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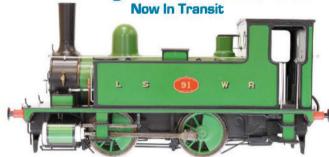
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Decorated samples starting to arrive



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#### O Gauge LSWR B4 0-4-0



DCC Ready / DCC Fitted & DCC Sound Fitted Options Available Pre-Order at your preferred Dapol stockist today

#### N Gauge Class 59 Decorated Samples Under Review



DCC Ready / DCC Fitted & DCC Sound Fitted Options Available Pre-Order at your preferred Dapol stockist today

#### All New N Gauge Class 66



DCC Ready / DCC Fitted & DCC Sound Fitted Options Available Awaiting final CADs Artworks Complete Pre-Order at your preferred Dapol stockist today







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## This month's



'Wimhill' is a wonderful evocation of a South Coast resort, served by BR Southern and Western Region services. See page 28 for the full story. CHRIS NEVARD

# MODEL RAIL Welcome

This last month brought an upsurge in practical output from my workshop. Taking an extended break from desk-bound duties over Easter allowed me to finish organising my modelling space, clearing out all manner of detritus in the process.

Countless jars of paint, each virtually empty or dried out, had been accumulating for the past few years, alongside glues and scenic materials that were way past their best. Once I get started with a clear-out, I often find it hard to stop and much more stuff ended up being disposed of than initially planned.

After filling a dozen or so bin liners, my storeroom shelves suddenly offered the kind of space that I'd been dreaming of for the past few years. Finally, I could begin organising my stocks of detailing parts, decals, figures, and assorted other bits and bobs.

Apart from appeasing my desire for a semblance of neatness and order, this has helped to boost my efficiency, as far less time has been wasted rooting around for that elusive set of buffers or couplings.

Perhaps I should get out more, but the joy of working in a less chaotic environment has certainly boosted my modelling mojo, with a number of locomotive and rolling stock projects coming to fruition in short order. Furthermore, my main layout endeavour, which had become an impromptu storage shelf, is now clear and ready for the scenic stages to begin.

Am I alone in finding such comfort in a neat workspace, or is a cluttered environment more conducive to 'creative' pursuits? Each to his/her own, I guess...

On a different note, we recently bade

www.facebook.com/modelrail www.twitter.com/modelrailuk www.instagram.com/modelrailmag





one of the first products of George's newly reorganised workshop is a customised 'PWM' 165DE. See page 45 to see how the model gained its work-stained appearance.

farewell to Samantha Toombs, who had filled the role of Model Rail's editorial assistant for the past few years. She'll be greatly missed, but we send her our best wishes for the future. Enjoy your modelling!

**George Dent** Editor

#### Meet the team behind the UK's best modelling magazine



**Chris Leigh** Active in the hobby since his teens - he can claim to be experienced.



01209 705459.

**Chris Gadsby** The smaller the detail, the more interested he is.

## This month's contributors













#### Model Rail essential information

Q: Looking for an old feature but can't remember which issue it was in?

A: Check out the online index, kindly provided by UK Model Shops, at www.ukmodelshops.co.uk/

Q: Want to order one of our exclusive models? A: Go to www.modelrailoffers.co.uk or call

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A: Go to www.greatmagazines.co.uk or call 01858 438884

Q: Have a problem or query about our digital magazines?

A: Visit www.greatmagazines.co.uk/faq

Q: Membership issue not arrived?

A: Call our Subscriptions Department on 01858 438884.

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This month's Big Picture comes from
Wayne Sharrock's 'Wheal Penbasset'.

**News**The latest news in railway modelling, straight from the manufacturers.

News Real
Ben Jones looks at some of the latest developments on the 'big railway'.

21 Show & Tell
The place to share your projects with the *Model Rail* community.

Staff Show and Tell
The Model Rail team show you what they have been working on this month.

Inside Track
Ben Ando discusses the pros and cons of batch production.

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planned extension to 'Colebourne Junction'.

Masterclass: PWM
A detailed history of the PWMs, plus how you can customise them.

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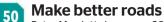
# BECOME A MEMBER...

...and save money with the latest offer see p26

# Workbench

#### **Looking for a previous article?** Search the online index at:





Peter Marriott shows you 30 ways you can build better roads on your layout.

Model a Super Saloon
Chris Leigh adds variety to his fleet by creating Collett's Super Saloon.

Recreate wagon loads
George Dent continues his mission
to add realistic loads to engineers' wagons.







#### **Know Your Stuff**

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Opening the box

#### The Big **Picture**

There are many positive aspects of building micro layouts, cost being a major advantage. However, they can also be created quickly (before you lose interest!) and they let you try every aspect of the hobby in a relatively short space of time. Wayne Sharrocks was able to get his 'Wheal Penbasset' layout built in just six months, despite the size constraints forcing him to scratchbuild a lot of the project just to get it all to fit in. You'll be able to read about how he made such a realistic looking 'OO' gauge layout - that is just nine inches wide - in an upcoming issue of Model Rail. Photography: CHRIS NEVARD





# MODEL RAIL, KERNOW MRC AND HELJAN SAY 'THANK YOU'

ernow Model Rail
Centre (KMRC), Model
Rail and Heljan paid
thanks to Peter Martin
and his sons Paul and Richard,
who had kindly helped us during
the research stage of our joint
'PWM' 165DE project. On a recent
visit to the Swindon and
Cricklade railway, where 97651 is
currently preserved, KMRC's
Graham Muspratt presented
the Martin family with a trio of
'PWM' models.

As well as Model Rail's range of 'PWMs' (see page 103), KMRC also has a handful of exclusive weathered versions on offer, while Heljan has produced two versions of the Ruston & Hornsby 0-6-0 under its own banner, depicting generic industrial liveries.

Web: www.modelrailoffers.co.uk www.kernowmodelrailcentre.com www.heljan.co.uk

Right: With preserved 97651 in attendance, KMRC's Graham Muspratt (far right) presents Peter Martin (second left) and his sons Paul and Richard with a selection of 'PWM' models.



# EXCLUSIVE 'SLIM JIM' FOR KMRC Kernow Model Rail Centre's latest exclusive locomotive commission is now in stock, depicting Class 33/2 D6593 in

commission is now in stock, depicting Class 33/2 D6593 in preservation-era BR green with small yellow panels. High-intensity lamps and modern overhead warning symbols are key features of the prototype, which hauled Valley Line services in South Wales during the late 1990s, along with various main line charters.

D6593 currently resides at The Battlefield Line and KMRC's model is based on Heljan's latest '33/2' tooling (MR312), featuring a 21pin DCC socket and improved directional LED lighting.

Price: £209.95

Availability: www.kernowmodelrailcentre.com



# STOP PRESS: ACCURASCALE CLASS 37/4 ARRIVES

The first of Accurascale's hotly anticipated Class 37 production models began to arrive as we closed for press, with the initial production batch featuring refurbished Type 3s. Our sample depicts 37423 Spirit of the Lakes, in Direct Rail Services blue, complete with rebuilt nose ends and light clusters. Look out for a full review in next month's issue...

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# CLASSIC 0-4-0ST GETS NEW PRODUCTION RUN

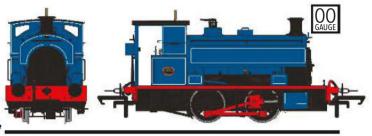
First released in 2018, Hattons exclusive model of Andrew Barclay's classic O-4-OST is to go back into production, in both 14in and 16in cylinder format. Featuring the same specification as previous batches, a total of nine new livery options will be available, including National Coal Board and ICI-operated examples.

For modellers with a preference for freelance modelling, there'll also be a trio of unbranded and un-numbered liveries. Each version is to be produced in strictly limited qualities and, with previous batches selling through quickly, early pre-ordering is recommended.









#### What's planned?

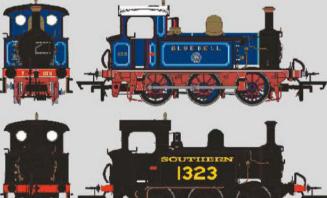
- ♦ H4-AB14-009 Andrew Barclay 14in, No. 47, NCB blue
- ♦ H4-AB14-010 Andrew Barclay 14in, Carbon, NCB lined blue
- H4-AB14-O11 Andrew Barclay 14in, Caledonia works grey
- H4-AB14-O12 Andrew Barclay 14in, Efficient, lined green
   H4-AB14-O13 Andrew Barclay 14in, Victory, maroon with 'wasp' stripes
- ♦ H4-AB14-O14 Andrew Barclay 14in, un-numbered, lined blue
- ♦ H4-AB16-005 Andrew Barclay 16in, un-numbered, lined green
- ♦ H4-AB16-006 Andrew Barclay 16in, Wallace, ICI lined green
- ♦ H4-AB16-007 Andrew Barclay 16in, un-numbered, lined dark blue

Price: £85.00 each When's it due? Q2 2024

Availability: www.hattons.co.uk

#### **RETURN OF THE 'P'**

After almost five years, the South Eastern & Chatham Railway P Class O-6-OT returns to the Hattons Original range, owing to popular demand. New numbers and livery options are offered, including the austere SECR 'Goods' green scheme, along with Southern and BR versions. There'll also be a re-run of No. 323 in Bluebell Railway lined blue, owing to repeated requests by customers. Models can be pre-ordered now, with delivery due early next year. Demand is likely to be high, so don't hang around!



#### What's planned?

H4-P-017 SECR P Class, No. 325, SECR lined green H4-P-018 SECR P Class, No. 178, SECR 'Goods' green

H4-P-019 SECR P Class, No. 1323, SR black

H4-P-020 SECR P Class, No. 556, SR olive green

H4-P-O21 SECR P Class, No. 31555, BR black, early emblem H4-P-O22 SECR P Class, No. 31557, BR black, early emblem

H4-P-012 SECR P Class, No. 31557, BR DIACK, early emblem H4-P-012 SECR P Class, No. 323 Bluebell Railway lined blue

Price: £85.00 each When's it due? Q2 2024

Availability: www.hattons.co.uk



#### **SNOWPLOUGHS & 'WARWELLS'**

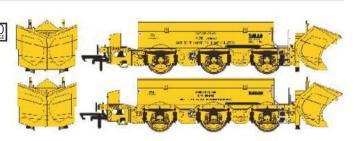
Also due for further production runs under the Hatton Original brand, is the Beilhack snowplough, which will be offered in twin-pack sets. The first pair caters for the 1990s era, with British Rail yellow ADB965580/1, which was based at Crewe and Carlisle during that decade.

The second twin-pack features the same prototype pair, but in

post-refurbishment condition and in Network Rail black livery. Both packs are priced at £70.00 per pair.

The popular 'Warwell' wagon will go into its third production run, with a wide range of liveries available to suit the 'Big Four' and BR eras, in both original and refurbished (air-braked) condition. They're available now, priced at £25 each. **Availability:** www.hattons.co.uk







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to view the full range of Class 92 locomotives currently available to order.





# FIRST & LAST '66' FROM ACCURASCALE

wo exclusive models have been added to the first production run of the ex-Hattons
Class 66 tooling, which is being enhanced and expanded by Accurascale, featuring the first and last '66s' to be built for the UK market.

Landing on UK soil in April 1998, 66001 was the first of 250 locomotives ordered by EWS and the design proved a game-changer, revolutionising railfreight operations and leading to several other operators placing orders for similar machines.

Eventually, 66779 would become the final '66' to be built expressly for a UK operator, joining the GB Railfreight fleet in 2016.

Both special editions will be available only via the Accurascale website and each will feature prototype-specific features. 66001 will sport EWS red/gold livery, complete with red grilles (as originally supplied), along with unique lashing brackets atop the headstocks and horn grilles mounted almost flush.

Meanwhile, 66779 Evening Star will be turned out in lined BR



green and will include the revised cab vents, sandboxes, cab front recesses and the distinctive commemorative hell When's it due? Q1 2024 Price: £169.99 (DCC-ready), £259.99 (DCC sound) Availability: www.accurascale.co.uk

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#### **DEPARTMENTAL Mk 2 DUO**

Further additions to the Accurascale Exclusives range consist of a pair of BR Mk 2c coaches in Departmental condition. Former First Open DB977390 was converted to a brake force runner for the BR Civil Engineers' Mobile Track Assessment fleet in 1987, given the TOPS code of QXA and gaining a red waist-level stripe to the blue/grey livery.

Even more striking was former Brake Second Open

DB977787, acquired by the Civil Engineering department at Preston for use on the northern section of the West Coast Main Line and repainted into the popular 'Dutch' grey/yellow scheme.

Both models will be added to

Accurascale's Mk 2c production run, with delivery expected towards the end of the year. Presented in special packaging, they're available to pre-order now, only via www.accurascale.co.uk Price: £59.95 each









**'KOYLI' COMMISSIONED BY** LOCOMOTION

The latest addition to Locomotion Models' National Collection in Miniature series will be Class 55 'Deltic' No. 55002 Kings own Yorkshire Light Infantry. Affectionately known as 'KOYLI'. 55002 was claimed for the National Railway Museum at York, owing to the name's affiliation with the White Rose county.

Produced as part of Accurascale's second production batch of 'Deltics', featuring several upgrades to the original tooling, the model will depict 'KOYLI' in early-1970s condition, sporting Rail blue livery and alpha-numerical headcode panels. Both DCC-ready





and DCC sound-fitted versions are on offer and pre-orders are now being taken, for just a £30 deposit. Price: £169.99 (DCC-ready),

£259.99 (DCC sound) When's it due? 2024 Availability: www. locomotionmodels.com

#### In Brief



#### **BACHMANN DONATES TO** 'J72' OVERHAUL

Staff from Bachmann Branchline visited the North Eastern Locomotive Preservation Group (NELPG) at its Hopetown Works in Darlington, to present the group with models of 'J72' No. 69023 and a cheque for £504 towards the overhaul of the real 0-6-0T.

The real 'J72' should make its return to steam in time for the 200th anniversary of the opening of the Stockton & Darlington Railway in 2025 and Bachmann's donation came courtesy of proceeds from its 'OO' gauge model of No. 69023. Just a few remain in stock at time of writing, and are available exclusively to Collectors Club members. See www. bachmann-collectorsclub. co.uk for more details.



Bachmann's Richard Proudman hands over a cheque to NELPG members working on the restoration of 'J72' No. 69023.

#### **CORRECT CLASS 319 PARTS** AVAILABLE FOC

The Farish Class 319 EMU won many plaudits last year, despite a few detail inconsistencies. To Bachmann's credit, customers can now claim replacement bogie frames for the Network SouthEast version (cat. No. 372-875) or bogie and replacement bodyshell for the TSOL car for the Thameslink model (cat. No. 372-876).

Proof of purchase will be required. Email: service@ bachmann-europe.co.uk

#### **ANOTHER 'QUARRY' HUNSLET JOINS RANKS**

Owing to the success of Bachmann Narrow Gauge's recent 'Quarry Hunslet' 0-4-0ST, a further version was released in late April, depicting Holy War, one of 11 'Alice' class locomotives built for the Dinorwic Quarry in North Wales in 1902.

Initially known simply as No. 3, the Holy War nameplates were applied in 1908 and the prototype spent its working life toiling away at Dinorwic's high level works, being housed in the highest engine shed in Britain, at over



1,800ft above sea level Retired in November 1967, Holy War had been the last working steam locomotive within the Welsh slate quarries and was immediately bought for preservation. It is now resident at the Bala Lake Railway.

Bachmann's model features the same specification as earlier releases, including a powerful coreless motor and

flywheel, plus a 6pin DCC socket and they're available now from the Bala Lake Railway's shop, with

proceeds from sales helping to support the railway. Price: £149.95

Availability: www.shop. bala-lake-railway.co.uk

#### FARISH RELEASES PICTURES OF EMU PROGRESS

Bachmann Europe has revealed images of livery samples for the forthcoming Farish Class 350 and Class 450 electric

multiple

sporting

units.

TransPennine Express and South West Trains liveries respectively.

The '350' unit sports a rooftop pantograph on one of the intermediate cars, while the SWT '450' has an empty space atop the roof, reflecting the fact that these latter units operate on the third-rail system only.







Available to order NOW from www.rapidotrains.co.uk or your local Rapido Trains UK stockist



# SOUND PRICE & FINESCALE WHEELS FOR CAVALEX '56'

Further progress on Cavalex Models' Class 56 project has been announced, with the finalisation of the DCC sound-fitted models pricing at £289.95. Recording of authentic '56' tones was completed last October and plenty of time has been spent optimising the sound files by ESU, which will interact with the model's independently powered roof fans. An automated flange squeal effect will also be included. while a power bank unit will help to keep the sounds running despite any power fluctuations from the rails.

Also announced is a choice of drop-in wheel sets to allow for simple conversion to 'EM' or 'P4' gauge. These sets are available to pre-order now, at just £20 per set. **Web:** www.cavalexmodels.com



OO GAUGE

# RAPIDO ANNOUNCES MORE 16in HUNSLETS

Five new versions of the impressive Hunslet 16in 0-6-0ST (see MR311) have been announced by Rapido Trains UK, depicting various colliery liveries, along with the Embsay & Bolton Abbey Steam Railway's preserved *Beatrice*. Prices have been held from the first batch and the new versions are expected before the end of the year.

#### What's planned?

- ♦ 903013 Hunslet 16in, No. 1705/1945 Beatrice, lined green
- ◆ 903014 Hunslet 16in, No. 1983/1940 Clement,

NCB black with yellow stripes

- 903013 Hunslet 16in, No. 3855/1955 *Glasshoughton* No. 4, Glasshoughton Colliery lined green
- 903013 Hunslet 16in, No. 2375/1942 John Shaw, NCB lined green
- ♦ 903013 Hunslet 16in, No. 3715/1952 *Primrose* No. 2, red

When's it due? Late 2023

Price: £129.95 each (DCC-ready), £229.95 (DCC sound)
Availability: Rapido Trains UK stockists

Web: www.rapidotrains.co.uk

#### ...AND A RAKE OF NEW WAGONS

Yet more 'OO' wagons are due to arrive from Rapido Trains UK, based on various GWR designs. The wood-bodied 'Mink A' vans, built to GWR Diagrams V14/V16 will feature different roof and door styles, along with alternative brake and wheel types. Further van variety will come in the form of the GWR's 'Y4' banana vans, while the Diagram O11/O15 opens will also be replicated.

All three wagon designs will be offered in a wide range of GWR and BR liveries, along with





a handful of Departmental and private owner schemes.

The Railway Clearing House 'standard' open wagon design from 1907 is also to be produced by Rapido in 'OO', offering a colourful array of private owner schemes in five and seven-plank





form. Multiple patterns of buffers and brake gear will feature in the range, with solid or split-spoked wheels and a pair of GWR versions will also be included.

All new wagons are priced at £32.95 each and they're due to arrive later this year/early 2024.



#### In Brief

QQ

OO GAUGE



#### FIFTY YEARS OF DELUXE MATERIALS

From humble beginnings in Barrow-in-Furness in 1973, Deluxe Materials has grown into one of the leading sources of adhesives, scenic materials and aids for modellers. Fresh from university, John and Vivienne Bristow initially launched the firm from their home and have spent the past five decades developing a wide range of innovative new products, with modellers in mind.

As the business grew, the team moved to more practical premises in Hampshire, where they remain today. The Deluxe brand is distributed worldwide, servicing a myriad of modelling and craft disciplines. In more recent years, the team has also shown a commendable commitment to making safer and more environmentally friendly products.

Here's to another 50 years!



# The Palbrick B Wagon OO Gauge

The Palbrick Wagon dates back to the mid 1950's, seeking to replace the ancient brick wagons used by LNER.

Originally medium goods wagons converted to carry pallets of bricks, the Palbrick featured 3 different variations for different sizes of pallets. Palbrick A could carry 13 tons, whereas B and C could carry 16 tons.





Across all of the roughly 1400 Palbrick wagons that were made, all of them had some changes or variations to them that differed from the standard templates.

We will produce both body shapes of the Palbrick B wagon, the most common.

Available 1st Qtr 2023 3 car rake for £60.00

In stock ready to ship



Order now from

www.krmodels.net

#### **HORNBY MAGNETIC COUPLERS**



Hornby's sets of magnetic, NEM-compatible coupler units offer easy operation and a far superior appearance to regular tension locks and most other traditional 'auto' couplers. Supplied as an optional fitment with several recent Hornby coach releases, the couplers are now available separately, with eight pairs provided in each pack.

The vacuum pipe option is available in 17mm or 20mm lengths, providing an option to suit different vehicle types and the curvature of your layout. Standard NEM tails are incorporated, so they simply slot into the coupler pockets found on most contemporary RTR 'OO' gauge stock. The twin magnets are powerful enough to cope with long rakes of rolling stock and vehicles are easily coupled together on the rails. To uncouple, the vehicles need to



vehicles with standard NEM pockets, provided there's enough clearance.

Web: www.hornby.com

Products: • R7398 Magnetic buckeye couplings • R7399 20mm Magnetic vacuum pipes • R7400 17mm Magnetic vacuum pipes Prices: £15.99 per pack Availability: Hornby stockists





#### **NOISY BIKERS**

Sound definitely adds an extra dimension to a layout and Noch's range of scenic sound modules has expanded with this pack of two motorcyclists. Fully painted and ready to install, the two bikes and riders are ideal for a post-1960s scene, although the rider and pillion passenger on one vehicle are not wearing helmets.

Along with the motorbikes, the pack provides a miniature circuit board and speaker, which can be mounted to the baseboard. The sound unit requires an AC or DC power supply, using either a battery pack (not included) or the standard 16V accessory





output provided on most model railway controllers. Installation instructions are provided and, when activated, the sounds run for approximately 20 seconds.

be gently pulled apart by hand.

couplers are great for steam and

freight stock, a pack of buckeye

Hornby's Mk 3 and Mk 4 stock, on

While the vacuum pipe

early diesel-era coaches and

Designed ostensibly for

which they perform perfectly,

they can also be used on other

couplers is also available.

The volume is not adjustable, although a suitable resistor could be connected between the positive output terminal and the speaker's cable. Incidentally, the bikes and riders are also available separately from the sound unit (Noch ref. 15904). (PM)

Products: Noch 12844 Motorbike Sound Scene set

Price: £38.50

Availability: Noch stockists Web: www.noch.com



#### IN THE BUSHES

Primo Models is a useful source of high-quality model trees, bushes and grass tufts. These 'bushes', which are probably hetter described as small trees are available in a number of shades, while there's also an option of flowering foliage in white, red, yellow or purple. Each pack provides ten specimens and the bushes stand around 50mm tall, with the foliage boasting a convincing appearance and texture.

Packaged in environmentally friendly cardboard, the trunks can be pushed into the landscape to provide shorter





**Products: Primo Models** Regular Bush packs Price: From £36.00 per pack of ten Availability: www.primomodels.co.uk



**WONDER-WALLING** 

This handy pack of textured plastic sheets come pre-finished in a convincing, aged appearance, suggesting either concrete or rendered masonry.

Each sheet features decorative brick courses at the top and bottom, while the pale stonecoloured main section contains a convincing array of weather stains and saline leaching

The sheets also possess a subtle matt sheen, which adds further to the sense of realism.

Just the job for overlaying a card, plastic or sheet timber base structure, the sheets are easy to trim and install with PVA glue or contact adhesive, or even double-sided tape, while there's no need for painting. Other sheets are available to represent other building materials.

Product: Busch 7441 Stone Wall **Decor Sheets** 

Price: £3.25 per pair

www.goldenvalleyhobbies.co.uk

#### **BONDED WAREHOUSE AND MORE FROM SMS**

Robertson's Bonded Warehouse is an impressive structure, supplied in kit form and consisting of laser-cut MDF and laserboard components, plus printed brick overlay sheets and glazed windows. The structure is based on a real warehouse at Limehouse Wharf, London and the kit also provides small details. such as wall-mounted hoists and optional 'ghost' signs. The full relief kit demands a footprint of 168mm by 105mm and stands

Alternatively, the warehouse's frontage and end walls are also available in low relief versions,

almost 150mm tall.

both standing just 6mm deep. Based loosely on the structure at Levisham, on the North York Moors Railway, is a small platform

> shelter that's just the thing for a rural halt. Consisting of a laser-cut MDF framework and printed overlays, a choice of red brick or sandstone finish is provided, along with four different regional

schemes. A selection of vintage enamel signs and advertisements are an added bonus.

interior colour

A less glamorous structure is the outside privy kit, complete with detailed interior

> toilet Preweathered roof slates and red brick printed overlays give the outhouse a lived-in



and the door can be posed open, if desired.

Also available is a pair of 3D-printed diesel-powered cement mixers, supplied fully painted and ready for use on a post-1970-era building site scene.

Products: • KX090 Robertson's bonded warehouse kit (£24.99) • KX095 small platform shelter (£9.49) • KX096 Outside privy/ outhouse (£6.99) • AX515 Diesel cement mixers (£10.79)

Availability: Scale Model Scenery Web: www.scalemodel



#### **POLICE RANGER**

HO Busch has released a 1:87 scale ('HO') model of the Ford Ranger long wheelbase pick-up truck in UK police livery.

Part of Busch's drive to replicate a wide range of European police vehicles, this model depicts a hardtop. double-cab Ranger from 2016.

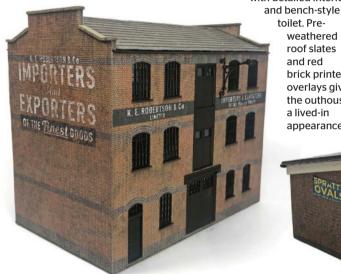
Featuring right-hand drive, the finish is applied to a good standard and there's a fine array of detail.

No licence plates are installed and the rooftop light bar is rendered in clear plastic, rather than the transparent blue/red of the real thing, although these would be easy to touch in with translucent paints.

Although smaller than true 1:76 scale/'00' gauge road vehicles, it will look good set in the rear of a scene. (PM) Product: Busch 52827

Ford Ranger Price: £32.25 Web:

www.goldenvallevhobbies.co.uk





#### ...and finally

#### **Unusual scenes** captured by the lens of Chris Nevard

Spring and autumn are frequently associated with stormy weather, and in the rose-tinted land of the inch-high folks, the little people are tidying up after such an episode. As is the norm, and much like in the full-sized world, there is much discussion but little useful activity. All the usual suspects have appeared to dish out 'advice'. It's likely they'll all give up shortly and have a strategy meeting in the nearby pub.



#### 'TT:120' BUILDING DETAILS FROM YORK MODELMAKING

Modellers tempted to dip their toes into 'TT:120' will be faced with a need to scratchbuild, so the introduction of a range of laser-cut details from York Modelmaking is very welcome. Sheets of selfadhesive slates and roof tiles, of varying shapes and colours, will help add relief to rooftops, while doors and windows, plus brick headers and canopy valances - all of varying profiles and sizes will greatly speed up construction. It's worth noting that the sash windows and doors consist of dual layers for extra realism. Price: Various

Availability: York Modelmaking Web: www.vorkmodelrail.com



#### EXHIBITION DIARY – MAY 13-JULY 15 2023

#### **May 13**

#### LANCING, WEST SUSSEX.

Sompting and District Model Railway Club, St Peter The Apostle Church, Bowness Ave, Sompting, Lancing BN15 9TS. Time: 1000-1630. Admission: Adult £3.50, Child £1. Web: www. somptingdistrictmrc.co.uk

#### LUTTERWORTH, LEICS.

Lutterworth Railway Society, Model Railway Exhibition. The Wycliffe Rooms, George St, Lutterworth, Leics LE17 4ED. **Time:** 1000-1630. Admission: Adult £5, 15-18-year-olds £3. **Tel:** 01788 310354. **Web:** www. lutterworthrailwaysociety.co.uk

#### May 13 & 14

HAYLE. CORNWALL. Hayle Railway Modellers May Exhibition, Hayle Day Care Centre, Commercial Road, Hayle, Cornwall TR27 4DE. Times: Sat 1000-1700, Sun 1000-1600. Admission: £5, Accompanied under-14 free

#### IMMINGHAM, NORTH EAST

LINCS. Immingham Model Rail Show, Immingham Museum, Civic Centre, Pelham Road, Immingham DN40 10F. Times: 1000-1700. Sun 1000-1600. Admission: Adult £4. Child £1, Family £9. Web: www. imminghammuseum.org Email: admin@imminghammuseum.org

KIRKALDY, FIFE. Glenrothes Model Railway Club Annual Model Railway Exhibition, Templehall Community Centre, Kirkaldy KY2 6EX. Times: Sat 1000-1600, Sun 1030-1600. Admission: Adult £5 Child £2 Family (2+2) £10. Email: angus@ alenrothesmrc.ora.uk

#### MARKET DEEPING, LINCS.

Market Deeping Model Railway Club Exhibition, Stamford Welland Academy, Green Lane, Stamford PE9 1HE. Times: Sat 1000-1700, Sun 1000-1630. Admission: Adult £7.50, Child £3.50, Family £20.00 (max. five). Web: www.mdmrc.org

YORK, NORTH YORKS. N Gauge Society, National Railway Museum Conference Centre, Leaman Road York YO26 4X I Times Sat 1000-1700, Sun 1000-1600 Admission: Member free, Adult £5, Senior citizen & child £3, Family (2A+3C) (£15). Email: areagroups@ ngaugesociety.com Web: www. ngaugesociety.com Facebook: www.facebook.com/NGaugeSociety

#### May 20

ELY, CAMBS. Ely and District Model Railway Exhibition, Ely College, Downham Road, Ely, CB6 3DY. Time: 1030-1630. Admission: Adult £6, Child (5-16) £3, Family (2A+2C) £15, Under-5s free. Tel: 01353 721280. Email: davidjabbott70@gmail.com Web: www.elymrc.org.uk

#### **WORTHING, WEST SUSSEX.**

SWING Model Railway Exhibition, Durrington High School, The Boulevard, Worthing, West Sussex BN13 1JX. Time: 1000-1630. Admission: Adult £8, Child free, Accompanied under-14 £6. Web: http://swing.model-railway.org. uk/exhibition.php

May 20 & 21 ORPINGTON, KENT. Orpington & District Model Railway Society Pratts Bottom Model Railway Exhibition 2023. Pratts Bottom, Orpington, Kent BR6 7PQ. Times: 1000-1700 both days. Admission: Adult £5, Child £1, Under-3 free. Tel: 07885 270437

SHEFFIELD, SOUTH YORKS. Neepsend (Sheffield) Model Railway Society, Grenoside Community Centre, Main Street, Sheffield S35 8PR. Times: Sat 1000-1700, Sun 1000-1630. Admission: Adult £7, Child £3, Family 2+2 £15. Web: www.neepsendmrs.weebly.com

#### May 26 & 27

BANGOR, CO DOWN. Model Railway Exhibition, First Presbyterian Church, Main Street, Bangor BT20 4AG. Times: Fri 1900-2130, Sat 1000-1630. Admission: Adult £6, Concession £4. Child £3. Family £12. Web: www. firstbangormrc.co.uk Email: info@ firstbangormrc.co.uk

#### **May 27**

BILLERICAY, ESSEX. Billericay Model Railway Group, Hannakins Farm Community Centre, Rosebay Ave Billericay CM12 OXP. Time: 1000-1600. Admission: Adults and Unaccompanied children £5. Concession £4.50. Under-18 £3, 5 and under Free, Family £13. Email: exhibitionmanager@billericaymrg. org Tel: 07767 390172. Web: www. billericaymrg.org

#### May 27 & 28

AYLESBURY, BUCKS. Risborough & District Model Railway Club, RAILEX 2023 Model Railway Exhibition. Stoke Mandeville Stadium, Guttmann Road, Aylesbury, Buckinghamshire HP21 9PP. Times: Sat 1000-1730, Sun 1000-1630. Admission: Adult £10 (18+), Child £6 (5-17), Family £24. Email: railexmanager@rdmrc.org.uk Web: www.railex.org.uk/

**BROCKENHURST, HANTS.** New Forest Model Railway Society, Brockenhurst Village Hall, Highwood Road, Brockenhurst, Hants SO42 7RY. Times: Sat 1000-1700, Sun 1000-1630. Admission: Adult £6, Child Free. Web: www.nfmrs.org

#### ROBERTSBRIDGE, EAST SUSSEX.

Rother Valley Railway Supporters Association Model Railway Exhibition, Robertsbridge Village Hall, Station Road, Robertsbridge, East Sussex TN32 5DA. Times: 1000-1600 both days. Admission: Adult £4, Accompanied children free. Return Sunday free with Saturday's ticket. Tel: 01580 881833.

#### May 28

HODDESDON MODEL AND RAILWAY **CLUB, MODELLING EXTRAVAGANZA.** 

The Club Site, The Old Mill, Mill Lane, Broxbourne, Herts EN10 7AX. Time: 1000-1600. Admission: Adult £3. Child £1. Tel: 07708579822. Web: www. hoddesdonmrc.org.uk

TAUNTON, SOMERSET. Taunton Model Railway Group, Bishops Lydeard Station, Platform 1, West Somerset Railway, Taunton TA4 3BX. Time: 1000-1630. Admission: Small charge applies. Web: www.tauntonmodelrailwaygroup.co.uk

#### June 3

HILLINGDON, LONDON, Hillingdon Railway Modellers - Test Track Open Day, Yiewsley Baptist Church Hall (side entrance), 74 Colham Avenue, Yiewsley, Hillingdon, London UB7 8HF. Time: 1000-1500. Admission: £6. Tel: 0208 368 4090. Web: www. hillingdonrailwaymodellers.co.uk

LUDLOW, SHROPS. Craven Arms & District Model Railway Circle Model Railway Exhibition, Ludlow Racecourse, Bromfield, Ludlow, Shropshire SY8 2BT. Time: 1000-1600, Admission: Adult £5. Under-16 free. Tel: 07510 109347

**SLEAFORD LINCS.** Sleaford and District Model Railway Club, St George Academy, Westgate, Sleaford NG34 7PP. **Time:** 1000-1600. **Admission:** Adult £6, Child £4, Family (2+2) £12. Tel: 01529 419901.

#### June 9 & 10

TAUNTON, SOMERSET. Taunton Model Railway Group in conjunction with West Somerset Railways Diesel Gala, Bishops Lydeard Station, Platform 1, West Somerset Railway, Taunton TA4 3BX.**Time:** 1000-1630. **Admission:** Small charge applies. Web: www. tauntonmodelrailwaygroup.co.uk/

#### June 10

PRESTATYN, CLWYD, Rhyl & District Model Railway Club, Open day miniexhibition, Christ Church Community Hall, rear of Christ Church (Parish Church), High Street, Prestatyn, Clwyd LL19 9AR. Time: 1000-1600. Admission: Adult £1, Accompanied child (16 and under) free. Web: www. rhylmodelrailclub.co.uk

MILTON KEYNES, BUCKS. Milton Keynes Model Railway Society 2023 Exhibition, The Ridgeway Centre, Featherstone Road, Wolverton Mill, Milton Kevnes MK12 5TH. Times: 1000-1630. Admission: Adult £6, Child (5-16) £2. Under-5 free. Web: www.mkmrs.org.uk

SELBY. NORTH YORKS. The second Micro Model Railway, Selby Superbowl, Unit 1 Bawtry Road Selby YOS 8NA Time: 1000-1600. Admission: Adult £2.

#### June 10 & 11

BAKEWELL, DERBYSHIRE. Chesterfield Railway Modellers, Peak Model Railway Exhibition 2023, Agricultural Business Centre, Agricultural Way, Bakewell DE45 1AH. Times: 1000-1700 both days. **Admission:** Adult £5, Concession/ Child £4, Family - £12. Tel: 01246 271099. Email: bakewellexhibition@ chesterfieldrailwaymodellers.co.uk Web: www.chesterfieldrailwaymodellers.co.uk

GLASGOW, SCOTLAND. Strathclyde O Gauge Group GlasGOw 2023, Pollokshaws Burgh Halls 2025 Pollokshaws Road, Glasgow G43 1NE. Times: Sat 1000-1600: Sun 1100-1600 Admission: Adult F6. Accompanied child free. Tel: 0141 637 4189. Email: wcampbell23@yahoo.co.uk.

#### SHEPTON MALLET SOMERSET.

Shepton & District Model Railway Society's 46th Annual Model Railway Exhibition, Mendip 2023, Shepton Scout Hall & SDMRS Clubroom, Old Wells Road, West Shepton BA4 5XN. Times: Sat 1030-1630, Sun 1000-1600. Admission: Adult £6, Accompanied child free. Facebook: Facebook@SandDMRS

#### June 17

BISHOP MIDDLEHAM, CO DURHAM. Rotary Newton Avcliffe and Shildon MRC. Bishop Middleham Village Hall. Front Street, Bishop Middleham, Ferryhill DL17 9AJ. Time: 1000-1700. Admission: Adult £6, Concession £4, Child 50p Wheelchair users free. Tel: 07870 210269. Email: iandeburrows@amail.com Web: www.newtonavclifferotarv.org.uk Facebook: @rotarvnewtonavcliffe

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#### **BURTON-ON-TRENT, EAST STAFFS.**

The 7mm Narrow Gauge Association. Burton-upon-Trent Town Hall. King Edward Place, Burton-upon-Trent DE14 2EB. **Time:** 1030-1630. Admission: Adult £7, Member £4, Partners and children free Web: www.7mmnga.org.uk

PLYMOUTH, DEVON. Tothill Community Centre, Plymouth PL4 9DA. Time: 1000-1600. Admission: Adult £2. Family £5. Concession £1. Under-12 free Tel: 07899 956008 Email: spotwatson1954@gmail.com

June 17 & 18
MERE, WILTS. Mere and District Railway Modellers, Mere Lecture Halls, Salisbury Street, Mere BA12 6HA. Times: 1000-1600 both days. Admission: Adult £5. Accompanied under-12 free. Web: www. mererailwaymodellers.co.uk

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#### July 1 & 2

**EXETER, DEVON.** The Junction 72A MRC + Upwey Junction Modelling Group, Rewe Parish Hall, Near Exeter, Devon EX5 4EU. Times: Sat 1030-1700, Sun 1030-1600. Admission: Adult £2. Accompanied under-16 free. **Tel:** 07989 178741. Email: thejunction72amrc@ gmail.com Facebook: www. facebook.com/thejunctionmrc Web: theiunction72amrc.weeblv.com

#### July 8 & 9

PENARTH, VALE OF GLAMORGAN. Barry and Penarth MRC Exhibition, St Cyres School, Sully Road, Penarth CF64 2TP. **Times:** Sat 1000-1630, Sun 1000-1600. Admission: Adult £6, Under-14 free. Facebook: Barry & Penarth MRC. Web: https://bpmrc.club

#### July 15

#### EASTBOURNE, EAST SUSSEX.

The Pevensey Bay Model Railway Club, Victoria Baptist Church Hall, Eldon Road, Eastbourne, East Sussex BN211UE. Time: 1000-1600. Admission: Adult £6, Child £1 (over 5). Family (2+2) £12. Web: www pevenseybaymodelrailwayclub.com

#### July 22

HITCHIN, HERTS. Letchworth MRS, The Priory School, Bedford Road, Hitchin, Hertfordshire SG5 2UR. Time: 1000-1630. Admission: Adult £5 Accompanied under-16 free. Web: www.letchworthmrs.org.uk

#### July 15 & 16

CUPAR, FIFE. Cupar & District Model Railway Club, CUPAR MODEL RAIL, The Corn Exchange, Cupar, Fife, KY15 4BT. Times: 1000-1630 both days. Admission: £6, Child free. Web: www. cuparmrc.co.uk

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LD12 - 3mm Flashing Red LD5 - 3mm Flickering Orange LD17 - 5mm (red, green, yellow, amber) LD15 - 5mm 12V (red, green, yellow) LD9 - 5mm Bi-Colour (rd/yl, gn/yl, gn/rd)

LD11 - 5mm Tri-Colour LD13 - 5mm Flashing Red LD4 - 5mm Flickering Orange



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CTR6

#### **Layout Wiring**

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	<u>10m</u>	<u>100m</u>
EW7/02	£1.60	£11.40
EW16/02	£2.30	£17.99
EW24/02	£3.29	£26.25
EW32/02	£4.29	£36.00
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SMT5	on/off/on	DPDT	£1.40	£1.12
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SMT7	[on]-off-[on]	<b>DPDT</b>	£1.90	£1.12



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# News Real What's happening on Britain's railways...

Our full-size railways are constantly evolving, providing fresh inspiration for modelling projects.

Ben Jones looks at a few of the latest developments that could soon be appearing on our layouts.

After more than 30 years as the backbone of commuter operations on the Great Eastern network, the remaining ex-BR Class 321 EMUs lost their final diagrams on April 3. Built by BREL York Works in 1988-90 for Liverpool Street and Euston commuter lines, the fleet was later concentrated on Great Eastern lines. GREATER ANGLIA



a not the state of the state of

■ Network Rail has installed a prototype modular footbridge near Craven Arms in Shropshire. The eye-catching FLOW bridge is designed to reduce the cost of eliminating dangerous foot crossings and can be assembled off-site and installed more quickly than traditional steel structures. If successful, NR plans to develop the design for use across the network. NETWORK RAIL

■ May sees the retirement of the oldest passenger trains in scheduled service in the UK. Southern is withdrawing the 1976-vintage Class 313s from Seaford-Brighton-Portsmouth 'Coastway' services as part of a fleet reorganisation.

On May 17 2022, 313212 calls at Barnham on its way to Portsmouth Harbour.

BEN LONES



▲ Hot on the heels of delivering Class 231 DEMUs to Transport for Wales, Stadler is now in the process of building 24 Class 756 tri-mode (electric/battery/diesel) FLIRT units at its Bussnang factory in north-east Switzerland. On March 16, 756107 is flanked by a narrow gauge EMU for Sweden (left) and a FLIRT EMU car for Swiss operator BLS. BEN JONES



## **Show & Tell**

The place to share your projects with the Model Rail community.

#### Merci, Model Rail!

I'm 18 years old, live in France and I have loved trains since I was very small. I used to shout as soon as I saw one, and it became an obsession. I'm not as crazy these days, but I still adore trains.

My grandfather used to have a train set in a special room and I used to sneak in and play with it when I was about ten years old. But he never really finished what he wanted to achieve, and wasn't into making realistic train scenery.

I always wanted a train set like his, but convincing my parents to give me the space for this was very difficult. Finally, on my 13th birthday, My parents and grandparents gave me a baseboard. I was so happy. With a bit of help laying the track, I was able to design and build on my own model railway! I was 13. and in paradise.

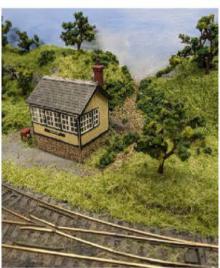
I've been buying *Model Rail* for years, and I've taken a lot of inspiration from it and all the different ideas from the *Model Rail* team. I'd like to thank you for your excellent work, providing professional and comprehensive magazines for children as young as me. I really enjoy reading the different articles.

In these images, you'll see my layout, which is based around an oval track, but the scenic modelling is concentrated on a straight section. Inspired by Paul A. Lunn in MR250's 'A Break from the Norm', I made a special exit for the trains to pass through, with scenery continuing in the start of the non-scenic section. I built a tunnel made of foam. At first I wanted to install a Metcalfe tunnel, but I didn't find it very realistic and as the track started to turn, it didn't give enough space for trains.

As it was my first train set, it was difficult to know how to get started, but having all your magazines helped, especially Chris Nevard's Workbench project in MR260 and George Dent's work in MR213/214. Having an airbrush also helped me to weather the train set and George Dent's advice was very useful.

I could make an endless list of all the





individual tasks I undertook, based on inspiration from your magazine, like the road surface, the platform, the ballast, the coal stockpile, the puddles, and much more...

As you can see, your practical articles



enabled me to build my train set as I wanted. If I had to do it again, there are some things I would have done differently, but I'm still proud of it.

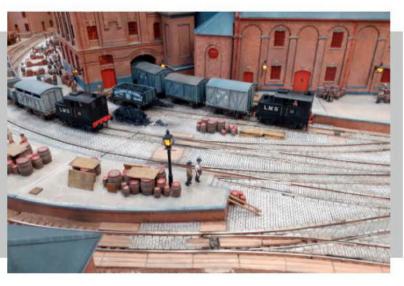
Quentin Harvey, France

#### **SENTINELS BREWING UP**

I help my friend Pete Goss run his current exhibition layout at various shows around the UK. Last year we wanted to strengthen the locomotive availability away from an all-Hornby Peckett fleet, and the re-released *Model Rail* Sentinels arrived just at the right time.

We've extended the operating period from the initial 1903 to 1903-35 so we can legitimately include the Sentinel presence, as a number of LMS examples serving the breweries did run to and from the exchange sidings at Burton. Our three Sentinels have been re-liveried from LNER to LMS and lightly weathered, fitted with DCC decoders and stay-alive packs - and they run superbly.

Colin Linley, by email



# **Staff Show & Tell**

A slice of Devon

**George Dent** has been putting the finishing touches to a new 'OO9' diorama.

ack in the February issue (MR309), I explained how I'd been persuaded to modify a basic 'OO9' gauge photographic backdrop into something more interesting. Having enjoyed building a laser-cut kit of Chelfham station, it seemed a shame to consign the building to storage, so I set about recreating a scenic diorama with Chelfham as the focal point.

After hacking out a chunk of the landform to house a modest platform (formed from 5mm thick foamboard), plaster blended everything together and a layer of DAS clay gave the platform surface a suitable texture. When everything had dried out, the painting could begin before the 'green stuff' was planted.

The idyllic beauty of the Devon countryside, through which the Lynton & Barnstaple Railway ran, always conjures up memories of balmy summer holidays. So my plan was to plant layers of static grass fibres that suggest a slightly 'burnt', faded look, while the shrubs and bushes lining the platform are in full flower.

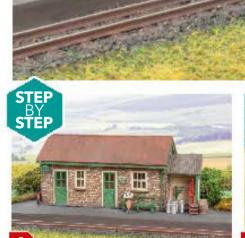
This is in no way a copy of the real Chelfham station, or anywhere else on the L&B for that matter. It has been created purely for a bit of fun and gives me something on which to pose narrow gauge stock and accessories.

There's a slight drawback, in that the station and its platform signs are unmistakably L&B, so it's no longer a 'neutral' photographic backdrop. Oh well, maybe I'll have to build another diorama, maybe with a decidedly Welsh flavour...?

#### Chelfham in 4mm scale

 Arch Laser OO907 Chelfham station building kit
 Price: £31.00

**Availability:** Osborn's Models **Web:** www.osbornsmodels.com



This station building kit, from Arch Laser, also provided the platform signs and bench, plus the weighing scales and chocolate machine seen within the lean-to.



A sheet of 5mm thick foamboard formed the platform, being set into the landscape contours and blended with plaster. A thin layer of DAS clay was applied to the platform surface (see MR309) and, when dry, was painted with acrylics.



The ballast needed reinstating beside the platform edge, secured with Ballast Bond adhesive. I prefer this to PVA as, although it cures hard, it's much easier to remove later, should you wish to make alterations or replace a faulty point.



An airbrush, loaded with a mix of Tamiya acrylic paints, was harnessed to create a more subtle, uniform appearance on the platform surface, as well as blending in the fresh ballast. A mix of earth brown and dark grey shades were used.



After fixing a variety of bushes into place - mostly reclaimed from previous projects - I built up several layers of static grass fibres, each being secured with extra hold hairspray. Short fibres were used initially, using various shades, with longer grass added last.

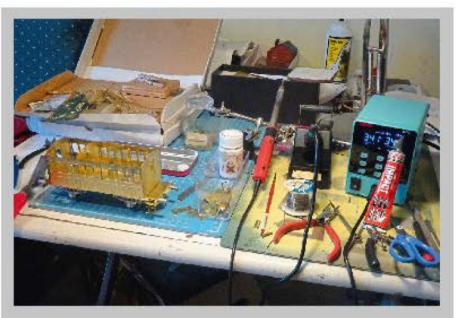




The station building was then secured to the platform. A few inevitable gaps occurred, so they were filled with an acrylic putty, applied with a cocktail stick and tidied with a damp brush. There's no need for sanding later, just touch-up the paintwork.



Shrubs and plants could now be added along the rear edges of platform, using a broad mix of foliage, tufts and coloured scatter material. Platform signs and other finishing touches completed the scene.



#### A different kind of station

**Chris Leigh** has taken the plunge and invested in a temperature-controlled soldering setup.

In this month's 'Backscene' (see page 138), I refer to my desire to get on with building some kits that I've had for a long time. Robert Kosmider's letter, which is still with the Lambourn Valley coach kits, is dated 2006, so I've had them for 17 years!

The purchase of a soldering station was the catalyst for opening the boxes and reminding myself that I had started building one of the pair. I had got no further than some preliminary work assembling the floor and solebars.

I've never owned a soldering station before and I had very little idea what I was buying. To avoid investing a fortune in something unsuitable, I bought from Amazon, the main criterion being price. I did not want to risk wasting much more than £50 so I ordered accordingly. Experience breeds caution and I have bought some rubbish from Amazon, including a foot pump which bent the moment I put my foot on it! Being Amazon, the soldering station arrived next day.

It consists of a control unit with a mains plug and a soldering iron permanently attached to the control unit by a lead about 4ft long. There is also a stand - which is immensely useful, and much better than any of my previous stands which were bought separately from the irons. The base of this stand includes a location for the strange heat-resistant sponge which looks like a piece of card but swells up when you wet it. This is for wiping the iron tip and, again, it has proved a boon to my soldering technique.

On the down side, the soldering iron itself is much smaller than I expected, only some 7in long, most of which is the handle. In the past, my 'heavy' soldering on kits was done with a 65 watt iron, which is a truly massive beast! It was immediately clear that the

soldering station was not going to give me the soldering power that I need for larger brass parts. However, I have found that my trusty old Henley Solon 25 watt iron (so old that it has 'Made in England' on the handle!) is enough for all the jobs I've needed so far, while the soldering station is brilliant for all the small work. And these coaches do have a substantial amount of small detail work that needs to be soldered.

The soldering station has a control knob by which you dial up the temperature. I had no idea what the temperature should be for the work I'm doing, so it has been a trial and error exercise. At least, if I need to solder any whitemetal parts I'll be able to lower the heat enough to give me half a chance of success. It also has a standby mode by which it switches the heat off when not used for a while and heats up again very rapidly when it is picked up. The two indications on the front of the control panel show the temperature to which it is set and the temperature it has reached.

I'm pleased, so far, and it has given me the confidence to complete the first coach and to tackle the second, which is unstarted. Then I'll turn my attention to the body of *Eadweade*, having never tackled an 'O' gauge locomotive before.



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Inside track with Ben Ando



Ben Ando is the founder of Revolution Trains and a regular contributor to Model Rail.

hobby has grown modellers have demanded variety - but they also want low prices >>>

Rapido has just announced a second batch of Hunslet 16in locomotives, offering a greater variety of liveries, albeit in limited quantities. f you read the letters pages of magazines, or internet forums, or even the Facebook pages of model railway manufacturers or enthusiast groups, it won't be long before you come across a post bemoaning the lack of availability of model 'X'.

In 'N' gauge in particular, there is much concern among modellers that some items of rolling stock – in particular BR Mk 1 coaching stock – can be hard to find in the shops.

Such issues are often framed as being a barrier to entry into the hobby.

The argument goes something like this: "I really need some coaches to run behind my 'Deltic'/Mallard/ locomotive of choice and I can't find any. How can we expect people to take up the hobby if common items like this are unavailable?"

Such 'shortages' of rolling stock are then blamed on batch production, with occasional nostalgic yearnings to the days when manufacturers were churning out the same locomotives and coaches, with the same running numbers and liveries, again and again.

It is fair to say that this method did ensure a steady supply of product to the shops; the problem was it was the same product.

I recall throughout my childhood it felt that if you wanted a 'OO' BR blue Class 47 it would be 47421; if you purchased a Class 55 'Deltic' it was inevitably 9006

The Fife and Forfar Yeomanry.

But as the hobby has grown modellers have demanded variety – but they also want low prices. And keeping a warehouse full of models ready for shops to order on the off chance that a customer wants that item costs money.

Batch production was developed as a way of providing ever wider variety of stock while keeping costs manageable. It allows manufacturers to more easily offer different liveries and vehicle running numbers, as well as detail variations to reflect the prototype.

Continuing with the example of Farish Mk 1s: at last count the SO, SK, FK, CK, BCK and BSK and catering vehicles RMB, RU and RFO have all been produced, along with all five Mk 1 Pullman vehicles and two types of sleeper. And that is not including NPCCS and Post Office vehicles!

Furthermore, many of these models are offered with either BR1, Commonwealth or B4 bogies.

It is obvious that no manufacturer can reasonably be expected to keep production lines constantly running for this variety of types.

It is true that some of the more common vehicles – especially Standard class – can be hard to find. But there are always second-hand stalls and, of course, just because it cannot be found on the web doesn't mean that a retailer without an internet presence doesn't have stock.

Batch production does mean that the availability can be intermittent, but for me this is a small price to pay for the variety of prototypes and multiplicity of running numbers.

And if you are the owner of a particularly hard-to-find item then its resale value will be higher too – this can be very useful if your interests change and you decide to sell off existing models.

Besides, if  $i\bar{t}$ s a popular model, then the manufacturer will produce another batch in due course – because why wouldn't they?



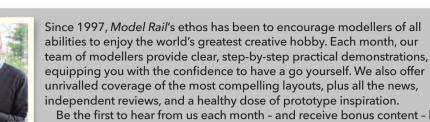
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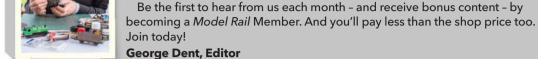
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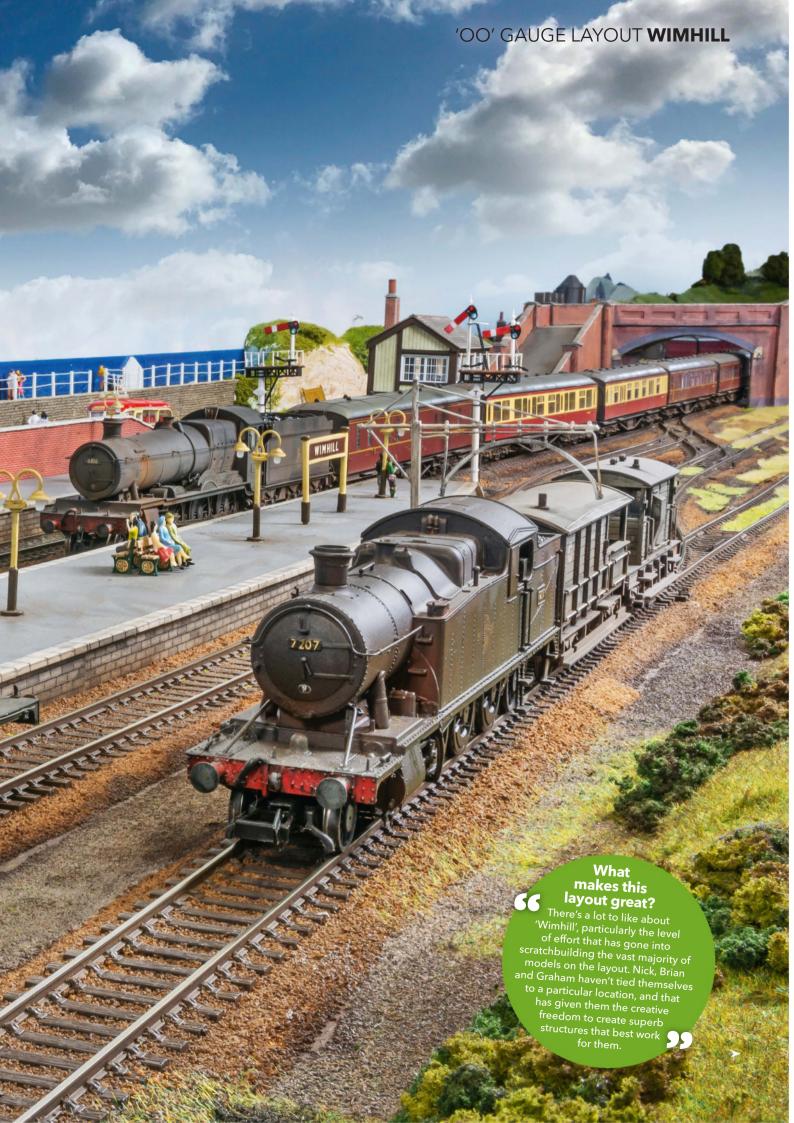
**MODEL RAIL** 



Rather than plan and build everything in one go, Nick Mould built 'Wimhill' in stages, finishing one feature before he moved onto the next.

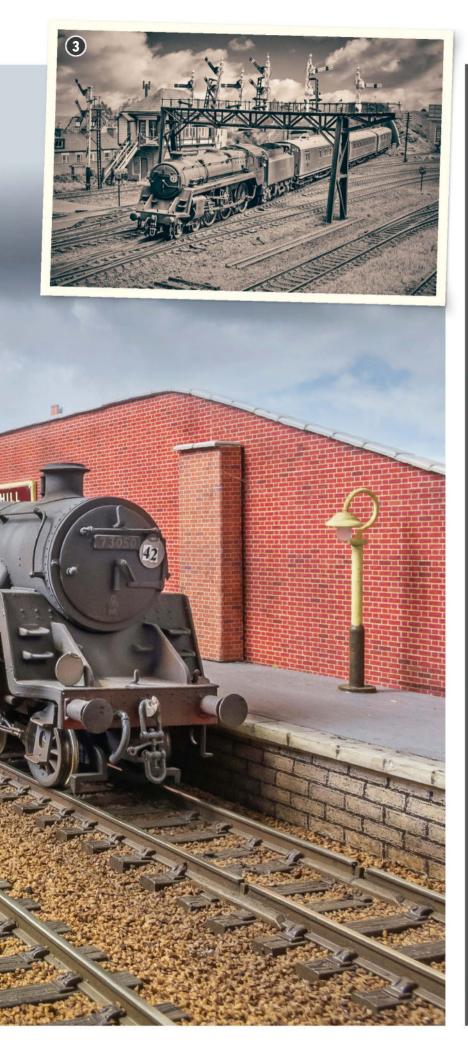
Words: Chris Gadsby Photography: Chris Nevard







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# things we like The switches hidden behind the grounded van body. Everybody loves an open-top bus tour! The backscene teases glimpses of the seaside.

#### **'OO' GAUGE LAYOUT WIMHILL**



12-road fiddleyard underneath which, of course, doesn't need any scenery, so we were left with around 80mm at the back of the layout for fixed scenery before the necessary lifting part, and went with a more modest four platforms (three passenger and one goods) in comparison to 'Colebourne Junction's' six."

#### **UPS AND DOWNS**

As we all know, trains don't really do gradients. With only a limited space in which to raise the tracks above the fiddleyard, there wasn't enough space to get a hand in there in case anything went wrong. The solution was to have the scenic section on liftable frames that would hinge out of the way and allow access to the fiddleyard. The positive? You can still have access to the fiddleyard. The negative? You have to have a join line across the scenery.

"We tried to minimise this initially by making one long board that would lift, but with the layout being 20ft long it was too heavy and we decided to cut it into three, more manageable boards. The front fascia of the layout also drops down to give access to the first few roads of the fiddleyard, but we found that it was so dark under there that we were shining torches just to try and see. The solution to this was to fix LED tape to the underside of the board and hooked it up to a microswitch so that as soon as the board was moved the lights would come on. I owe a lot to Brian for doing all the wiring as that is far beyond my level of expertise!"

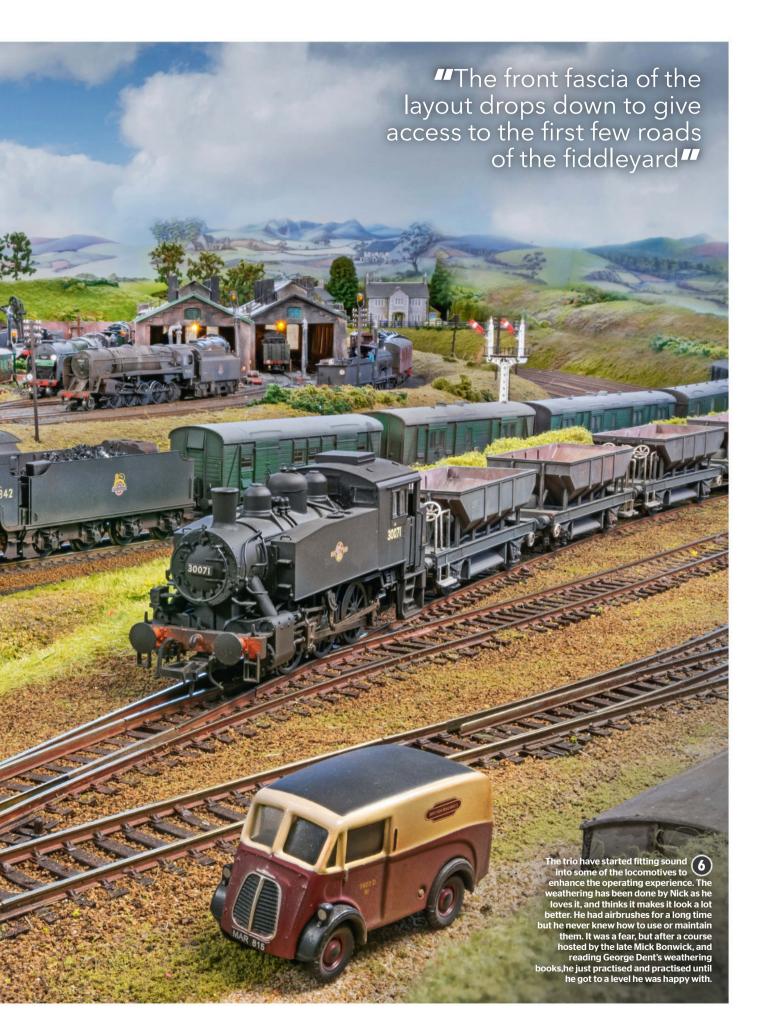
The three liftable sections are fixed with piano hinges, cleverly hidden underneath the static grass and scatter material that can flex when the board is lifted. It still left Nick, Brian and Graham with the problem of how to



All of the electronics underneath the liftable baseboards are mounted within the 2x1 frame so that the components can be worked on without having to clamber underneath.



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disguise a break in the scenery though, and they came up with everybody's favourite thing about model railways, the cameo scene.

"They're a great way of hiding problems and providing interesting things for people to look at. There are two at 'Wimhill' we particularly like, one is the four workmen who are fixing the fence by the lineside as the wires have been cut, by us, to allow that section to lift. My other favourite is the station guard waving a green flag towards the end of one of the platforms. If you stop with the end of the tender level with him, you are right on top of an uncoupler with enough space for the locomotive to run round."

#### SUPERB SCRATCHBUILDS

Scratchbuilt buildings are prominent at 'Wimhill', most xnoticeably the station and the canopy. A slow and time-consuming job, Nick had built the canopy at 'Colebourne Station' and was intending on following a similar procedure at 'Wimhill' until he had a discussion in his local model shop.

"I've found the expertise of model shop owners to be invaluable throughout my modelling life and we should be protecting them at all costs! My local, Model Railway Solutions, told me that they could get the supports laser-cut for me to save me from crafting them by



#### **'OO' GAUGE LAYOUT WIMHILL**

hand, and then I could build them onto the metal supports. It was a far easier job and blends nicely with the station building, which isn't based on anywhere, I just built it with the space - and what would look good - in mind. Next to the station is a scratchbuilt café. I added a small kiosk to the end of it, thinking that it would add a bit of interest and act as a newspaper seller for example, until it was suggested to me that because it's by the seaside it really ought to be a fish and chip stand. The idea was great, but the addition of a deep fat fryer and a couple of women in white coats staring at it... I'm not so convinced about it at the moment!"

It's difficult for Nick to choose his favourite part of 'Wimhill', but there is one section that hits a little bit closer to home than everything else.











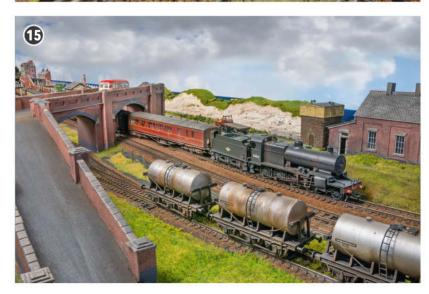
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#### 'OO' GAUGE LAYOUT WIMHILL









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"As you approach 'Wimhill', you travel past 'Hickmans and Mould' dairy, an art deco building which is still there today in Wolverhampton. I built it from a photograph taken in 1932 and the dairy used to belong to my great-grandfather, so the model is a bit of a tribute to my family."

Nick's method of completing one side of the layout before even making a start on 'Wimhill' is a fantastic one. Rather than getting bogged down doing all of the track, all of the ballasting and then all of the scenery, he was able to create a fully operational layout that could be enjoyed with his friends.

Perhaps that's the way to tackle a large layout,

Perhaps that's the way to tackle a large layout, continuing to add new elements once the previous sections have been completed? We might try that next time.





## Masterclass

Looking at railways in detail

# Making tracks

Based on a standard industrial design, the Western Region's small fleet of Permanent Way Machines (PWMs) were a rare 'cop' for many enthusiasts. Ben Jones discovers more about these elusive little diesels.

Generally

the 'PWMs' led

a low-profile

existence, carrying

out their essential

engineering duties

ucked away at the back of your Ian Allan Abc, the Western Region's fleet of five Ruston & Hornsby Permanent Way Machines (PWMs) were a rare anomaly

in the British Railways locomotive fleet. PWM650-654 were never allocated to the revenue-earning fleet, instead they were acquired to work in civil engineering possessions, moving track panels and bridge girders or shunting at

engineers' depots. largely out of the Although they were allocated to only a small public eye number of PW depots across the Western Region and allocations were relatively stable, they were often difficult to spot from passing trains, making them a rare catch for many spotters, especially those of us visiting from further afield. Spotting a 'PWM' and underlining it in your book could be a significant 'cop'.

For many, they became even more 'rateable'

when they were painted yellow in the 1980s, marking them out from the common herd of scruffy blue shunters. It also made them easier to spot from a distance when you were passing Reading or Taunton. In the days of BR blue Class 03s and 08s, the

> Western Region's small fleet of exotic departmental shunters was an interesting break from the norm elsewhere on the network.

> > Famously, Reading Signal Depot was home to ex-Scottish Region Class 06 97804 and R&H '88DS' 4w diesel No. 20 (later 97020), but the 'PWMs' were unusual - a

conventional industrial design purchased as on-track plant, rather than a general user locomotive.

#### **PIONEERS**

But first a little background. Ruston & Hornsby was founded in September 1918 as an amalgamation of two long-established Lincolnshire engineering companies -

Radyr Yard, on the outskirts of Cardiff, was home to two 'PWMs' over the years, PWM651/97651 and PWM 653/97653. The latter is seen in March 1987, looking rather

faded in the early spring sunshine. Note the shunter's pole resting on the buffer shanks, despite the locomotive being equipped with stowage brackets for such implements.

COLOUR RAIL

Ruston, Proctor of Lincoln and Grantham's Richard Hornsby & Sons. Both had played a pioneering role in the development of internal combustion engines for industrial and agricultural use.

Ruston started building oil engines in 1897 and by 1900 it was exporting them all over the world. Fuel injection and cold starting oil engines were introduced by Ruston in the 1900s.

As early as 1891, Hornsby acquired the rights to build the world's first commercially viable oil engine, and soon after abandoned

BR's prototype Ruston & Hornsby '165DE', 97650 (ex-PWM650), carries both pre and post-TOPS numbers atop its faded Rail blue livery, at Taunton Yard in March 1981. Note the smaller wheels and cab windows of this unique locomotive, along with a different roof profile and other minor differences to PWM651-4. COLOUR RAIL



Model Rail 313 June 2023



#### Masterclass

Unfortunately, this put the company in difficulties when the war was over, forcing Hornsby to propose the 1918 merger with Ruston.

For the next decade the focus was on non-railway machinery, but in 1931 R&H made the switch back to locomotive manufacturing, starting with small 2ft gauge shunting tractors.

From 1932, production was moved to Boultham Works in Lincoln, originally built for aircraft manufacturing in the First World War, where it continued until 1962. From 1933 onwards, the R&H product range expanded to include more powerful locomotives and a range of gauges. Eventually, locomotives from 10hp to 410hp were produced, on gauges ranging from 2ft to 5ft 6in. By the time production ceased in 1969, more than 6,500 machines had been built, with customers including the National Coal Board, Ministry of Defence, Ford Motor Company and countless collieries, quarries, power stations, steelworks and factories.

#### **BR COMES CALLING**

Of those 6,500 locomotives, surprisingly few were sold to British Railways. As well as the '88DS' mentioned above, several similar locomotives – Departmental Nos. 56 and 82-87 – were built for the North Eastern Region in 1955-61 and a handful of narrow gauge shunting tractors were delivered to Horwich Works (ZM32), Beeston sleeper depot near Nottingham (ED10) and Chesterton Junction Engineers Yard in Cambridge (85049/051). In 1962, 14 275hp 0-6-0 diesel-electrics (Class 07) were built to



replace the Southern Region's famous 'USA' tanks in Southampton Docks.

The origins of the 'PWMs' can be traced back to July 1950 when Ruston & Hornsby delivered the first of its new '165DE' design. This 150hp diesel-electric locomotive replaced the older '165DS' diesel-mechanical, 124 of which were built to six different gauges. Electrical equipment was supplied by British Thompson-Houston (BTH).

The following year, BR Western Region identified the modern '165DE' as an ideal machine for handling track laying equipment trains during engineering possessions. The first machine, PWM650, was ordered in November 1951, completed in December 1952 and delivered to Swindon Works by road on January 5, 1953. It was

officially taken into BR stock four days later.

Fundamentally it was a standard industrial '165DE' but with modifications to meet BR requirements, including a 'deadman's brake pedal', radiator shutters, WR lamp brackets, cab heater and the ability to disconnect the traction motor to make towing between depots and work sites easier. As with its industrial sisters, no

The early 1970s saw PWM651 and PWM653 gain a much

lighter shade of green, along with a white roof and embellishments. The new 'double arrow' logos and cab side numbers are tiny. COLOUR RAIL

BR's corporate era Rail blue found its way onto the entire 'PWM' fleet by the late 1970s. PWM654 has yet to gain its TOPS number and the attractive Ruston & Hornsby cab side logos have been crudely painted over. '654' is seen marshalled within an engineers' train, heading towards a work site, sandwiched between a crane and rail-carrying wagon laden with new 60ft lengths of concrete sleeper track panels. The 'PWM' will later busy itself shunting the vehicles during track replacement operations. COLOUR RAIL

PWM654 was stationed at Newland track pre-assembly depot, in Worcestershire, for many years. Here, it is captured shunting 'Grampus' wagons and sports recently applied 'wasp' stripes on each end. Initially, they were applied to the front of PWM654's bonnet only, but were later carried around the sides too, as seen here. Note the oil can on the running plate. COLOUR RAIL

continuous train brake was fitted, although the equipment is thought to have been added during a 1965 works visit.

After three to four months of working around Swindon Works, PWM650 was noted working from Ebbw Junction shed in Newport, South Wales. Usually based with the engineering department at Swindon, it could be seen further afield on weekend track re-laying projects and was later based at Newland Yard, near Malvern.

In the late 1950s, BR began to replace traditional 60ft lengths of rail with continuous welded rail and several new pre-assembly depots (PADs) were established around the Western Region. The success of PWM650 led the British Transport Commission (BTC) to order four more '165DEs' from Ruston & Hornsby in July 1958.

#### THE 'STANDARD' BR QUARTET

PWM651-654 were delivered between May and October 1959 and featured a number of improvements. Larger diameter (3ft 4in) wheels were specified, along with train vacuum brakes, improved coupling rods, a mechanical lubricator, two-tone hooter and a modified cab with larger windows and windscreen wipers. At 30 tons, they were also two tons heavier than PWM650. Maximum speed when travelling independently to and from sites was increased from 20mph to 35mph.

Externally, PWM651-654 looked slightly more modern than their predecessor thanks to a neater cab design that lacked the traditional overhanging, curved roof. Larger windows also gave better visibility for the driver during shunting manoeuvres and the radiator shutters were recessed, rather than standing proud of the bonnet end.

The quintet was allocated to PADs at Newland, Theale in Berkshire, Radyr in Cardiff and Taunton Fairwater, plus the main Hookagate welded rail depot in Shrewsbury.





PWM651 was delivered in July 1959 and visited Newland Yard and Hereford before reaching its long-term home at Radyr PAD later that month. Shunting duties were punctuated by visits to nearby Cardiff Canton depot for servicing and Swindon Works for major overhauls. In June 1984 it was transferred to Gloucester, although it did little work there. As 97651, it returned to Radyr in 1991.

Despatched from Lincoln on May 8 1959, PWM652 spent three months at Swindon Works before moving to Taunton's Fairwater Yard to replace 1926-built Simplex petrol tractor No. 24. Leading an uneventful life, '652' spent its entire working life in Taunton, with occasional weekend visits to the Bristol area for tracklaying duties. After the closure of Fairwater PAD in summer 1986, 97652 was stored at Exeter Riverside Yard and scrapped at Laira depot in Plymouth in October 1990.

PWM653 was the next to be delivered, leaving Lincoln on September 11 1959. After inspection at Swindon it was sent to Theale PAD, where it worked until the facility closed in 1973. Having been serviced at Reading up to that point, it was officially reallocated and was in use on engineering duties in the Thames Valley, including Southall, Oxford, Didcot and Slough. In 1982 and again in the mid to late 1980s it also spent time at Radyr PAD in place of 97651. Officially withdrawn in April 1991, it was used as a spares donor for 97654.

The final 'PWM' to be delivered left Ruston's works on October 2 1959, arriving at Swindon Works a few days later. PWM654 was allocated to the welded rail depot at In September 1981, Taunton Yard's 97652 has gained a pair of overhead warning legends on the front of its cab, along with C.C.E. Plant numerals on the sides. PAUL BARTLETT

Hookagate Yard in Shrewsbury for the first five years of its life. Proving a little too lightweight for the heavy trains of continuously welded rail, it joined PWM650 at Newland in November 1964 and stayed until the facility closed in 1982. In later years it was based at Reading.

Generally the 'PWMs' led a low-profile existence, carrying out their essential engineering duties largely out of the public eye. As well as their allocated bases, the locomotives were also seen at Swindon, Worcester, Cardiff Canton, Plymouth Laira and Gloucester.

By 1992, only Radyr's 97651 and 97654 at Reading were still in regular use with 97653 being retained as spares donor (scrapped in 2011), 97652 being scrapped in October 1990 and 97650 stored in 1987 and later acquired by Lincoln City Council as a historic monument to the city's locomotive building industry.

Remarkably, 97654 was sold to First Engineering in 1996 and moved to Slateford Yard in Edinburgh with a view to deployment on Forth Bridge engineering trains. Sadly, this never took place and the

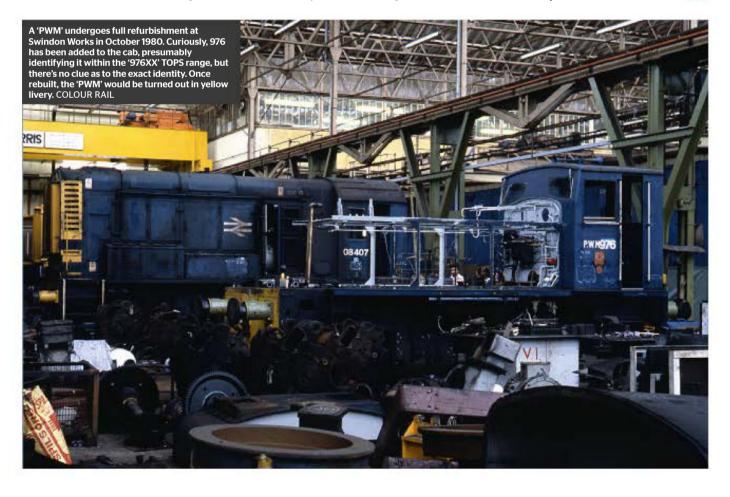


locomotive later joined 97650 and 97651 in preservation. Today, 97650/654 are cared for by the Heritage Shunters Trust at Rowsley in Derbyshire and 97651 is operational at the Swindon & Cricklade Railway.

#### **LIVERIES**

All five locomotives were delivered in BR dark green with red bufferbeams and coupling rods. PWM650 initially had the BR lion and wheel emblem, but PWM651-654 had the post-1956 BR crest from new. All gained black/yellow 'wasp' warning panels during the first half of the 1960s to help improve visibility for lineside staff. Of those, most had the stripes wrapped around the sides of the radiator in standard shunter style, but PWM654 initially had black/yellow stripes on the flat front of the radiator only.

In the early 1970s PWM651/653 carried



#### Masterclass

a lighter drab olive green with a white cab roof, wheel tyres and step edges, black roof-mounted horns, red coupling rods and a wealth of smaller embellishments – something that would become a feature of the PWM fleet until withdrawal. Photographs show PWM651 with a very small BR arrow on one side in drab olive livery.

Cab interiors were green below control desk level and cream above, later changing to Rail grey in line with the BR blue corporate image.

By the late-1970s all were BR blue, but still with individual variations such as white tyres and different sizes of BR arrow. Bonnet, cab and roof were BR blue as standard, with yellow bufferbeams, coupling rods and black underframe/running plate. The air tanks below the running plate were often picked out in white, while elements such as the cabside R&H worksplates and Ruston builders' plates above the radiator grille could be red or black (if they were still fitted).

By 1975, PWM651 was in BR blue but still with a distinctly individual look featuring a white cab roof, cab steps, tyres, lamp brackets and handrails and red bufferbeams and coupling rods. The unusually small BR arrow was also retained.

In 1981/82, 97651-654 underwent their most striking change of image, swapping BR blue for a fresh coat of BR yellow with red double arrow logos. Only 97650 retained



BR blue until withdrawal. in early 1981, 97652 emerged from Swindon Works in yellow, followed by 97653 in August of that year, 97651 in November 1981 and 97654 in April 1982.

While in yellow, the four PWMs also gained their official Civil Engineers department '833XX' numbers on the cabsides, in this case 83651-654. As they reached the end of their lives, the surviving PWMs were adopted as depot 'pets' and received further attention from the painters, including Reading's Bulldog emblem on 97654.

Under the TOPS computer system, PWM650-654 became Class 97/6 and were slowly renumbered 97650-654 between 1979 and 1982.

Unusually, 97650 carried both its TOPS and original numbers from 1979 until withdrawal, with small, stencilled 'PWM650'

Exeter Riverside Yard plays host to a grubby 97652 in September 1986. Chalk markings are discernible on the cab footsteps, reminding staff that the locomotive should not exceed 35mph, presumably when being hauled as part of an engineers' train. COLOUR RAIL The chassis of 97651 looks pretty crusty with grime, and its yellow paint has faded, in this 1990 view.
PAUL BARTLETT

on the cabsides and a larger 97650 along the upper part of the bonnet sides.

In total, Ruston & Hornsby built more than 150 '165DEs' for industrial users in the UK and overseas between 1950 and 1963. Most were the 0-4-0DE variant, but a small number of 0-6-0DEs were built for industrial users, including the National Coal Board. Most were standard gauge but a handful of export models were built to 3ft or 5ft 3in gauge. Many 0-4-0DEs survive in preservation, where they still provide convenient, reliable and economical traction for engineering trains.

#### **RECOMMENDED READING**

- ◆ *The PWMs*, A.J. Booth, Industrial Railway Society, 1992
- Ruston & Hornsby Diesel Locomotive Album, Andrew Neale, Plateway Press, 2014
- British Rail Departmental Locomotives 1948-1968, Paul Smith & Shirley Smith, Ian Allan, 2014



#### GRAB YOURSELF A 'PWM' TODAY!

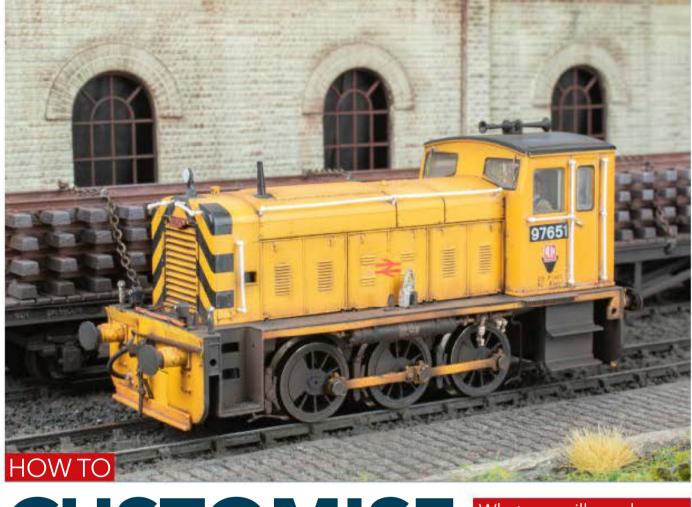
Our exclusive range of 'OO' gauge Ruston & Hornsby 'PWMs' is on sale now, with a choice of eight different number options to choose from and featuring the whole array of liveries worn during BR service.

Based on the 'standard' BR quartet of PWM651-654 (later 97651-4), the models have been manufactured by Heljan and produced in association with Kernow Model Rail Centre. Featuring an impressive specification, interior lighting is included (controllable with a magnetic 'wand') and a powerful coreless motor is equipped with a brass



flywheel and gears to provide smooth, slow-speed operation. A Next18 DCC interface is provided and there's even room for a speaker within the bonnet. Turn to page 101 to see the full list of models and for details of how to place your order.

Web: www.modelrailoffers.co.uk



## CUSTOMISE A 'PWM'

**George Dent** aims to recreate the faded - and slightly jaded - appearance of a 1980s-era Ruston & Hornsby Class 97/6.

s Ben states on the preceding pages, the Class 97/6 'PWMs' were no easy 'cop' and they proved elusive during my trainspotting days. However, they've intrigued me for a long time and, when previous *MR* editor Richard Foster asked if I thought they'd make a viable model, I agreed wholeheartedly.

Our exclusive models have taken a while to finally arrive, thanks mostly to the global pandemic and its lingering after effects, but it's exciting to see them in the flesh. And even more thrilling to have one to customise and treat to a typically weathered finish.

If you fancy getting inside your model to fit a decoder or populate the cab with a crew - or add a few extra detail embellishments - then read on. My aim was to take away the pristine



appearance of the vibrant yellow livery of this 1980s-era version, suggesting slight fading to the paintwork and a modest amount of grime accumulation, especially on the chassis.

The layers of weathering have certainly brought out the impressive level of detail on the bodyshell, mimicking the appearance of a hardworking piece of machinery. The 'PWMs' definitely come under the 'unsung hero' banner, diligently performing an important job over several decades. It's satisfying, therefore, to see them finally get their moment in the limelight with these exclusive new models.

#### What you will need

#### **MATERIALS**

- Abteilung white, buff and grey oil paints and thinners, MIG enamel weathering washes, Tamiya cotton swabs
   Availability: Scale Model Shop Web: www.scalemodelshop.co.uk
- RailMatch enamel paints: 402 Frame Dirt, 405 Dark Rust, 412 Weathered Black, enamel thinners
   Availability: Fox Transfers
   Web: www.fox-transfers.co.uk
- LifeColor acrylic paints: LC02 Matt Black, LC37 Matt Burnt Umber, PG101 Dark Earth dry pigment Availability: The Airbrush Company Web: www.airbrushes.com

#### TOOLS

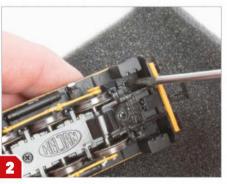
- Miniature screwdriver set
- Knife and spare blades
- Cutting mat
- Tweezers
- Paintbrushes
- Cotton swabs
- Cocktail sticks
- Airbrush and equipment (optional)

**DTOGRAPHY: GEORGE DENT** 

#### Masterclass



The easiest way to get inside the 'PWM' model is to gently unclip the two plastic boxes either side of the chassis block at the nose end. These are a push-fit with two prongs sitting inside holes in the metal frame.



With the plastic boxes removed, two small crosshead screws will be revealed. These secure the bonnet to the frames. Simply remove the screws and put them in a safe place, such as a lidded container.



The two screws will release the nose end of the bonnet, but the cab end is secured with small plastic clips. Gently insert a plastic shim between the cab and running plate and joggle the clip free. Do the same on the other side.



With retaining clips freed, the cab and bonnet can be carefully lifted away. The Next18 DCC interface is atop the circuit board, with the mounting point for a small 'sugar cube' speaker, with a max size of 4.5mm by 8mm by 15mm.



Now's a good time to install figures inside the cab. Although a pair of seats are provided, I added a standing figure, although he had to be trimmed at the ankles to ensure he stood at the correct height in relation to the cab windows.



I wanted to recreate a slightly faded look to my yellow 'PWM', so I began by dabbing a mix of white, buff and grey oil paints over the bodywork, working on a small area at a time (such as one side of the bonnet).



The oils can be wiped over the surface with dry cotton swabs. The paint dries slowly, so there's no hurry. The surface immediately takes on a washed-out look. Thinners on a swab or brush allows for further manipulation (or removal).



The same process was followed over the rest of the body. I barely used any thinners, and it must be kept away from clear glazing. The 'filtering' effect can be subtle; for greater fading, repeat if necessary, once the initial layer is dry.



The oils need at least 24 hours to dry before continuing. A neutral shade of enamel weathering wash followed. After shaking the jar thoroughly, it was brushed into the surface detail, again working on one area at a time.



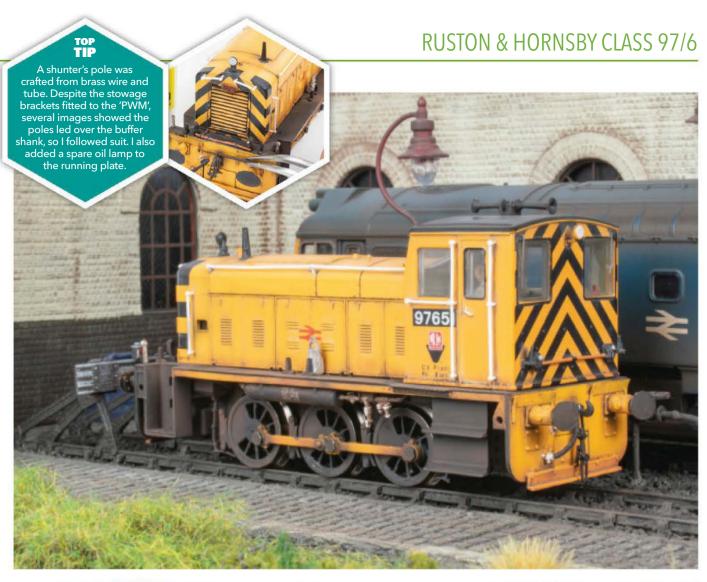
Dry cotton swabs removed most of the wash, working in vertical strokes, leaving pigment within panel seams and around raised details. A brush and/or swab dampened in thinners allows further manipulation.



If NEM couplers aren't required, fit the blanking plates (priming and painting beforehand). After the weathering wash treatment, the small details can be installed: coupling pole brackets are supplied, as are dummy screw couplings.



Once the neutral wash had dried overnight, I felt some of the deeper seams needed a darker shade, so MIG Dark enamel wash was applied into the recesses with a fine brush. Fluid finds its own way along the seams by capillary action.





While the dark wash on the body dried, I mixed a textured coating from matt black acrylic paint and Dark Earth dry pigment, stippling over the wheel faces, chassis frames, bufferheads and the top of the running plate using a flat brush.



The textured coating looks a little rough when dry, but the effect was refined with a fine misting of thinned enamels. A mix of Dark Rust, Frame Dirt and Weathered Black was sprayed at low pressure, building a few very light coats.



A blend of Weathered Black and Frame Dirt was also misted over the body, only when the preceding wash was dry. A very fine layer of grime was misted over the bonnet top and cab roof, and along the lower edges of the body.



The airbrushed weathering was left overnight to cure before the wheels were given a thorough clean with cotton swabs dipped in isopropyl alcohol. A 9V battery held against the wheels allows the motor to run (only do this BEFORE a DCC chip has been installed!).



To reassemble, the body must be clipped back into the frames. The floor mounted interior fitting (circled) needs to pass behind the controls (also circled) as the cab is refitted, which demands a little care. Bending the controls slightly will provide clearance.



Ensure that the locating clips are securely pushed home and add the two small crosshead screws to pull everything together. The two plastic boxes (weathered separately from the chassis) can then be re-clipped into place.

#### SALES LINE 01432 352809

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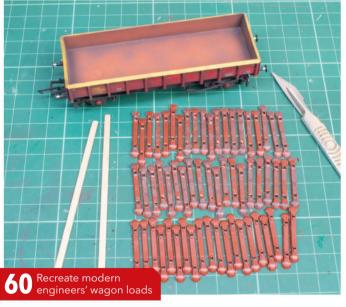
	HORNBY	R3707	R&H 48Ds Longmorn	R615	RH Diamond Crossing	BACHMANN Steam Locomotives	E84008 Class 58 EWS weathered
D00007	INFRAGI. I II I	R3739	£71.99 Class 87 BR Blue £153.89	DC17	£13.95	31-002 Robinson BR Early Crest	£157.20
R30087	LNER A3 Lemberg black £227.69	R3742F		R617	Uncoupling Ramp£3.95	£94.99	31-265A Class 419 MLV BR green£135.95
B3U3UU	Railroad 0-4-0ST BR	1137 421	£98.99	R618	Double Isolating Rail £9.90	31-003A Robinson 04 LNER	31-267A Class 419 MLV Blue/Grey
1130200	£43.19	R3741	Class 92 GBRF£76.50	R620	Railer Uncoupler£6.95	£110.45	17-207A Class 419 MLV Blue/Grey £135.95
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HOOLET	Return 4F£125.99	110001	£161.99	R643	Half Curve 2nd Rad£2.25	£178.45	32-114B BR Class 08 black
R3242A	K1 BR Early£116.95	R3885	CI 60 DB Cargo 60062	R8072	LH Point£11.85	31-127 CL3000 BR ROD .£118.45	£127.45
	K1 BR Late£116.95		£161.99	R8073	RH Point£11.85	31-128 BR ROD Weathered	32-394 Class 37 Colas£144.45
R3631	BR H Class£116.95	R3898	TTS BR Class 08 sound	R8074	LH Curved Point£18.85	£102.45	
R3634	SR Lord Nelson class		£180.90	R8075	RH Curved Point£18.85	31-136 DC D11/2 BR£115.90	32-390 DB Class 37 EW&S
	£152.95	R3899	BR Class 08 yellow	R8076	Y Point£13.90	31-171 LYR Class 5 tank .£123.20	£144.45
R3681	LMS Duchess£184.00		£166.95	R8077	LH Express Point£18.85	31-982 BR 3mt Black wthd	32-415 BR Class 24 green
R3703	Peckett W4 Bear .£114.75	R3900	GWR Cornwall Class 08	R8078	RH Express Point £18.85	£152.95	£152.45
R3727	LMS PUG£63.00		£159.30	R8261	4th Radius Curve£2.80	31-318A LNER J11£127.45	32-416 Cl24 BR Blue£152.95
R3728	BR PUG£63.00	R3901	Cl 60 Colas£161.99		HORNBY	31-433 BR Ivatt 2mt tank.£140.20	32-444 BR Class 24 RTC.£152.95
R3781	K&ESR Terrier£80.75	R30009	Sentinel London Carriers		Track Accessories	31-434 Class 1f BR Early£81.55	32-613SF Class 90 Intercity Sound
R3830	Class A2/2 Cock o' the	D00040	£98.09	R076	Footbridge£16.20	31-442 LMS Ivatt 2mt tank	£280.45
	North£170.99		Sentinel Hitachi£98.09	R169	Junction Home Signal	£140.20	32-620SF Class 90 Freightliner
R3833	LNER A2/3 Chamossaire		GBRf Class 60£206.09		£16.85	31-462A C Class BR Early£106.20	Sound£280.45
	£171.00	R30040	TTS Cl. 47 BR	R170	Junction Distant Signal	31-465 C Classs BR£93.46	32-682 BR Class 45 green
R3956	Rocket Royal Mail pack	D20040	(Royal Wedding)£108.90		£16.85	31-480 Class G2A LMS£101.95	£135.45
	£217.80	H3UU42	TTS CI. 47 R.O.G sound£108.90	R171	Single Home Signal£12.90	31-481 Class G2A BR Early	32-755A Cl57 Arriva Wales .£157.20
R3979	LNER Hush Hush 1935	R30070	RailRoad Plus Hanson	R172	Single Distant Signal	£114.70	32-763A CI57 DRS£152.95
	£229.00	1130070	Class 59£81.89		£12.90	31-614 V3 BR Late£110.45	
R3980	BR W1 late£229.00	R30073	Cl. 56 BR Blue£196.19	R189	Single Brick Bridge £12.80	31-635B GWR 64xx£118.95	32-900C Cl108 BR Green£203.95
R3989	LNER A1 Knight of Thistle		Sentinel 0-6-0 P o B	R406	Colour Light Signal£9.90	31-639 BR 64xx lined green	32-908 Cl108 Blue/Grey£203.95
	£227.69	1100000	£98.09	R574	Trackside Accessories	£118.95	35-410 BR Class 47 green
	-	R30084	Sentinel 0-6-0 M.S.C.		£14.90	31-691 BR Early Stanier Mogul	£203.95
	Train Packs/Sets		£98.09	R626	Point Underlay£6.90	£135.95	35-411 BR Class 47 blue.£203.95
R3299	1945 Going Home	R30085	Sentinel 0-6-0 NCB£98.09	R636	Double Level Crossing	31-716A BR B1 weathered .£152.95	35-413 Class 47 Intercity Swallow
110200	£259.45	R30089	Cl67 Transport for Wales		£28.80	31-717 LNER B1 green£144.45	£203.95
R3399	EWS Freight train pack		£174.59	R638	Track Underlay£15.85	31-932 DC BR Compound	35-413SF Class 47 Intercity Sound
	£184.99	R30099	East Coast Trains HST	R645	Single Level Crossing	£127.75	£288.95
R3402	Queen of Scots pack		£326.69		£18.85	31-932 BR Compound Early£169.95	35-418 BR Class 47 Construction
	£263.99	R30177	Railroad HST pack	R658	Inclined Pier Set£9.90	31-933A BR Compound Late	£203.95
R3873 5	i-car APT£430.20		£130.95	R659	High Level Pier Set£8.10	£169.95	35-419 BR Class 47 Rft
Die	HORNBY esel Electric Locomotives	R30178	Cl. 67 DB Royal Diamond		HORNBY	31-934 LMS Compound£182.70	Distribution£203.95
R3373	Class 71 BR Green		(RR plus)£87.30		Trackside	31-976B BR 3mt green£140.20	35-526 Cl 121 Blue/Grey.£131.70
	w/panel£134.95	R30184	Cl. 67 Colas (RR plus)	R460	Straight Platform£4.00	32-131A GWR 4575£140.20	35-527 Cl 121 Network
R3374	Class 71 BR Blue £134.95		£87.30	R462	Large Curve Platform		Southeast£131.70
R3376	Class 71 BR Green		HORNBY TRACK	D.100	£4.00	32-132 BR 45xx green£140.20	35-351 Class 20 BR green
	£134.95	R083	Buffer Stop£2.50	R463	Small Curve Platform	32-205A BR 8750 Pannier.£101.35	£152.95
R3705	R&H 48Ds Dewars.£71.99	R207	Track Fixing Pins£3.25	D404	£4.00	35-050 LNWR Coal Tank£101.95	35-357 BR Class 20 Rft£152.95
R3706	R&H 48Ds Army£71.99	R600	Straight£2.15	R464	Platform Ramp£3.00	35-051 LMS Coal Tank£101.95	
	Mail Order Service	R601	Double Straight£1.85	R510	Platform Shelter£14.85	35-200 LNER green V2£195.45	DAPOL/OXFORD/HELJAN/DJM
1	orices valid to 28.02.23.	R604	Curve 2nd radius£2.55	R8003	Water Tower£14.85	35-201 BR black V2£195.45	GV2013 Janus British Steel £92.45
	t state these prices when ordering	R605	Double Curve 1st Rad.	R8007	Booking Hall£26.99	E85008 SR Class 02£127.45	
	E & PACKING RATES PER ORDER:	11000	£3.25		HORNBY	E85009 BR Class 02£127.45	OR76DG005 Dean Goods
	lard Postage and Packing Rate £3.95 ed Postage and Packing Rate £7.10	R606	Curve 2nd Rad£2.15		Control Equipment	BACHMANN	W.snowplough£94.50
UK Courier Transport and Packing Rate £9.00		R607	Double Curve 2nd Rad.	R044	Point Switch£10.75	Diesel/Electric Locomotives	OR76AR005 Adams East Kent£84.45
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PLEA	SE QUOTE OUR SPECIAL ES WHEN YOU VISIT US	R610	Short Straight£1.65	R8014	Point Motor£9.45	LOHOU/ Glass of Wallillet 137.20	H1304 1361 BR Late£122.45
	CREDIT/DEBIT CARDS WELCOME.	R614	LH Diamond Crossing	R8015	Point Motor Housing £6.60	LARGE RANGE OF QUALITY SECO	OND HAND MODEL RAIL IN STOCK
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## Workbench

14 pages of projects, advice and top tips that show you how





#### Meet the Model Rail Expert modellers



Peter Marriott
Scenic guru!
Knows what's
available and how
to use it.



Chris Leigh
Quite simply, what
Chris doesn't
know isn't worth
knowing!



George Dent
Learn from one of
the country's
best modellers.

Project difficulty ratings

Easy: one screwdriver



# WAYS TO MAKE BETTER ROADS

**Peter Marriott** explores kits and techniques that will help make your roads more realistic.

ost model railways feature at least one section of road, whether it be a single-lane track or a dual carriageway. There are various methods to make road surfaces; the simplest method is to use

grey acrylic paint, but on its own it does not look especially realistic.

Step outside your front door and you will see that roads are seldom flat or consistent in appearance. Even motorways are cambered and covered in

a litany of repair patches while, at the other end of the spectrum, the humble country lane is anything but smooth.

As well as careful observation of prototypes, there is a wide range of products that will help you on the way...



HOTOGRAPHY: PETER MARRIOTI



#### Shop around

The Noch Road Construction Set contains very fine asphalt granules in an applicator, arefill pack of the asphalt granules and grey acrylic road colour. The contents of this set can create a 3 metre long, 8cm wide stretch.

Use the kit as follows: Brush PVA glue onto the road area, then use the sprinkler to spread an even layer of asphalt granules and leave to dry. Any excess granules can be brushed away and reused later and then paint the road using the grey paint, which also seals the granules.



Scalescenes' downloadable photo-based textures include asphalt, paving, concrete, grimy concrete, cobblestone setts, concrete paths and a car park. The printed sheets can be fixed to a flat baseboard or cardboard using PVA adhesive or a glue stick (ensure that there are no air bubbles). For pavements, the paper can be used on mounting card, which provides the necessary height proud of the road surface. Seal with matt varnish after application.



#### **Get it taped**

Woodland Scenics' Road Kit enables roads, pavements, kerbs, car parks and any asphalt or concrete surface to be made. The Woodland Scenics system uses Paving Tape to mark the edge of the road, Smooth-It paste to make the road surface (this has the advantage that it covers any minor blemishes in the underlying baseboard) and Asphalt or Concrete Top Coat paint to finish the road surface.



#### Pave it

Woodland Scenics' Pave-It, allows you to cut lengths of paving paper to run along both sides for the length of the road.

This can be easily done with scissors or a craft knife. Remove the backing paper from the paving tape and stick the two pieces on the marked lines on the landscape at each side of the road. At each end of the road stick further sections of tape crossways to hold in the mixed paste ready for the next stage.

Depending upon the length and width of your road, mix three

your road, mix three teaspoons of Smooth-It powder to two teaspoons of water in a bowl and leave it to congeal for two minutes. Then mix it thoroughly with the supplied wooden stirrer for one minute before pouring.



## Modeller's 'L' plates

Another Woodland Scenics product, the Road System Learning Kit, has enough materials to build a road approximately 1.3m long by 8cm wide. For around £20, it is a good way to experiment with road-making techniques.





www.model-rail.co.uk 51

CHRIS NEVARD

## Workbench EXPERT MODELLERS SHOW YOU HOW

## **Choose the right details**

Road furniture goes a long way to setting the scene of a layout. It helps to define the time period that the layout is intended to represents. Plus, the more paraphernalia generally means the more urban the setting.

This includes post boxes, road signs, advertising hoardings, streetlamps, bicycle racks, traffic lights, Belisha beacons, bus shelters and street signs.

Some of these accessories come ready-painted, others need to be painted.

Some helpfully come with a pin ready for planting on the layout. A small blob of PVA adhesive or contact adhesive will fix them to the layout regardless.

#### **BRUSH UP ON** YOUR ROAD **THEORY**

Refer to the Highway Code to check what signs and road markings are accurate for your chosen era. Older versions can often be found at car boot and jumble sales. There are also various



websites that provide prototypical information.

#### **TOP TIP 10**

OTHER READY-TO-LAY PAVING A selection of road and paving surfaces by (from left to right) Wills, ER Decor, Train Terrain and Superquick.



#### TOP TIP 12

#### ROADSIDE FURNISHINGS

EFE also produce a selection of road furniture such as and bus shelters, while Bachmann offer some neat central-shell bollards (albeit solid and therefore not easily lit as per the prototype).







#### **TOP TIP 14** DOWN THE GUTTER

Add drain covers and manhole covers to super detail roads, which are available from Noch and Sankey Scenics (pictured) as well as others.



#### METCALFE'S PAVING SLABS

Metcalfe Models offers paving slabs for 'N' and 'OO' gauges as pre-cut self-adhesive card sheets. Laying is easy and the more you lay the quicker it becomes. Each 'OO' scale pack contains more than 1,000 full and half size slabs plus edging and corners. Each individual slab simply peels from the backing sheet and can be stuck in place, though I find that it is wise to spread a thin layer of PVA adhesive to the base material below the slabs to ensure they are secure.

#### TOP TIP 11 ON THE BUSES

Bus stops are a prerequisite for most roads close to dwellings or industry. The plastic shelter and resin base are both Bachmann Scencraft ready-to-plonk mouldings. The bus is by Exclusive First Editions (EFE).



#### **TOP TIP 13 SIGNS OF LIFE**

We are also blessed with cottage industry supplied materials, such as these road signs by Miniscene Models.



#### Handy hints

#### **Smooth** operator

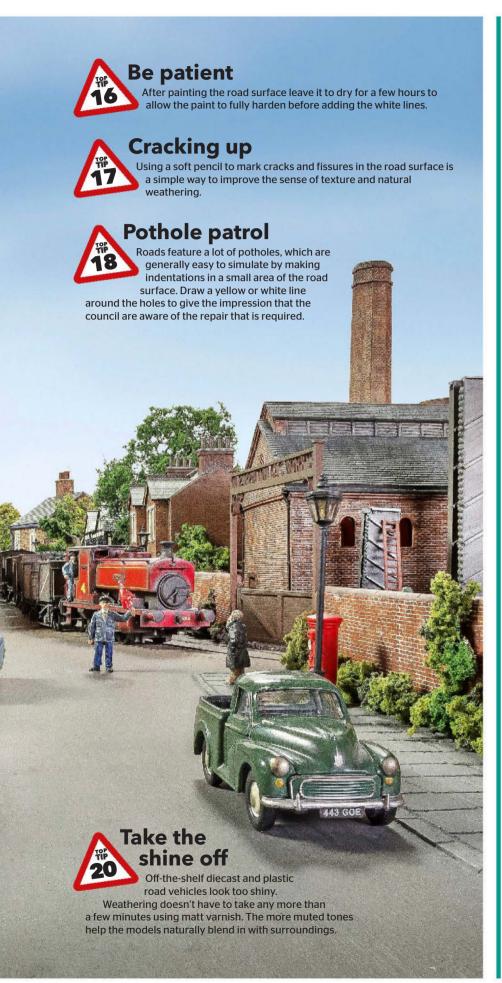
Before painting the road colour, use Woodland Scenics Flex Paste, Deluxe Materials Perfect Putty or DIY filling plaster to cover any minor blemishes in the underlying baseboard. Plywood and other timber products have inherent grain and other minor blemishes. When the paste has dried use fine sandpaper to remove imperfections.



CHRIS NEVARD

next to the road. Roads look strangely

unrealistic without them.



#### **Lighting-up time**

Road vehicles with working head and tail lights add a greater sense of reality, and there are plenty of off-the-shelf products to choose from, such as this Rapido Trains bus and a scooter from Noch. Lighting kits are also available, to fit within die-cast cars, buses and lorries, including Woodland Scenics' Nano LED sets, while Scale Model Scenery also offers a useful lighting kit.





#### **Using rollout roads**

Various companies (including Busch, Faller, Gaugemaster and Noch) produce flexible, ready-to-lay road pieces.
These are rollout strips of singletrack carriageways in both light and dark asphalt colours for both 'N' and 'OO'.

They include car parking spaces, plain asphalt, cobbles and stone pavements.
Some sections feature central 'dotted' lines, plus continuous white lines at the edge.

These flexible surfaces are made from a rubbery foam that is easy to lay and can look good, but they need to be affixed with care and patience in a methodical approach. The first of which is to ensure that the baseboard surface is perfectly flat before laying the road, otherwise any imperfections will be obvious.

Pull the road away from the backing sheet slowly and do not be tempted to do so from a long length in one hit. It is much easier to work with short 'released' sections.

Take care to ensure that the road is being laid straight, or curved as you intend. Smooth each section gently as you go before moving onto the next section.

If you need to use several strips to disguise the join, just lay one length over the next by roughly 2mm. Check which way the light falls on your layout and avoid the hard edge of the folded over piece facing the viewer.

However, you can hide any rough joins by using a strategically positioned vehicle.



## Workbench EXPERT MODELLERS SHOW YOU HOW

## White line fever

Painting white lines on roads is a job that only takes a few minutes (depending on how far your road stretches!), yet it transforms the appearance of a section of grey paint. Again, make sure to use the correct road markings

by checking in the relevant Highway Code of your epoch.

White lines can be added either by using the two methods described below or by using Noch self-adhesive road markings.

Method 1
STEP
Method 1







**Step 1:** Woodland Scenics retail a Flexi Edge which is marked in different scales for the lengths of white lines together with road marking pens in white and yellow plus a Road Line Remover pen. Flexi Edge is 45cm in length with a raised inking edge to prevent smears. It encompasses a ruler with markings featuring suggested lengths for 'N', 'HO', 'OO' and 'O' gauges. It also features information about scaled measurements for the width of parking spaces, pavements, rural roads and dual carriageways.

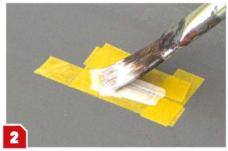
**Step 2:** The Flexi Edge is shaped so that the pen can mark a clean line on the road surface. Hold the flexible curved tool in place with one hand and butt the tip of the marker pen on the road while supporting it on the edge of the tool and drag it along the road surface.

**Step 3:** If you do make a mistake in marking lines on a road surface then Road Stripe Remover from Woodland Scenics provides the answer. It simply 'melts' the line already made after a couple of strokes.

**Step 4:** Any excess fluid can be removed by wiping it gently away on a piece of damp kitchen tissue.



Alternatively, paint into a masking tape template. This works best when the masking tape is pushed firmly onto the surface. If the tape is loose the paint seeps under the tape and spoil the result. I use light-tack tape by Tamiya which has just the right amount of stickiness.



Choose between long and short white lines and then use the masking tape to form the outline of the lines. Experiment with a couple before working on your layout. It takes trial and error to get the width of the white line correct.



Paint a little white acrylic paint on a small paintbrush in the gap left in the masking tape. Don't use too much paint because the lines are generally a little worn and not pure white. Leave to dry for a few minutes then carefully but steadily remove the tape from one corner.



Unmade tracks are common; they lead to farms, barns and railway access roads.

To make the track, paint the baseboard surface a dark colour, like brown or dark grey.

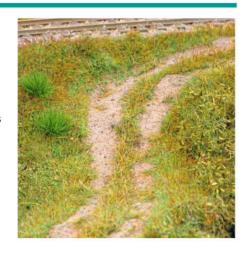
Now decide how rough the track is to be. If it is a dirt track, Woodland Scenics brown Fine Turf on top of PVA will be sufficient to give the correct impression of earth.

An alternative is Treemendus
Earth Powder sprinkled over
PVA or fine sand. Other
scenic materials are
available from Busch, Green
Scene, Heki and Noch.

Use a scale road vehicle to ensure that you get the width of the track correct. Run the vehicle along the designated area to see that the wheel tracks are the correct width apart.

Where the track is to be uneven and rocky, fine ballast chippings can be mixed in with the scatter materials or fine sand.

To represent the tall grass that usually grows alongside and down the centre of such tracks use static grass applied with an electrostatic grass tool or a Gaugemaster or Noch Puffer Bottle. Alternatively, use self-adhesive Grass Tuft Strips, though I usually brush on a little PVA to the underside to be doubly sure that they stay fixed on the layout. Like most of the products mentioned in this article, the strips are sold in several colours.





**Road repairs** 

To represent repaired potholes,
Busch retail a set of over 50
potholes in different shapes and
ese simply need to be cut off the

sizes. These simply need to be cut off the self-adhesive backing sheet and stuck to the road surface.

Figures from the same manufacturer portray a worker cutting the asphalt on a road surface; the tar boiler and its operative; and an asphalt roller with its operative busy



smoothing down the repairs (note the shiny surface representing wet asphalt by gloss varnish). To complete the scene there is a selection of barriers, toolboxes and ramps to load the machinery on to a trailer.



Looking rough
To give the road surface a less regular look, pour a few grains of sand onto the painted surface, then rub them into the surface with the tip of your fingers. Not only does this remove the shine from the road but it enables the surface to be randomly weathered just like the real thing.

The little things...

TOP TIP 28 PEDAL POWER Don't forget to add cyclists to your layout, even if it is not the Tour de France leader!

## ala

#### TOP TIP 29 NUMBER'S UP

Adding authentic numberplates to road vehicles is a quick way to greater realism. Suitable packs are available to suit various eras, in printed paper or waterslide decal format from the likes of Scale Models Scenery, Sankey Scenics and Fox Transfers.



#### TOP TIP 30 GET 'EM MOVING

The Faller Car System greatly adds to the visual interest of a layout, especially where the rail services are not too regular! Buses can even pause at designated stops.

#### **USEFUL SUPPLIERS**

- Bachmann Scenecraft (www.bachmann.co.uk)
- Busch (www.busch-model.com)
- Brawa (www.brawa.de)
- Dart Castings (www.dartcastings.co.uk)
- Deluxe Materials
   (www.deluxematerials.co.uk)
- Detail Matters (www.detailmatters.co.uk)
- Exclusive First Editions (www.bachmann.co.uk)
- Faller (www.faller.de)
- Fox Transfers (www.fox-transfers.co.uk)
- Gaugemaster (www.gaugemasterretail.com)
- Greenscene (www.green-scenes.co.uk)
- Harburn Hobbies (www.harburnhobbies.co.uk)
- Hornby Skaledale (www.hornby.com)
- Langley Models (www.langleymodels.co.uk)
- Model Scene (www.model-scene.com)
- Noch (www.noch.com)
- PD Marsh (www.pdmarshmodels.com)
- Preiser (www.preiserfiguren.de)
- Scalescenes (www.scalescenes.com)
- Scale Model Scenery (www.scalemodelscenery.co.uk)
- Ten Commandments (www.cast-in-stone.co.uk)
- Treemendus Earth Powder (www.treemendusmodels.co.uk)
- Woodland Scenics (www.woodlandscenics.com)



**HOW TO** 

## MODEL COLLETT'S SUPER SALOON

Inspired to add some variety to his main line trains, **Chris Leigh** set about a traditional conversion.

've been working on a 'Masterclass' looking at the varied rolling stock which formed the typical 1960s passenger train in many areas and suggesting that modellers might wish to add variety by breaking up their matching rakes of Mk 1s with something different, as BR often did.

One of my references is a picture of me, taken at Savernake as an Up express approaches behind a 'Western' class diesel-hydraulic. The train is made up of maroon BR Mk 1 coaches, except for the second vehicle, which is a GWR special saloon dating from the 1930s and repainted into chocolate and cream by Swindon works in the mid-1950s.

The special saloons were the Great Western's equivalent of a Pullman car, with



seating bays, tables, and plush furnishing. Introduced in the Collett era for ocean liner express services to Plymouth, by the 1960s they were mainly used for Newbury race trains and for senior regional officers travelling between major centres. Built to the extreme width of the GWR's generous loading gauge, they were restricted to certain GWR main lines, so modellers who don't model such routes might wish to stop reading here. On the other hand, if you want to try your hand at a simple brass overlay conversion, read on.

For this conversion I used a set of brass

Super Saloon side overlays from the Comet Models range, available via Wizard Models. Incidentally, there is also an alternative pair of sides for a version with kitchen. The choice is yours - the method will be exactly the same. Choose the sides only, not the complete kit.

The donor coach is an old Airfix Centenary stock composite. Mine was inherited from a friend, but you can find them second-hand for a few pounds. A check on eBay while writing these words showed 37 available, most for less than £15. The same model is also available as Hornby R4026 Centenary composite, with second-hand examples costing from £25 each. Hornby acquired the Airfix tooling, so there is little difference between them other than that the Hornby model is newer, with better wheels and finish.

HOTOGRAPHY: CHRIS LEIGH



#### What you will need



#### **SHOPPING LIST**

- Airfix/Hornby GWR Centenary composite coach Price: from £10.00
   Availability: Pre-owned dealers
- Comet Models W54S GWR Collett Rebuilt Super Saloon Open First brass sides Price: £12.00
   Availability: Wizard Models
   Web: www.wizardmodels.ltd

#### **TOOLS**

- Craft knife
- Needle files
- Scissors
- Small flat-bladed screwdriver
- Small steel rule



Dismantle the donor coach. Insert a small screwdriver, coffee stirrer or a strip of old credit card plastic between the bodyside and underframe. There are only half a dozen clips and the body will lift off.



The brass sides are pre-formed to the curvature, which puts most modellers off. There is a small area of waste brass at each end where the door cutouts are. Just trim these off, cutting the tags with a craft knife.



Removing the waste piece will leave you with just the rain-strip above the door cutout. Discard the waste piece and note that the top edge has a thin strip attached by numerous tags. This will form the rain-strip. Don't cut it off!



Now it is time to prepare the plastic body. We'll be keeping the roof, ends and doors but removing the sides between the doors and below the rain-strip. I marked a pencil cut line a few millimetres inboard of the doors.



Next, I used a small flat-bladed screwdriver to remove the moulded glazing strip. It is glued in but the glue broke easily without damaging the body. The glazing can be discarded.



The Airfix plastic was found to be very soft. I used a craft knife to score - gently - along the side immediately below the rain-strip, using the rain-strip as a guide to keep the knife straight. It's easier than it looks.

## Workbench EXPERT MODELLERS SHOW YOU HOW



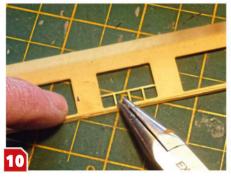
I used a razor saw to make the vertical cuts along my pencil lines leaving about 4mm of side inboard of each door. After half a dozen gentle passes of the knife along the side below the rain-strip, the side simply snaps away.



Next, I prepared the plastic body for fitting the sides. First, I filed back the remaining section of the side inboard of the doors so that the brass overlay can be glued to it.



I also filed off the plastic rain-strip as the brass overlay has its own rain-strip. The plastic needs to be filed back flush with the roof to provide a continuous location to which the overlay will be glued.



The rain-strip on the top edge of the brass overlay needs to be bent over through 180° and pressed down to lie flat against the coach side. You could run some flux and solder along it, but I did not find it necessary.



I test-fitted the overlays against the plastic body and applied glue to the top edge behind the rain-strip and to the plastic areas inboard of both doors. I used Evo-Stik Impact but if you prefer, cyanoacrylate could be used instead.



The interior will be seen through the windows so I needed tables and seats. A scrap interior from a Pullman car would do but I opted to scrap a damaged Kitmaster Blue Pullman car and remove the seat and table mouldings.



In order to remodel the Airfix interior I cut off all the seats and partitions, using a razor saw. I retained only the floor of the interior moulding and I removed all remnants of seats and partitions with a flat file.



I then attached the remaining floor section, upside-down, to a piece of 20thou styrene sheet using a generous amount of liquid polystyrene cement applied with a brush. This will be the new floor.



I scanned the floor plan which is supplied with the Comet sides and sized it to 4mm:1ft scale, printed it and glued the print to the floor. I then cut bulkheads and partitions from styrene sheet and glued them in place.



With the bulkheads in place I installed seats and tables recovered from the Blue Pullman. If you don't have access to a scrap vehicle from which to recover interior fittings, check the catalogues of Southern Pride and Comet Models for suitable detailing packs.



Once the body sides had set. I test-fitted the body to the chassis to check that the tables aligned correctly with the windows. The etched sides also include a small battery box which is folded up and fitted behind the truss frame.

58





The roof required attention to file off the water tank and removed one row of ventilators. I used some shell vents that I had in stock but they are quite a bit smaller than the remaining Airfix vents. You may prefer to replace the lot.



Next, the interior was painted with dark red carpets and 'leather' seats. I suspect the GWR probably used green carpets but I could find no references to colours for these particular vehicles. Now is the time to fit passengers.



Next, the bodyshell was sprayed with a grey primer. I used aerosols from Games Workshop but a Halfords primer will do the same job. I had not yet paid any attention to the roof but this can be done before or after priming.



I brush-painted the roof but used RailMatch 'rattle cans' for the GWR chocolate and cream, applying the cream first and then masking it with Tamiya masking tape before applying the brown.



Using the supplied diagram, I cut two new toilet water tanks from 30thou styrene sheet and bent them gently around a pencil until they matched the curve of the roof. I then glued them in place with liquid polystyrene cement.



I used HMRS pressfix BR coach lining and chopped up some DMU decals for the numbers. W9113 was formerly named *Prince of Wales* but BR did not use the names. I painted curtains onto paper and added them inside the glazing.

## RECREATE MODERN ENGINEERS' WAGON LOADS - PART 2

**George Dent** continues his mission to add realistic loads to his fleet of contemporary engineers' wagons.

n MR309, I explained how I created wagon loads for my Accurascale MHA wagons, in the form of bulk bags of fresh ballast. This was just the beginning of my mission to enhance my large fleet of post-privatisation-era engineers' wagons and, boosted by lots of positive feedback from readers, here's the next instalment...

As mentioned in this month's Welcome page, my workshop has recently been tidied and reorganised, creating a much more pleasant working environment. As a result of this spring clean, I found a stack of plastic sleepers recovered from a length of Peco flexible track. I forget why they'd been stripped from the rails, but the 'steel' sleepers gave me the idea of creating further wagon loads.

Steel sleepers offer many benefits, with long working lives (around 50 years) and they're recyclable, as well as requiring less ballast. Formed into a hollow, inverted 'U'-shaped profile, steel sleepers can be stacked, thus reducing storage requirements, and making them easier to transport.



I've seen stacks of steel sleepers loaded into a variety of engineers' wagons over the years, so the Peco sleepers were soon being trimmed and bonded together, ready to adorn the interior of a suitable wagon.

The sleepers did take some time to prepare, cutting away all of the plastic webbing and trimming away the surface detail to allow them to be stacked. However, the couple of hours of tedium were rewarded by a pretty striking end result, so it all proved worthwhile.

In addition to the Accurascale MHAs featured here (and in MR309), Hornby recently sent me a new set of its MHA opens, which depict a slightly different prototype, thus providing welcome variety. The Hornby wagons received loads of fresh limestone ballast, carefully shaped into an authentic heap before bonding in place. These loads contrast nicely with other wagons loaded with recovered spoil.

Incidentally, having weathered the Accurascale MHAs with the help of an airbrush, I opted for a different approach with the Hornby wagons, as demonstrated here. The use of dry pigments creates a similar, yet different, effect and, again, this simply adds to the visual variety and avoids an overly uniform appearance across my whole fleet.

Provided all loose dry pigment is dusted away, there should be no need to seal the final result with a matt clear coat or pigment fixative solution. Besides, adding any fluid coating usually make the surface appear cleaner, which may or may not be the desired outcome!

That said, it does pay to handle the finished models carefully in future, although I do find that a little extra wear and tear can actually add to the overall weathered appearance. We just need to avoid depositing greasy fingerprints!

If you do find that the weathering starts to wear away in future, it can simply be recharged with a further dusting of pigment, while it can be removed or manipulated using isopropyl alcohol and cotton swabs or paintbrushes.

## One of the joys of modelling engineers' wagons, in the R and privatisation eras. is the diversity of wagon ads that can be created for open vehicles

#### PREPARING THE WAGONS



Both Accurascale and Hornby offer MHA ballast/spoil wagons in EWS or DB Cargo condition, each brand representing different prototype versions. I plumped for a DB Cargo-era set of the Accurascale wagons and an EWS-branded Hornby set (pictured).



It took many years before the EWS branding was removed by DB, however. So, to add a bit of variety, I decided to remove the lettering from one of the Hornby wagons, using a little T-Cut Original finish restorer and cotton swabs.



After rubbing the letter with the T-Cut on a cotton swab, the character will begin to disappear. Switch to a clean swab and buff the surface clean of any T-Cut residues and repeat with the next letter. Set aside to allow the solvent to evaporate.



To mimic the overpainting of the EWS logos, as seen on the real wagons, I painted patches of a lighter shade of red (a mix of Red and Dark Rust). It's possible to paint over the EWS logos, but the tampo-printed letters will show through.



A quick upgrade for the Hornby MHA is to touch in the locating pins of the bodyshell, which protrude below the floor, with matt black paint. I find LifeColor acrylic paints so easy to use, especially with a brush, and they dry within minutes.

#### What you will need

#### **SHOPPING LIST**

- Hornby R60161 MHA ballast wagons, EWS red Price: £72.99 triple-pack Availability: Hornby stockists Web: www.hornby.com
- Accurascale MHA ballast/spoil wagons, DB red (ex-EWS) Price: £74.95 triple-pack **Availability:** Accurascale stockists Web: www.accurascale.co.uk
- Peco SL-104F steel-sleeper flexible track, 1 yard **Price:** £5.00 per length **Availability:** Peco stockists Web: www.peco-uk.com
- Limestone and Siding ballast packs **Availability:** Geoscenics Web: www.geoscenics.co.uk

#### **TOOLS**

- Knife
- Tweezers
- Fine nose pliers
- Files and abrasives
- Cutting shears
- Paintbrushes

#### **GLUES & PAINTS**

 Deluxe Materials Roket Rapid & Max cyanoacrylate glues, Roket Blaster accelerator fluid, Ballast Bond, Pinpoint Applicator tips Availability: Model shops

or Gaugemaster

Web: www.gaugemasterretail.com

MIG weathering washes and dry pigments, Tamiya paints

**Availability:** Scale Model Shop Web: www.scalemodelshop.co.uk

LifeColor paints, dry pigments

**Availability:** The Airbrush Company

Web: www.airbrushes.com



When the acrylic paints were dry, I gave the wagons an all-over coating of matt clear coat, sprayed from an aerosol, It's best to remove the wheels before spraying, covering the axle bearings with small squares of masking tape.

## Workbench expert modellers show you how



Let the coat dry overnight. The matt surface will be much more receptive to dry weathering pigments, which can be brushed liberally over the bodysides. Cover the workspace with scrap paper, as this will get messy!



A mix of black and dark earth pigments were blended before application, tailoring the shade to suit taste. Dry cotton swabs can then be used to manipulate the pigment, cleaning it away from the flat areas between the ribs



If the surface is still too grubby, dip the swabs into acrylic thinners and wipe away the excess pigment. Traces of grime will remain around the raised ribs, creating a convincing appearance and enhancing the surface relief.



A soft-bristled flat brush can be used to dust away any debris, or to add lighter layers of the dry pigment. It may take practice to get the results you desire, but the thinners will allow you to take a step back and clean the surface.

The dry pigments will also adhere to the underframe. thanks to the matt clear coat. I tweaked the mix to a slightly browner shade and dusted it around all the nooks and crannies. Clear away any loose debris with a clean brush.







After sliding the rails out of the fasteners, cut away the plastic webbing between each individual sleeper. Yes, this is a tedious, time-consuming process, but it can be eased by using a fresh scalpel blade and listening to an engrossing podcast or two!



The Accurascale and Hornby MHAs will accommodate rows of up to 20 sleepers, depending on the gap between each. Stacking three layers of sleepers brings them up to a realistic height within the wagon, when mounted atop thin timber battens.



The battens were cut from hardwood battens, approximately 2mm thick. Before fixing into the wagons, they were given an aged and weathered patina using an enamel-based weathering wash. Brush it on, allow to soak into the grain, then wipe away the excess.



Allow the weathered battens to dry for a few hours before fixing into the wagon with a few drops of glue (I used cyanoacrylate). PVA or contact adhesive would also be suitable, but they'd take longer to dry and are potentially messier.



To create the sleeper stacks, the two lower levels need their rail fasteners paring away with the knife. Again, a sharp blade is essential and be sure to cut away from yourself and your fingers - I ended up with a nasty cut to the thumb from not practising what I preach!



The prepared sleepers bonded into stacks of three, using cyano glue. The tough plastic employed by Peco is not the easiest material to bond. Cyano accelerant was used in order to speed up the assembly process, but it's not essential.

#### **SPOILING TACTICS**

As well as a few wagons loaded with fresh, clean ballast, I filled a couple of MHAs with 'dirty' ballast to represent recovered spoil. A pre-blended 'Siding' ballast from Geoscenics was poured into the wagon and shaped into a convincing 'heap'. Scrap sleepers, an oil drum and concrete trunking sections were half-buried within the spoil, along with a grubby traffic cone.

A pipette was then used to dampen the ballast with Tamiya's acrylic thinners (isopropyl alcohol), before Deluxe Materials Ballast Bond was applied with a precision applicator tip. The Ballast Bond penetrates the loose material, aided by the alcohol-based thinners. Once the whole mound appears damp, the wagon should be set aside in a warm space overnight to harden.







The stacks were test-fitted into the wagon and a final decision made as to how many stacks to install. It's important that the rows are evenly spaced and a gap at one end is avoided when you come to glue them in place permanently.



The coarsely misted paints give the sleepers a more authentic texture and colour. I considered picking out the rail fasteners in a bright colour (as per the real things), but my patience was beginning to wane! I may revisit this in future, though.



The stacks were bonded with straps shaped from nickel jewellery wire (available from craft stores), twisted underneath and the waste trimmed away. The wire tails were folded into the recessed underside of the sleepers.



As well as extra authenticity, the wire straps will provide extra strength to the stacks. The sleepers were placed on a strip of double-sided tape and sprayed with layers of matt black, red oxide and brown aerosol primers.





## **Know your stuff**

This is where our team of experienced modellers answer YOUR questions. Email your queries about railways - real or model - to modelrail@bauermedia.co.uk



George Dent
MR's editor and chief
model maker can offer
advice on almost any
subject.



## WORK WITH 3D-PRINTED PARTS

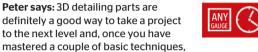


The arrival of 3D printing has added another dimension to our hobby, with various sources offering unpainted detailing parts. I'm just wondering how easy they are to use. What tools and materials do I need, and can they be painted easily?

Gareth Jones, by email



Peter Marriott
Scenic guru! Knows
what's available and
how to use it.



Taking the ever-expanding West Hill Wagon Works range as an example, parts are offered in 'N', 'TT', 'OO' and 'O' gauge and there's a massive

they offer great value for money.



selection of scenic accessories to choose from, with a particular focus on railway depot and yard equipment.

Some of the parts, such as the wooden pallets, come ready to prime

and paint, but others are supplied attached to a support structure, which is a necessary feature of 3D-printing. In the latter case, the parts are supplied in this way to ensure that they're not damaged in transit, but the waste will need to be removed before painting, which demands a little care.

In many cases, a small pair of sharp sprue cutters can be useful for removing parts from the support pillars. If the parts are very delicate or there's not enough room for the sprue cutters to work, use a scalpel with a fresh blade, while supporting the components. Any traces of the supports or other waste material can be abraded away with a needle file or sanding pad, but be aware that it can be easy to remove too much material by being overly keen with the abrasives!

Next step is to wash the components in warm soapy water, to remove any debris and traces of grease. Leave them to dry naturally before applying a primer coat, using a brush, aerosol or airbrush. Once this layer is dry, the first coat of paint can be applied. I found



Chancellor
Paul is the proprietor
of the well-known
railway photographic
archive Colour Rail.



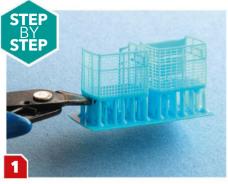
Dave Lowery
Professional model
maker who's been
there, done that and
got the T-shirt!



Chris Gadsby
The smaller the detail,
the more interested
he is.







The West Hill Wagon Works BRUTE trolleys are supplied on a complex support structure, to protect them during transit. A set of good quality sprue cutters can be used to trim away the waste, taking care around the wheels.

that two coats of paints were often needed to fully cover the items, but much depends on the type of paint employed and the application method. The dry-brushing method is recommended as a finishing touch, using lighter shades to enhance the surface relief and draw the viewer's attention to the wealth of detail usually present on 3D-printed components.





Any remaining traces of the support sprues can be removed with a needle file and/or fine abrasive strips. A sharp scalpel is also useful for trimming away waste, although it's easy to cut away too much material, so take care!



After washing and drying the parts, I used Vallejo acrylic green and grey primers, applied with a brush. The paints need a good shake before use and the paint can be decanted onto a scrap of card before brushing it onto the models.



Excess material was removed from the pallets using Tamiya finishing paper, although this was only needed on a few of the ten pallets in the pack, as most of them were perfect straight from the packet.



Once the primer had fully dried, I brush-painted the first topcoat of acrylic paint. With the timber pallets, I kept the brush strokes in line with the grain direction and the dark primer helped to produce an authentic range of tones.



When priming the BRUTEs, I used thin coats to avoid clogging the fine mesh detail. An approximation of BR Rail blue was created with a mix of MIG acrylics (blue, white and a dash of yellow), while the wheels were touched in with matt black.



#### What Peter used

Oil barrels, ten-pack (£2.95); Pallets, ten-pack (£2.49); BRUTE trolleys, three-pack (£5.95), Euro stackable storage boxes, ten-pack (£1.95) Web: www. westhillwagonworks.co.uk

#### **TOOLS AND MATERIALS**

- Small pair of sprue cutters
- Scalpel and fresh blade
- Needle file
- Fine abrasive pads
- Paintbrushes
- Primer and paints





### KNOW YOUR... LIVERIES

PART 19: Ex-GWR locomotives - the 'Cycling Lion' years

Paul Chancellor studies how the Western Region adopted the original BR emblem.

uring the locomotive livery experiments undertaken during the early years of nationalisation, BRITISH RAILWAYS lettering initially adorned locomotive tenders or side tanks, pending the creation of a distinctive logo.

By 1949, however, a nominally 'standard' set of liveries was announced that would be applied across each of BR's regions. This was to be lined blue for prestige Class 8 locomotive types, lined green for Class 6 and 7 passenger locomotives, and lined black for all other passenger or mixed traffic types, while all freight traction would receive a plain black scheme.

The new logo consisted of a lion standing astride a large wheel, with BRITISH RAILWAYS lettering within a horizontal bar. The lion was rendered in a semi-Modernist style, with the spoked wheel signposting the industrial might of late 1940s Britain. Nicknamed the 'Cycling Lion', the logos were applied in various sizes, and chosen to suit the proportions of individual locomotive designs.

The Western Region, as ever, would provide a number of variations to the 'standard' schemes, with lined green being applied to locomotives that ought to have been plain black, with the 'Cycling Lion' logos applied, prior to the adoption of a revised emblem, which first appeared in 1956.

All of these images were captured at Swindon unless stated otherwise.

Right: Lined black livery was applied to the rest of the ex-GWR 4-6-0 designs, as seen here on 'Modified Hall' No. 7928 Wolf Hall in 1955. Of interest is the different lining pattern on the Hawksworth and Collett tenders. dictated by the profile of each vehicle. The shape of the tender also dictated the size of emblem employed. Another occasional variation concerned the painting of the name and cabside numberplates with a red background. This was noted on at least one 'Saint' but also on a '63XX' 2-6-0. COLOUR RAIL



Below: No. 7004 Eastnor Castle, just three years old,

shows BR's 'standard' lined green livery. Although, in theory, this scheme was permitted on locomotives in the '6P' power classification, it did not appear on the ex-GWR 'Counties', owing to their mixed traffic nature. T. OWEN/COLOUR RAIL



66 Model Rail 313 June 2023



Tank engines came in various shapes and sizes and that in turn determined the size of crest applied. The crests were always applied with the lion facing towards the chimney. No. 1338 was one of a small number of ex-GWR engines that did not carry a route disc, being deemed light enough to be designated as 'unclassified'. COLOUR RAIL



Lining patterns had to take into account the foibles of individual locomotive designs, but schemes also differed according to the overall livery specification. The difference between locomotive green and mixed traffic black are visible in these two images. Both images were captured in the mid-1950s. BOTH: T. OWEN/COLOUR RAIL



Above: The larger tank engines such as the 0-6-2 and 2-6-2 types were given the large crest, as seen here on ex-Taff Vale Railway No. 322. In the early days some were noted running without a front numberplate. T. OWEN/COLOUR RAIL

Below: At Aberystwyth, Vale of Rheidol No. 8 is seen wearing unlined BR green, complete with 'Cycling Lion' emblems, in this view from 1958. COLOUR RAIL





Above: In a change of policy in 1956, the regions were given more freedom concerning livery application and the Western adopted an attitude that, arguably, equated to 'if it moves, paint it green!' '64XX' No. 6421 became one of a small number of locomotives used on passenger duties that received lined green in combination with the 'Cycling Lion' emblem, seen at Bicester North in September 1960. COLOUR RAIL



Above: The numerous pannier tank classes only had room for the small crest, but just to confuse matters the Western flouted the rules by applying lined black livery to a small number of '8750' and '1500' class engines which were employed on empty coaching stock duties at Paddington, such as No. 1505 seen here, still so adorned in 1961. T. OWEN/COLOUR RAIL

# DAVE LOWERY'S TOP TIPS

#### ALIGNING THE GAP

As anyone who has ever built an exhibition layout will know, the number one challenge is creating a reliable joint between the baseboards, ensuring correct alignment of the tracks every time you put the boards together.

You can imagine my concern, therefore, when my good friend Dennis Lovett asked me to build his retirement layout, so he can exhibit his life-long collection of historic Hornby, Wren and Tri-ang models.

The project seemed straightforward, until I heard the size of layout he wanted, which would have to fit in a fairly small car, leading to a maximum board size of 5ft by 3ft. However, Dennis wanted a 12ft by 5ft layout!

That would require three main baseboard joints, and the horror increased when I realised that this would entail over 30 track joints!

Over the years, I've used copper-clad sleeper strip or copper-clad sheets, each being glued to the baseboard edge with the rails soldered into position. Insulation gaps would then be cut into the rails in situ. This is fine for a few track connectors across the boards, but even this approach usually required adjustments over time.

Imagine my delight when Dennis announced that he'd discovered ProTrack rail aligner packs, produced by Modeltech, which are designed to help with baseboard joints.

Although their design is deceptively simple, the rail aligners are extremely effective. Intended to replace the three sleepers either side of a baseboard joint, the heat-resistant paxolin material is shaped to resemble sleepers, with copper clad upper surface, onto which the rails can be soldered. What's more, the aligners are the same thickness as Peco sleepers, so there's no need for packing material to ensure consistent rail height.

Supplied in halves, each pair has a wavy interface between components, so alignment is spot-on every time. There are even feature connector points for power connections and pre-drilled holes for track pins or small screws.

To install, I tinned the copper-clad surface beforehand, then carefully cut the unwanted sleepers away from the track, either side of the baseboard joint. The track was then laid in place and pinned. Track aligners were slid into place beneath the rails and pinned into place. Once the rails had been soldered to the aligners, the rails could be cut. Using a cutting disc, I put a small bevel inside the rails at each joint, to help the trains run smoothly.



When designing the layout, I tried to keep all rail joints square on to the baseboard sections. Alas, with the best will in the world, there will be one or two that can't avoid coming together at an angle, as can be seen at the bottom of the picture, next to the hinge. But the Modeltech ProTrack aligning components ensured that all tracks operate perfectly.



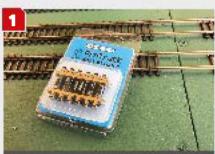
Out of the packet and you can clearly see the serrated edges that give perfect alignment every time they are joined together. I chose to tin the copper-clad areas, to make soldering the rails in position that bit easier.



When happy that everything is square and true, the aligner can be fluxed and then soldered into place. Be careful not to get carried away with excess solder bridging the gap between the two halves of the aligner.

#### What Dave used

 Product: 'HO/OO' gauge ProTrack Rail Aligner, Standard Price: £10.00 per pack Web: www.modeltech.uk



The aligners come in packs of four pairs, and are a direct replacement for Peco sleepers. Areas of copper-clad are provided for fixing the rails, plus pre-drilled holes for easy pinning to the baseboard.



Once the plastic sleepers have been removed from the track, which has been laid across the baseboard joint and pinned down, the aligner can be slid into place and secured in position with a track pin.



I use a slitting disc mounted into an electric drill to cut the rails. If it is a butt joint between two baseboards, make the cut vertical. If the board is hinged, cut at an angle so the rail ends lift away from each other. Be sure to clean away any flux residues after soldering.

#### **HOW TO**

#### KEEP MY WIRING TIDY



I'm currently doing the wiring for my layout but I'm getting tangled in a maze of wires underneath the baseboard. How do I keep things

tidy under there to give me more space and make things easier?

J. Ford, by email

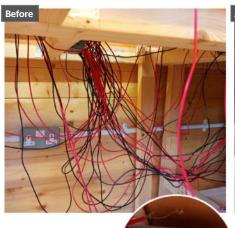
Chris says: Particularly when wiring your first layout, it can be very easy to get carried away with making trains run and not pay too much attention to the wiring. The result can be something that looks a bit like the 'before' picture here, with wires dangling below the baseboard like a line laden with washing. It works perfectly well, but there is a danger of damaging the wires and it becomes a lot harder to move underneath the layout. Fortunately, having tidy wires underneath your layout is easy to achieve, and although it may require a bit more wire, the end result is much neater.

The best way of removing the 'washing lines' is to run the wires along the braces of your baseboard. This way they aren't protruding below and will be at far less risk of damage. The first thing to do is to decide where on the braces you're going to put your DIN (Deutsche Institut für Normung) rail. DIN rail is a commonly used metal for mounting things such as circuit breakers and equipment inside machines.

#### What Chris used

- DIN rail £5 per metre
- Wago 2000 1201 DIN rail terminals
   60p per unit
- Wago 2000 404 Jumper 80p per unit

Availability: www.uk.rs-online.com

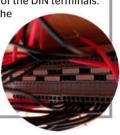


In this scenario, I use DIN rail for mounting my DIN rail terminals, which are plastic components with metal interiors. You

can add as many of these terminals side by side as required and the wires will simply clip into them. To conduct the electricity between terminals, jumpers with metal prongs are inserted in the middle. There's no soldering, and to release the wires all you need is a flathead screwdriver.

Insert the wires into the round holes at the top and bottom, using a small, flat-bladed screwdriver in the small square hole next to it to release the clip. Once you have inserted the wire, remove the screwdriver and the clip will hold the wire in place. Make sure you have an insulating piece between the positive and negative halves of the DIN terminals.

Once happy, test the track to make sure it works as planned and tighten the cable tie. The underside of the layout is now much neater.





With a small layout With a Sman id, 2 you can feed all the wires back to one central terminal block, but on larger layouts you may want several placed in strategic areas, connected together with bus wires. For wires travelling across braces, drill a hole through the brace and feed wires through it towards the DIN rail terminals. I used a 22mm drill bit to make the hole. which provides plenty of space for approximately 20 wires, and then threaded them through, not worrying about any droopiness at this stage.

You can begin to affix the wires to the sides of the braces, moving your way around the braces towards the terminals. To achieve this, put a small screw in the brace and fix two cable ties to it, one around the screw and the other looped around the first and the wires. This allows you to have the wires tight to the side of the brace but you could remove the cable tie and replace a wire if something was to go wrong in the future. Don't tighten the cable tie until the last moment, as the slack will help you.

#### ALTERNATIVE APPLICATOR



George says: Yes, natural sponges are available from art and craft stores, which feature a much more random texture than manufactured sponges. After breaking off a small piece of sponge, it can be dipped into wet paint then dabbed onto the model's surface. For best results, dab the sponge onto tissue first to remove most of the paint, which will help create subtle results and give

you full control over the weathering effects.

Holding the sponge in a pair of tweezers is recommended, and smaller pieces can be worked into even the most awkward spots – just the job for a hopper wagon, where support brackets often get in the way. Another useful tip is to vary the shades of rust, employing a handful of paints to create a less uniform appearance.

As with any technique, it pays to practise on scrap models or a sheet of card beforehand, to give yourself a clear idea of how the sponge behaves and help judge the correct amount of paint to use. That said, keeping a little isopropyl alcohol (for acrylics) or white spirit (for enamels) on hand will allow you to remove the wet paint if you're not happy with the results.





## Masterplan Reading Signal Works

Track plans to get you thinking in three dimensions



## The logic of design:

Reading the signs and thinking it out

**Paul A. Lunn** offers a variety of layout plans based around Reading Signal Works.

rowing up in a railway family, surrounded by railway staff and railway modellers, means I've experienced many things first hand, relevant to what I do in *Model Rail*.

Over the years I've built up a resource that in one sense is great – it reflects all my preferences – and in another, my shortcomings. There's such a lot I know nothing or very little about!

Normally, creating layout plans can be relatively easy, usually because it has been me who has chosen the theme and I often play to my strengths.

However, there's a part of me that really enjoys being given something, completely off my radar, because I know it will stretch my skill and imagination further. Thus it was I received an email from *Model Rail* editor George Dent, asking if we can do something based around Reading Engineers' Yard and/or Signal Depot.

This was, ostensibly, to coincide with the arrival of *Model Rail*'s exclusive 'PWM' locomotive, with a number of the Ruston & Hornsby diesels spending their careers at Reading. Furthermore, other small diesel locomotive types became synonymous with the Berkshire town during the late years of British Rail, including a Class 06 and a Ruston 88DS,

both of which are in the Hornby catalogue.

After trawling through my bookshelves, I came up blank in terms of useful information on Reading's Departmental sidings. However, there's nothing like a challenge, so I set about searching the internet.

#### THE RIGHT SIGNALS

As outlined in this month's Masterclass (p40), the 'PWM' locomotives were built primarily to operate with permanent way wagons and, at Reading, this meant working the Engineers' Yard beside the diesel depot, to the west of Reading General station. These sidings were taken over by the Permanent Way Department in the early 1970s and used to load/unload and marshal engineers' vehicles of varying types, such as rail carriers, ballast and spoil wagons.

In terms of layout design, these sidings are not particularly inspiring, although the adjacent diesel depot does present a natural focal point.

In contrast, Reading Signal Works, on the north side of Reading General station, looks much more interesting. Built by the Great Western Railway in the 1860s, the Works assembled much of the signalling equipment employed on the GWR and, later, BR Western Region until closure in 1984.

#### A STARTING POINT

This prototype plan, of Reading Signal Works and low-level goods yard, is an accumulation of inspiration from numerous maps and plans, aerial and close-up photographs, and books. It's an easy and effective way of getting an idea of a place and I'll develop my track plans from the detail here.

If it has a shortcoming, it's that information can and usually is from different periods and you can see conflicting items. A building may have been demolished or a new one added and, most misleading, tracks may have been lifted, realigned or added. These are the sort of things you might expect at Reading Signal Works, with numerous refurbishments, rebuilds and a couple of serious fires over the decades.



For added interest, wherever possible, I'm going to add the rear lower yard. Now, on a decent size baseboard you could nearly have it all, or certainly something that looks very similar to the real thing, as outlined in red.

Tight for space? Then why not settle for the part shown in green, which uses the main incline as a viewblocking backdrop. Both green and red areas would be viewed from point **A**.

With the area outlined in yellow, the

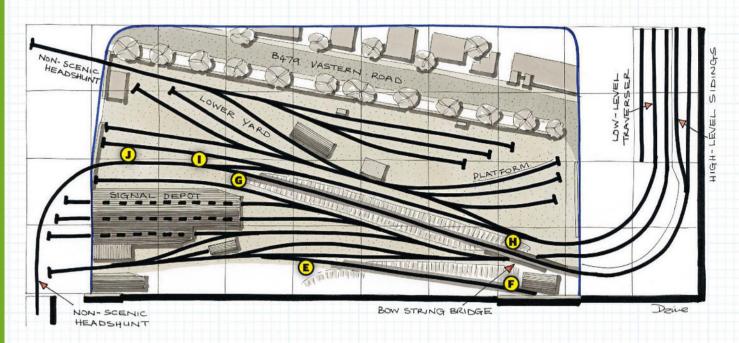
layout could be viewed from either side, with part of the embankment at **B** as the backscene when viewed from **A**. Alternatively, you could view from **C**, with the embankment (**D**) as part of the backscene. In this latter scenario, I'd be tempted to reduce the workshop buildings to maximise the area of open tracks. Let's convert these into modelling track plans, bearing in mind that nothing is fixed in stone at this point.

#### AN AERIAL VIEW

A map is an excellent start but it doesn't tell you much about how a place looks in three dimensions, and the depot is a great example. On many plans it looks like there's a diamond crossing (bottom right of my plan above), but in reality, it's a flyover on a bowstring bridge.

So start by familiarising yourself with as many images as possible. I often open up a file of internet images and a rough track plan, then arrange the images around the track in order of relevant location. Try to get an imaginary visual 3D image of the entire, trapezoid-shaped site. In this 1948 aerial photograph note the tree-lined Vastern Road, bottom left, the bowstring bridge, top left, and Caversham Road, lower right.





#### **WORKING OUT WHAT GOES WHERE**

Start to familiarise yourself with all the key features – track angles, building shapes, and so on. Think of volume too. Clearly, the main workshop will have to be reduced in size, the smaller the layout.

Consider textures too: while much of the yard floor is very similar, there'll be numerous subtle differences and while the railway scene will be covered in a 'hard' surface, the tree-lined avenue of Vastern

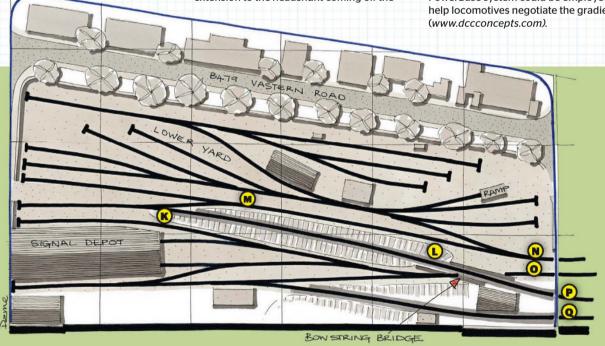
Road will provide a wonderful, organic foil.

At 10ft by 4ft you can have a fair stab at the prototype, retaining most of the key features. I've chosen a reverse 'S' arrangement with the scenic section largely diagonally placed across the main board. There are high and low-level non-scenic tracks, a low-level traverser consisting of three tracks, each capable of holding six short wheelbase wagons, plus two high-level sidings with the same capacity per siding.

There's a hidden non-scenic curve extension to the headshunt coming off the

graded line, to the left of the plan, and this could be extended onto a longer, narrow non-scenic 'shelf'.

In terms of gradients, **E** to **F** is for scenic purposes only, though could be used periodically for storing a locomotive and train. I'd be tempted not to make this gradient too steep at **F**, so as not to block the view of the bowstring girder bridge. **G** to **H** is fairly steep, at a little over 1:18, but this could be increased in length (and the gradient thus eased) by moving crossover **I** to **J**. Or, DCCconcepts' PowerBase system could be employed to help locomotives negotiate the gradient (www.dccconcepts.com).



The first plan requires a sizeable baseboard, so can we get any smaller? Yes, at 6ft by 3ft 6in, plus non-scenic sidings, in either 'L'-shaped format or curving round the back of the layout beyond Vastern Road.

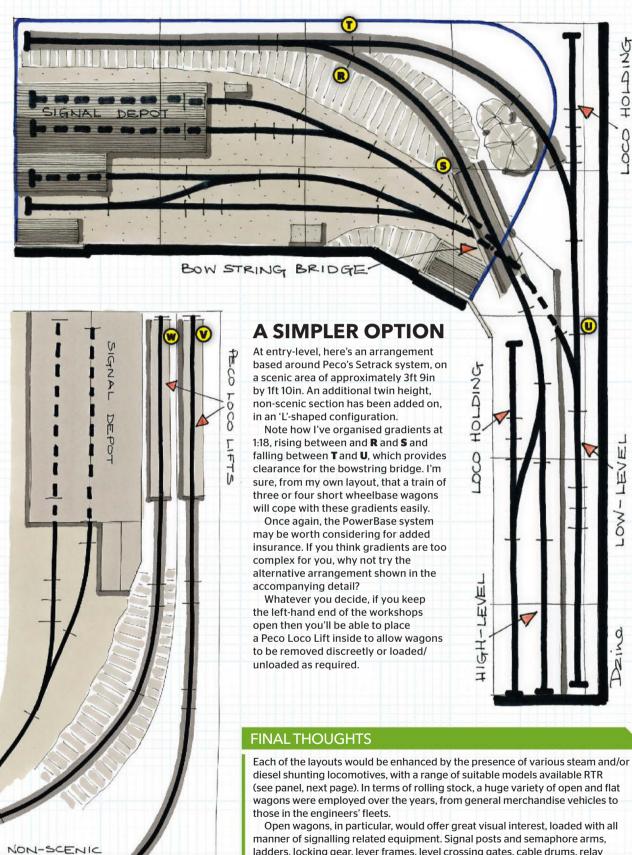
In order to make gradients work, the following will be required: **K** to **L** rises 1in at a ratio of 1:20, **M** to **N** falls 2in at 1:20. Tracks **N** and **O** will be at the same level, as will all of the Signal Works Yard. Track **P** will sit at the highest level and **Q** 

somewhere in between. Again, DCC Concepts' PowerBase may also be beneficial here.

Please note the headshunt left, from  ${\bf K}$ , will hold a short locomotive and three or four wagons.

HOLDING

000



If you'd struggle with tight gradients and bridge clearance on the Setrack design, then consider this alternative which makes use of Peco Loco Lifts to move a shunter and a couple of wagons between the two levels. The depot buildings in the foreground would block the view of these surreptitious movements. Loco Lift V is shown at the lower level, whereas W is at high level.

SECTION

diesel shunting locomotives, with a range of suitable models available RTR (see panel, next page). In terms of rolling stock, a huge variety of open and flat wagons were employed over the years, from general merchandise vehicles to

Open wagons, in particular, would offer great visual interest, loaded with all manner of signalling related equipment. Signal posts and semaphore arms, ladders, locking gear, lever frames, level crossing gates, cable drums, relay cabinets and generic lengths of timber and pipework. All of these could be recreated from cheap kits or reclaimed details from previous layouts.

In the production of this article, while trying to compress a vast prototype into a series of very small spaces, I have had to compromise on absolute true fidelity in a number of locations.

Some elements have been left out, others significantly foreshortened, and a few fictional scenic devices have been added for improved visual or operational purposes. Despite all this deviousness, I'd like to think all the layout plans still depict Reading Signal Works.



# FACTFILE: READING SIGNAL WORKS

The GWR's Signal Works was first established at Reading around 1859, with several expansions and modifications carried out over the following decades. Created for signal production and maintenance, the depot was modernised by British Railways in the late 1940s and again the 1950s.

Eventually, as semaphore signals and mechanical frames were superseded by electronic signalling, Reading began fabricating electric panels from the 1960s, although traditional signalling gear was still maintained on site. The works closed in 1984.

Over the years there had been numerous offices, workshops and stores buildings on site, including an erecting shop (for lever frames), drawing offices, timber store and carpenters shop, drying shed, electrical assembly shop and telegraph shop.

There was also a clock and watch repair shop, originally situated within one of the buildings, but in later years this work was undertaken in a disused signal box in the yard.

### **FURTHER READING**

Essential reading for anyone interested in the signal and engineers' yards at Reading – and all other BR departmental depots – is *British Rail Departmental Locomotives 1948-1968*, by Paul Smith and Shirley Smith (Ian Allan, 2014, ISBN 9780711038004).

The book contains plenty of track plans and images of each depot and, as the title suggests, it also covers the various steam and diesel locomotives to have worked at these sites.



### **MOTIVE POWER AT READING SIGNAL WORKS**

- GWR Simplex 4wPM Motor Rail, No. 27, built 1926, retired 1957 and withdrawn 1960, (Impetus kit, only available second-hand)
- ♦ GWR Class 850 0-6-0ST, No. 1925, withdrawn 1951, (Alan Gibson Kits, subject to demand)
- ♦ Hawthorn Leslie No. 1153 (Works No. 2558)
- Powesland & Mason 0-4-OST, built 1903, arrived at Reading 1953 and departed 1954 (Similar to Peckett 'Pug')
- Ruston 88DS 0-4-0 No. 20 (TOPS 97020), Works No. 408493, delivered 1957 and withdrawn 1981 (Hornby, Judith Edge kit)
- BR/Andrew Barclay O-4-ODM, 06003 (ex-D2420), TOPS 97804, preserved at Peak Rail. Also 06002 as spares donor for 06003 (Hornby, Judith Edge kit)
- Ruston & Hornsby 165DE PWM653/654 were based at the nearby Reading Engineers' Yard (Model Rail/Kernow/Heljan see page 103)

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Left: Ruston 88DS 20 stands beside the loading dock at Reading Signal Works, in May 1976. Note the concrete hardstanding, cable drums on the platform and bowstring girder bridge in the background. COLOUR RAIL

Below: Another shot of 20 in the Signal Works yard, beside a loading platform stacked with steel reinforcement sheets and a dumped colour light signal head. Hornby is working on a rendition of 20, due to be released later this year. COLOUR RAIL

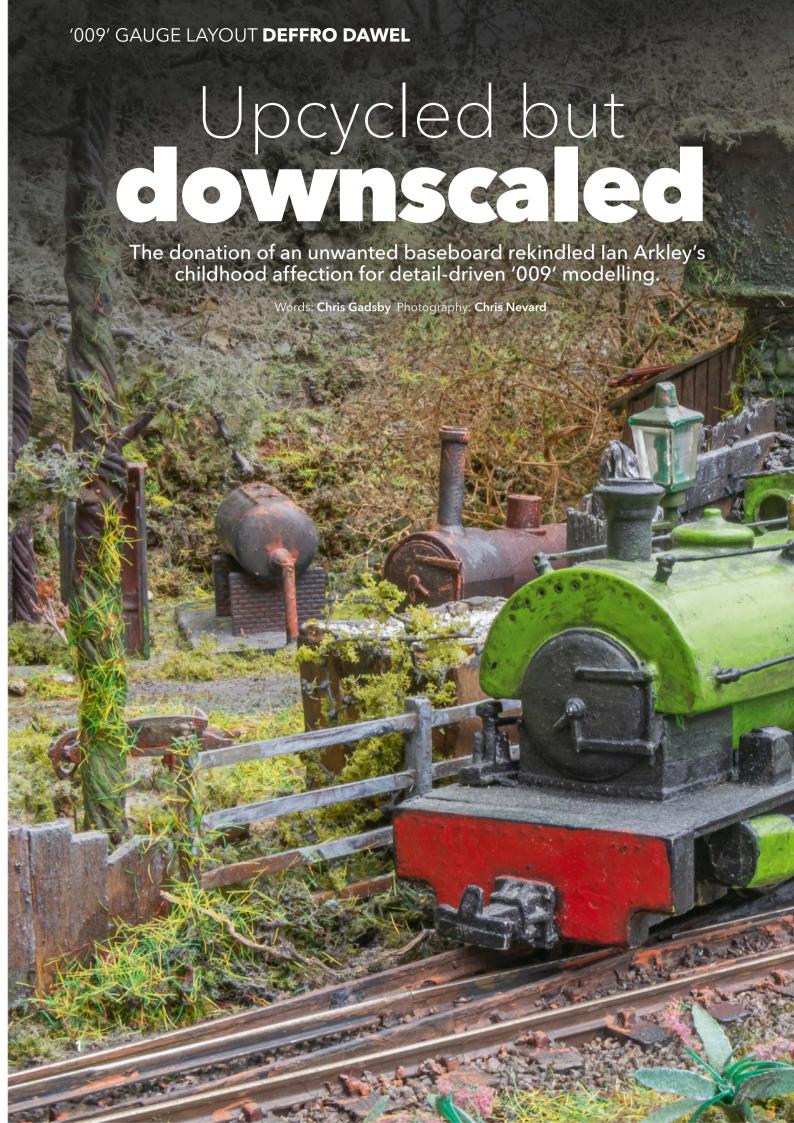


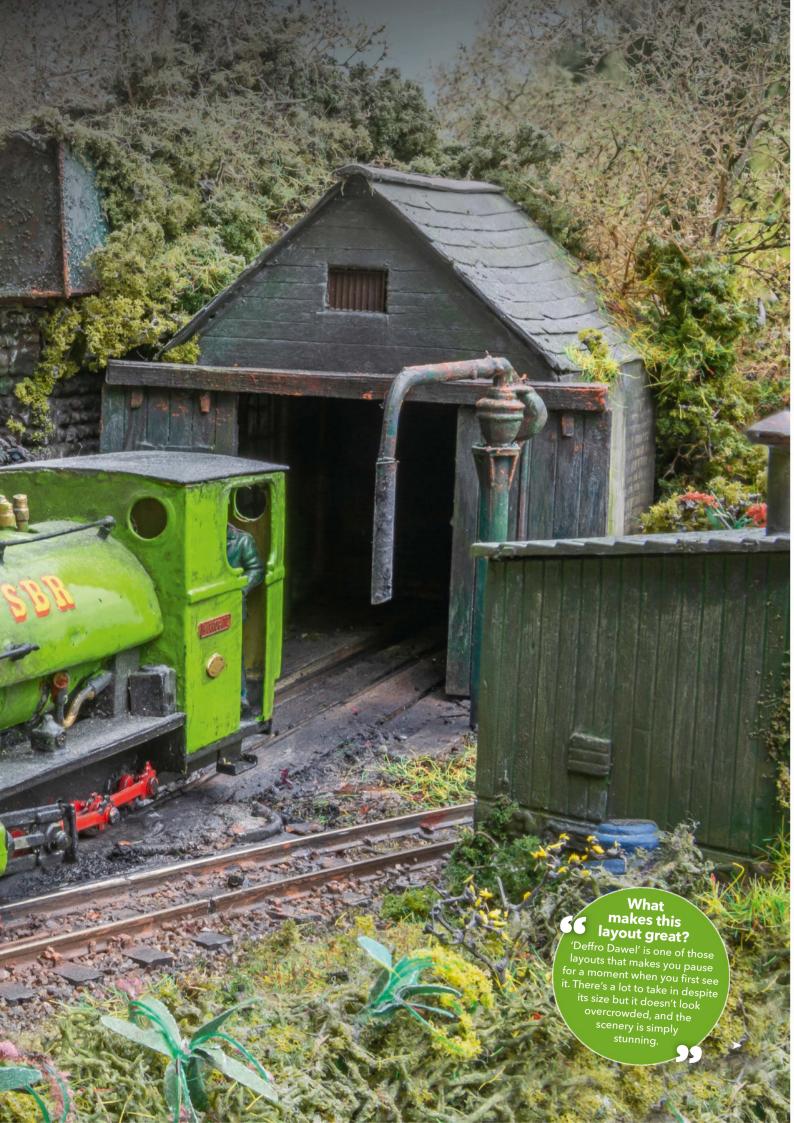


Above: Looking rather shabby, Reading's Ruston & Hornsby 165DE PWM653 is coupled to a crane and tool van at West Ealing, in April 1975. COLOUR RAIL

Below: Another view of Reading's PWM653, marshalled among a permanent way maintenance train, ready to be hauled to a worksite. COLOUR RAIL







### '009' GAUGE LAYOUT **DEFFRO DAWEL**



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example, is a model of the SBR locomotive based at Harrogate. My friend started that kit, but found it was very fiddly and lost patience with it, so gave it to me as a gift to finish off. The Kerr, Stuart and the Vale of Rheidol locomotives are both models that I've kit-built using ready-to-run chassis; it's simple to do and gives you a model you feel you've had a hand in producing rather than just sticking your PIN into a machine!"

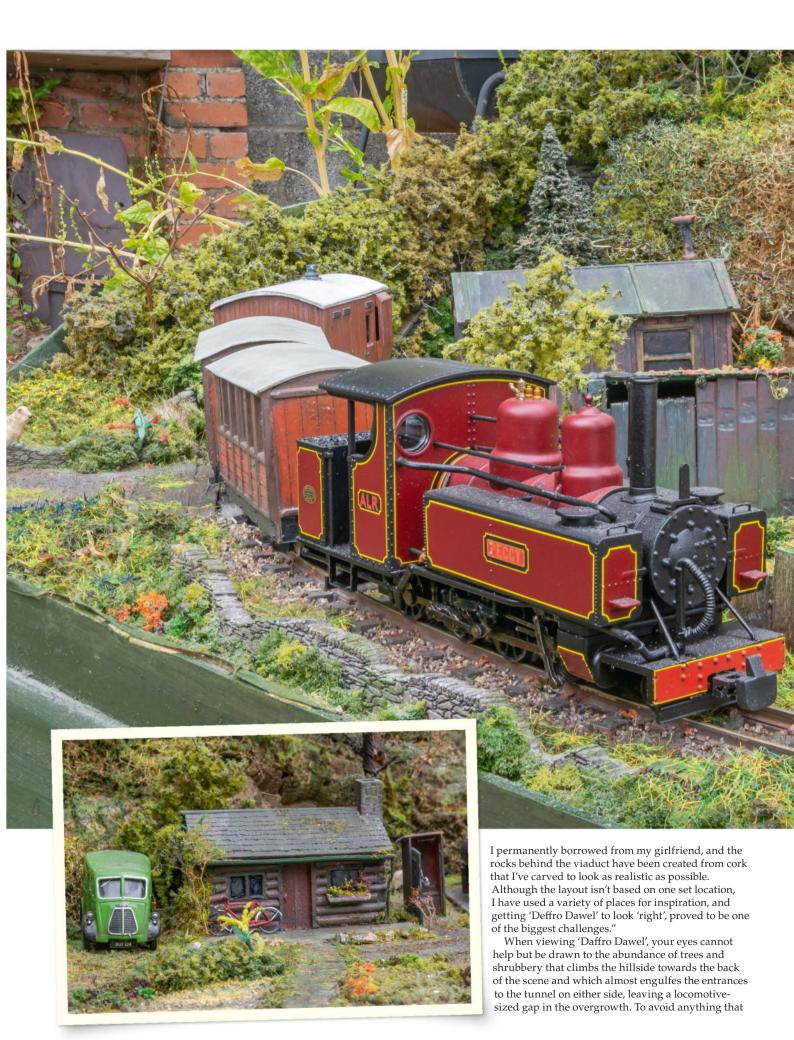
### ALL ABOUT THE DETAIL

It's well documented how smaller layouts allow the modeller to spend a lot more time on the details to make sure that every area looks as close to the real thing as possible. Ian has spent a long time making sure that 'Deffro Dawel' falls into that category, while at the same time not taking himself too seriously.

"There are two mermaids in the river and the Grim Reaper is waiting on the bank for the shirtless man to fall in. That area has almost turned into the fantasy zone! The river itself has been made from nail varnish

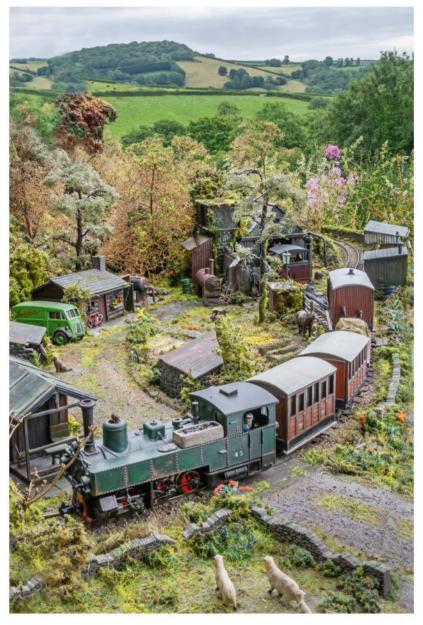


### '009' GAUGE LAYOUT **DEFFRO DAWEL**



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looked too uniform, Ian used trees of as many types and from as many manufacturers as possible.

"Every tree looks different, and I wanted to achieve

"Every tree looks different, and I wanted to achieve the same look on the layout, so mixed some seafoam with off-the-shelf trees from a variety of sources, as each one makes different sorts. I also added bits of real trees from my garden and to achieve a colour variation sprinkled several colours from the Woodland Scenics range as I didn't want it all to be green. The result is a really thick overgrowth that has taken over not only the landscape but also the surrounding infrastructure, with a water tank covered in moss and a shed that is going to look the same before too long."





Ian doesn't have to look far for inspiration as he can see the railway from his house, and has learned that the smaller the detail appears to be, the bigger the impact it has on the scene.

"There's an abundance of detail at 'Deffro Dawel' that you probably wouldn't miss if it wasn't there, but when you add a small bucket to the side of the shed or a rusting wheel thrown haphazardly into the undergrowth it really adds to the scene. It's amazing just how much junk there is around the railway that you can add to a layout! Adding the details is the area of model railways that I enjoy the

most and I've tried to add as much detail as possible to make up for the lack of operation. Mission accomplished, I think."

With no fewer than eight completed layouts in his home and a ride-on railway in his garden, it's no surprise that Ian is skilled in detailing a layout in all scales, even if keeping the plants alive is more work than the plastic trees at 'Deffro Dawel'. In just one month he has turned a friend's unwanted piece of scrap wood into a stunning scene that you can't take in all at once. One thing's for sure – you'll want to come back to these pictures a few times to see it all!

The plethora of planting effects is enhanced by lan's decision to include actual foliage from his garden (which, coincidentally, also houses a ride-on railway, pictured right with 'Deffro Dawel' for scale)

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# FACTFILE: 'DEFFRO DAWEL'

**Gauge and Scale:** 4mm:1ft, 9mm gauge, 'OO9'

Size: 3ft 1in by 19in

Track: Peco 'OO9' Flexitrack

Power and Control: DC and DCC

Time to build: One month



# MODELLER CV: IAN ARKLEY

"I was a freight driver for EWS and DB Schenker for 18 years, which certainly helped with the scenery, as I saw a lot of it! I play in three bands, which I've done for more than 30 years, and I collect records. I'm also interested in anything to do with the paranormal."

### UNT 'O **GAUG**

_	
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K310A LNER/BR A3 with Corridor tender£764.8	39
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LK760 Telephone boxes(2	£11.00
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7064 B.R 12ton Standard/Flat Van...

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W609 BR 20 ton Pig Iron wagon	£48.7
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PS31 BR 16 ton slope sided mineral		
PS32 BR 16 ton mineral (ex SNCF		
PS33 BR 8 Plank wooden mineral		
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# Reviews

In-depth and unbiased reviews of the latest products

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### How we test

At Model Rail, we pride ourselves on the quality, thoroughness and unbiased nature of our reviews. We assess models on their looks, performance, features and value for money. We also run them on our own test tracks, which feature various gradients and numerous challenging track configurations.





# Ellis Clark Trains Wickham Type 27 trolley

◆ GAUGE 'O' ◆ MODEL Ellis Clark Trains • E1022Z Wickham Trolley and Trailer, black with 'wasp' stripes • E1016S Wickham Trolley and Trailer, BR maroon with DCC sound

◆ PRICE £150.00 (£280.00 DCC sound) ◆ AVAILABILITY Ellis Clark Trains Tel 01756 701451 Web www.ellisclarktrains.co.uk

hey've taken a couple of years to arrive, but Ellis Clark Trains' Wickham Trollies are now here and will, no doubt, be adding charm to many a 7mm scale layout in the coming months.

The model's handbook suggests that these may be the smallest self-propelled ready-to-run models in 'O' gauge, and I'm not one to argue. They're certainly tiny, and the models are completely dwarfed when sat beside a Type 3 or Type 4 main line diesel!

Emerging in the late 1940s, Wickham's motorised trolleys helped to mobilise track gangs, offering great savings and convenience to railway operators. Hundreds were built and operated in Britain and abroad, with examples remaining on BR's books into the 1990s. Powered by Ford car engines, which were cheap to maintain, they allowed permanent way staff to patrol wider areas and perform light maintenance in far-flung areas.

It's a great choice for a RTR
'O' gauge model, providing
something a little special and
appealing to those of us with very
limited room. Perhaps we'll see
a few tiny 7mm scale layouts
emerging, based purely around
this little locomotive...?

Offered in a variety of liveries that cover their entire British Rail careers, with regional colours and later high-visibility schemes, each motorised trolley comes supplied with a twin-axle trailer, in a complementary

colour scheme. Extra plank-sided and flat-bed trailers are also available separately.

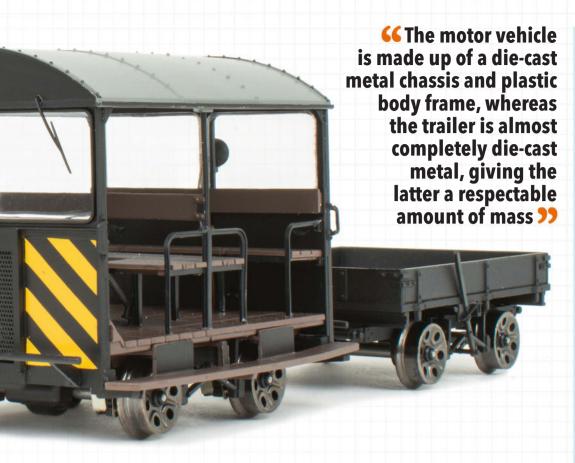
Supplied for review is an un-numbered trolley in black with 'wasp' stripe ends, which is a depiction of the preserved unit that resides at the Mangapps Railway, plus a BR maroon version numbered B14W, complete with DCC sound installed. Each model is packaged beautifully, in a sturdy foam-lined box and the Mangapps black version is accompanied by a limited edition certificate.

First impressions are entirely favourable - these are really very cute. And yet they're more than a mere novelty, with an impressive amount of detail and engineering knowhow invested into the design. The interior is reproduced in its

entirety, with no 'false' floor concealing a bulky mechanism. Instead, a low-profile coreless motor - just 9mm in diameter - sits below the floor and powers both axles via twin worm gear outputs.

We'll come back to the mechanical and electrical elements shortly, as the cabin interior is one of the highlights, with bench-type seats made up of individual slats atop a 'steel' framework made up of injection-moulded plastic components. The driver's position features throttle and clutch pedals, plus gear stick and handbrake lever arranged close to the engine enclosure, while the small console is adorned with dials and gauges.

The glazing is neatly installed, with no unsightly excess material



visible on the inside of the cabin and small wire handrails are installed at each corner of the canopy frame. On the outside, a single wiper is installed on the driver's windscreen and a headlamp is mounted between the twin panes of 'glass'. These lamps illuminate to match the direction of travel, emitting a realistic warm glow. They even dim slightly when the engine is being cranked on the DCC sound-fitted version!

Fine etched grilles cover the engine's radiator cover, while the outboard step boards and bumper rails are well executed. A set of folded side curtains is supplied in the detail bag.

At the rear, non-driving end, a coupling bracket allows the trailer to be hooked up using a pivoting rigid bar, allowing for propelling as well as hauling moves. The trailer is equally good, with excellent surface relief and realistic handbrake equipment. The motor vehicle is made up of a die-cast metal chassis and plastic body frame, whereas the trailer is almost completely die-cast metal, giving the latter a respectable amount of mass.

Both vehicles feature the same metal wheels and axles, which rotate freely and the motor unit includes coil spring detail on the

inside axleboxes, just visible when viewing the model head-on. Bright metal power collection strips run along the chassis and axleboxes and these would benefit from a dab of black paint to reduce the glare.

### ON THE RAILS

The motor trolley is rather light, but both samples ran well under test. The analogue version was a little jerky to begin with, but half an hour of running-in - in both directions - made a huge difference. The motor may be tiny but it's responsive and coped with hauling the supplied trailer without any issues.

Extra mass will be helpful and almost 30g of additional ballast. Each set provides five figures, plus a handful of essential track maintenance tools and they're created and painted by the folks at Northumbrian Painting Services. A choice of packs is





Working directional headlamps, with an authentic warm glow.



Front-end detail: finely etched radiator grille and super-fine wiper blades.



Trailers are also available separately, so multiple vehicles can be hauled.

available to suit different BR eras and they're priced at £45.00 each.

The short wheelbase will invariably mean an increased risk of stalling over point and crossing frogs and there's no facility for power transmission between trailer and motor unit. It shouldn't be too difficult to improvise such a system, if you deem it necessary. My 'O' gauge test track features just a couple of points and. provided the track and wheels were clean, no significant issues were encountered.

The DCC sound-fitted version provided extra fun, with a convincing array of engine >



### **Reviews**

### Ellis Clark Trains Wickham Type 27 trolley - in detail



# Factfile: Wickham Type 27 Inspection Trolley

Wickham's motorised inspection trolleys were built in their hundreds, for a wide range of worldwide customers, with the Type 27 first appearing in 1948 as part of an order for Nigerian Railways.

A year later, the Western Region of British Railways began acquiring a fleet of Type 27A trolleys, equipped with a 10hp Ford petrol engine and constructed at Wickham's Hertfordshire works. The trolleys were subsequently moved to other BR regions over the years, with examples continuing in service well into the 1990s, albeit in modified form.

Various private owners, the British Ministry of Supply and even the Royal Engineers also purchased Type 27 trolleys, many of which also ended up on Britain's railways over the years.

One set of controls were installed, with a synchromesh gearbox providing smooth operation and easy driving characteristics. Designed to allow track gangs to travel quickly and easily to locations along rail routes, for regular maintenance and inspection duties, provision was made to haul up to two small trailers on which tools and equipment could be carried.

Open-top versions were constructed for use abroad, but BR's versions all featured canopies, with side curtains to protect staff from the elements. However, as the curtains had to be fastened from the outside, they were not always



This Wickham trolley sports the 1980s-era livery of all-over yellow and pale roof. The side curtains could be folded down to provide a modicum of protection for those inside. CHRIS LEIGH

used while the trolleys were in transit.

A crew of eight could be accommodated, including the driver, and the motor trolleys were light enough to be moved on and off the track by a handful of men. Furthermore, a compact portable turntable could be employed to rotate the vehicle to face the required direction of travel.

The only form of braking consisted of hand-operated wood blocks bearing against the metal wheels, which were not particularly efficient in wet weather!

# System **builder**

Other items to complement this model...

#### **LINESIDE SHED KIT**

Due into stock just after we closed for press is this highly detailed, laser-cut kit of a typical dual lane shed for a Wickham trolley and trailer. With a footprint of about 165mm by 85mm, it's an ideal lineside addition.

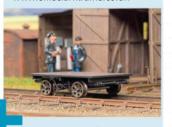
**Price:** £45.00 **Availability:** Ellis Clark Trains *www.ellisclarktrains.co.uk* 



### **EXTRA TRAILERS**

Add a little variety with a separate flat-bed trailer, designed to couple to the Wickham trolley. It would also look good posed in a siding laden with p'way equipment.

**Price:** £28.00 **Availability:** Ellis Clark Trains *www.ellisclarktrains.co.uk* 



### **3D-PRINTED CREW**

An alternative to the cast metal crew offered by Ellis Clark Trains is this set of three 3D-printed workers, designed especially to fit within the Wickham trolley (pack 11180-043). A crew bag and an array of tools is also provided – all you need to do is paint them.

Price: £25.00 Availability: Modelu www.modelu3d.co.uk









### FACTFILE: ELLIS CLARK TRAINS WICKHAM TYPE 27

Manufacturer: Ellis Clark Trains Ref. Nos. E1022Z, E1016S Unit Nos. Un-numbered/B14W Scale/gauge: 1:43.5 scale, 'O' gauge **Body:** Plastic with metal parts Chassis: Metal with plastic parts Weight: 57g (trolley), 35g (trailer) Min. curve radius: 3ft/910mm Wheel back to backs: 28.9mm

DIMENSIONS	PROTOTYPE	1:43.5 SCALE	MODEL
Length (over body)	8ft 0in	56mm	57mm
Height	7ft 0in	49mm	49mm
Width (over body)	5ft 6in	38mm	39mm
Wheel diameter	1ft 6in	10mm	9.4mm
Wheelbase	3ft 8in	25.5mm	26mm
			•

How to dismantle: Body unscrews from chassis Where to oil: Axle bearings - see instructions

### **ELECTRICS**

Electrical system: 12V DC two-rail Motor type: Coreless Lights? Directional headlamps DCC-ready? Next18 interface

### MECHANISM

Drive system: Motor drives both axles via worm gears Flywheel(s): No Traction Tyres: No

cranking, starting and running tones. Other sound functions include flange squeal, coasting, brake application and the clickety-clacking of traversing jointed rail. I also liked the incidental sounds, which will suit a stationary trolley beside a work site, with bird song and distant dog barks accompanied by the voices of the track gang, including warning of approaching trains.

As well as a sound decoder and speaker, this model also features a stay-alive unit, which did provide enhanced mechanical performance, reducing the risk of stalling, while insuring against interruption to the sound files.

The main circuit board and Next18 DCC interface is located beside the motor, crammed below floor level, and gaining access to the workings is a little fiddly, despite clear instructions being provided. With very little room under the floor, great care is needed to route the cables into the moulded recesses, keeping them clear of moving parts and safe from harm. On the sound-fitted model, the speaker and stay-alive unit are mounted within the engine enclosure.

Incidentally, the sound-fitted Wickham can also operate effectively on DC systems, albeit without the same level of control. However, it is possible to have the engine idling sounds while the vehicle is stationary.

These are wonderful models and they've already proved popular with customers wanting something unusual for their layouts. Priced very competitively, they're certainly a tempting option for modellers looking to dip their toes into 'O' gauge. With a full crew aboard, there's no denying that the sight (and sound) of a Wickham pootling around with a trailer or two in tow is hard to resist. (GD)

### **SUMMARY**

### **PROS**

- Looks and level of detail.

  - High-quality finish. Performance,
  - especially on DCC. Authentic sounds (DCC sound version).

### CONS

Not a lot.

### **FINAL VERDICT**

Fantastic.



# Bachmann MXA 'Lobster'

◆ GAUGE 'OO' ◆ MODEL Bachmann Branchline 37-830A DB Cargo MXA 'Lobster' wagon ◆ PRICE £57.95 ◆ AVAILABILITY Bachmann stockists Web www.bachmann.co.uk

he first MXA 'Lobster' wagon appeared in January 2016, as the pioneer of a sizeable fleet of ballast and spoil carrying vehicles. Rebuilt from redundant BDA/BEA 'Bogie Bolster D' wagons, the MXAs featured open box bodies bolted to open-framed chassis.

Conversions took place at Axiom Rail's works near Stoke-on-Trent, on behalf of DB Schenker (now DB Cargo) and the prototypes can be seen at work across the country on DB's various Network Rail infrastructure contracts.

Bachmann announced its 'OO' version of the MXA earlier this year and two versions are now available, both in the bright red DB livery and sporting individual numbers. With the BDA bogie wagons added to the Bachmann range in 2008, I wondered if this new model would make use of part of the original tooling, just like the real thing.

To Bachmann's credit, close inspection reveals that only the bogies, air brake gear and buffers

have been reused, with the rest of the MXA being completely new. Moreover, the chassis is far superior to that found on the BDA, with greater definition in the trussing and brake gear, while the outer faces of the solebars are equipped with an accurate array of rivet and bolt heads, brackets and plates.

Another welcome feature is the open nature of the frames, which is visible below the box body and is a vital characteristic of the real vehicles. The box itself looks the part, with a convincing representation of the outer strengthening ribs and securing brackets, and all key dimensions appear to have been scaled down correctly.

As mentioned, Bachmann's existing bogies are employed, with NEM coupler pockets fixed to the frames. Perhaps some modellers might have expected pivoting close-coupler units mounted to the chassis, as is becoming the norm on longer vehicles. If this was the case, the equipment would ruin the open nature of the frames, so the



bogie-mounted couplers are something of a blessing.

The level of finish is superb, with all printed legends on the solebars and the DB logos being printed to a very high standard. A pair of plastic brake hoses is supplied as optional fittings to each headstock.

The MXA 'Lobster' is a welcome addition to the canon of contemporary infrastructure wagons, making for an ideal companion to a Class 66 in DB or ex-EWS livery, while I've seen them hauled by the odd Freightliner 'Shed' too. (*GD*)

### SUMMARY

### **PROS**

- Detailed underframe.
  - First class finish.
  - Useful modern prototype.

### CONS

Not a lot.

### FINAL VERDICT

Excellent.



# **Hornby Class 87**

◆ GAUGE 'OO' ◆ MODEL Hornby R30031 Class 87 87009 City of Birmingham ◆ PRICE £217.99 ◆ AVAILABILITY Hornby stockists Web www.hornby.com

odels of AC electric prototypes seldom garner the same level of attention as diesel or steam traction, but Hornby's Class 87 is certainly one of the Margate company's best locomotives. Combining a top-notch overall profile and an impressive level of detail, the current tooling – introduced in late 2018 – really captures the character of BR's 5,000hp express locomotives.

Originally announced as part of Hornby's 2021 programme, the latest '87s' only arrived towards the end of last year, with 87009

City of Birmingham being offered in original InterCity livery, along with 87006 City of Glasgow in experimental dark grey with large double-arrow logos.

Delays are inevitably frustrating, but during that time Hornby did manage to upgrade the original specification to include a 21pin DCC interface (replacing the old 8pin socket), thus bringing a greater degree of functionality for digital users.

Under review is 87009 in the livery introduced in the early 1980s, which is my preferred version of the InterCity scheme. The '87s' were stalwarts of West Coast Main Line express passenger services from the mid-1970s until the early 2000s, although I can also recall InterCity-clad '87s' on air-braked freight traffic in the late 1980s.

Hornby's tooling remains unchanged from the 2018 release and, half a decade later, it still looks the business. In terms of livery application, there are a few minor imperfections visible: the yellow lacks opacity in a few areas and there's a discrepancy in shade and sheen with the red stripes on each cab door. That aside, the overall finish is impressive.

A set of bufferbeam hoses is supplied for customer fitment,

along with a pair of printed metal nameplates to add extra relief. The attractive plastic pantograph is poseable and the skew-wound, five-pole motor provides super-smooth performance and impressive haulage power. Installing a DCC decoder is straightforward, as the body unclips from the chassis to reveal the main circuit board atop the chassis. However, the PCB must be unscrewed and flipped over, as the DCC socket is mounted on the underside.

Incidentally, the combination of the livery and multiple working equipment on the cab ends places this rendition of 87009 in the 1986-1989 period, prior to the application of the 'Swallow' version of InterCity around 1990.

Modellers of the colourful 'Sectorisation' era of British Rail will therefore find it perfect.

As with other previous upgrades of existing models, it's good to see that the '87' has also received a superior DCC specification. And late 1980s-era liveries are always welcome! (GD)

### SUMMARY

### **PROS**

- Looks and performance.
  - Era-specific details.
    - Upgraded DCC provision.

### CONS

Not a lot.



Fantastic.

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# KR Models BR 'Palbrick' wagon



◆ GAUGE 'OO' ◆ MODEL BR Palbrick B wagon three-pack ◆ PRICE £60.00 ◆ AVAILABILITY KR Models stockists Web www.krmodels.net

ager to retain traffic in new bricks, particularly the pallet traffic in furnace bricks for industry, BR set about producing a fleet of 1,420 specialised wagons for easy loading and unloading of palletised bricks. There were a number of versions of the wagon, code-named 'Palbrick', to suit the various sizes of pallets employed. Later examples had clasp brakes and roller-bearing axleboxes and were classified 'Palbrick B'.

Received for review from Edmonton, Alberta-based KR Models is a pack of three 'Palbrick B' wagons. Being unfamiliar with the prototype, I consulted Paul Bartlett's website (paulbartlett. zenfolio.com). This is a vital resource for rolling stock information and photographs, but you do need to understand what you are looking at. It appears that the body of the model is probably based on Paul's photograph of 'Palbrick B' No. B462073, though the model chassis reflects one of the later examples fitted with roller-bearing axleboxes and clasp brakes.

The chassis of the model comprises a well detailed moulded plastic unit featuring the solebars, axleguards and headstocks, surrounding a metal baseplate which provides a mounting for the

sprung NEM coupler pockets. These are mounted on a cam arrangement which allows them to extend on curves and avoid, to some degree, the 'coupled miles apart' look which afflicts many wagon models fitted with tension-locks in NEM pockets.

The body of the model is a plastic moulding. The sides, like those of the prototype, are flat and devoid of detail, save for the two pairs of slots which enabled a forklift truck to lift the sides clear. Internally, the sides are similarly free of detail and the floor is depicted as planked. The two clamping beams are nicely depicted but, like the ends, are finished in matt black.

The ends of the body differ in that one has a simple six-plank arrangement while the other has a system for clamping the pallets in place. This varied between wagons, apparently, some having two, four, or six four-pronged screw-handles which moved the end beams in a vice-like process to hold the loaded pallets in place.

The model reflects a vehicle with four screw-handles controlling two end beams, and these screw handles are really exquisite mouldings. However, like the triangular end stanchions which support them, the screw-handles on the model are

finished in black. Photographs show the end stanchions in the body colour - bauxite - and the screw-handles in white, which was the standard colour used by BR on all such controls.

Why KR Models has chosen to finish the wagon ends in black is unclear. In the photograph of B462073 the ends are blackened with dirt but the area around the number has been cleaned to show the bauxite paint quite clearly.

Modellers who wish to do so will need to repaint the

ends and replace the numbers with decals, which is a pity as the printed work on the model is particularly good. Indeed, the Ashford works plates on the chassis are neatly printed, though the accompanying numbers differ from those carried on the body!

The blackened metal three-hole disc wheels have pinpoint axles running in the plastic axleboxes. These are extremely free-running, such that most of this review was written with the wagons upside-down to prevent them running off the desk!

The representation of brake gear has some fine detail but seems a little lacking in any arrangement to operate the brakes on one axle. The brake cylinder is finished in light grey, which is odd until one realises it is

a misinterpretation of the lighting in Paul Bartlett's photograph.

This is a nice little model at a very keen price by current standards. But it is let down by misinterpretations of the very details the wagon connoisseurs would appreciate. This is disappointing, and may just put those connoisseurs off parting with their cash. (CJL)



### PROS

- Desirable prototype.
- Sturdy and well made.
- Some very fine details.

### CONS

Detail and livery inaccuracies.



Another 'curate's egg'



# Bachmann 'Polybulk' hopper

◆ GAUGE 'OO' ◆ MODEL Bachmann Branchline 37-428Z 'Polybulk' hopper wagon, Tiger/Nacco ◆ PRICE £79.95

◆ AVAILABILITY Rails of Sheffield Tel 0114 255 1436 Web www.railsofsheffield.com

he French-built
'Polybulk' hopper
wagons began entering
traffic in the mid-1970s,
with examples built into the
following decade. Designed for
cross-Channel and domestic
cargo flows, such as grain, china
clay pellets, urea and various
other loose materials, the
wagons offered an impressive
58-ton payload and a covered
hopper to keep the contents dry
and secure.

Bachmann Branchline's rendition of the 'Polybulk' scooped the 'OO' Rolling Stock prize in *Model Rail*'s Model of the Year awards of 2013, yet the model has been out of production for several years. Happily, Rails of Sheffield has commissioned an exclusive production run of the 'Polybulk', in two different liveries, and we have the green/grey Tiger/Nacco version under review here.

Despite being a decade old, Bachmann's tooling remains impressive. Indeed, it still deserves a place among the best 'OO' freight wagons of the later BR era, with a wonderful array of separately fitted detail fittings adorning the body and chassis. The fine plastic

handrails are fairly forgiving of handling and the etched mesh walkways add extra finesse. The moulded hopper operating equipment, including the toothed gear wheels, are excellent and there's plenty of 'plumbing' and smaller details to appreciate.

All of these individual components require careful assembly in the factory and this, along with the exclusivity of the production run, accounts for the model's 'premium' pricing.

Working across most of BR's freight network, these wagons were, thankfully, often seen in short formations - or even singly - within Speedlink services during the 1980s, so there's no need to amass a long rake for the sake of authenticity.

To match the high level of detail, the decoration is applied to an excellent standard, with the logos and various information panels all crisply rendered and fully legible.

Both livery options suit the 1980s and early 1990s scene and would look at home being shunted around a freight yard or marshalled within a mixed air-braked freight working behind diesel or electric traction.



It's great to see Bachmann's 'Polybulks' return to the market, especially for those of us who missed out on earlier production runs. It's also pleasing to have a different pair of liveries to choose from, compared to previous releases.

Considering the value of pre-owned 'Polybulks' in recent years, the price of these exclusive new wagons is not unreasonable. I, for one, couldn't resist treating myself! (GD)

### SUMMARY

### **PROS**

- Prototype fidelity.
- Excellent level of detail and finish.
- ImportantSpeedlink-era wagon.

### CONS ● Not a lot.



Still one of Bachmann's best wagons.



### **Reviews**



# Hornby DRS Mk 2e/f Coaches

◆ GAUGE 'OO' ◆ MODEL • Hornby R40330/R4033A Mk 2e Standard Open coaches • R40331/R40331A Mk 2f Standard Open coaches

◆ PRICE £44.99 each ◆ AVAILABILITY Hornby stockists Web www.hornby.com

ornby's range of air-conditioned BR Mk 2 vehicles offer a great balance between realism and affordability. At just over £40 each, they're perfect for budget-conscious modellers. Sure, it would be nice to have sprung, close-coupler units rather than bogie-mounted NEM pockets, along with a few extra fiddly bits on the underframe and wire handrails. In the main, though the overall level of detail is pretty good.

Some of the latest releases in the Mk 2 family consist of a handful of coaches in the fetching livery of Direct Rail Services. The Mk 2e and Mk 2fs have been a staple of locomotivehauled passenger services over the past couple of decades, covering for shortages of diesel multiple units with franchisees such as Northern Rail and Greater Anglia. Anyone who enjoyed Class 37 haulage around the Cumbrian coast or jaunts to Great Yarmouth from Norwich, during the 2010s, would not have complained, as the level of comfort offered by an 'air con'

Mk 2 is far superior than

a Class 153/156/158 DMU!

Usually top-and-tailed by DRS Type 3s or, on occasion, Classes 47/57/68, some services also ran with Mk 2f Driver Brake Second Open (DBSO) cars at one end. However, these often proved unreliable, as I can personally attest!

In all, Hornby has produced five DRS-liveried coaches, across Mk 2e and Mk 2f vehicle types, all of which are offered in SO (Standard Open) format, and we received two samples of each sub-type. Incidentally,

a DRS Mk 2f BSO (Brake Standard Open) has been offered by Hornby in the past.

Slight differences are discernible between the Mk 2e and Mk 2f types, most notably in the different underframe

equipment carried between the B4 bogies. All are turned out in the 'Compass' style of DRS livery and the overall level of finish is high, with an even coating of paint and very clean demarcations between colours.

The main dark blue shade looks right, as does the lighter blue on the doors, while the graded transition of the

horizontal stripes is very smooth - an impressive feat for what appears to be tampo-printed colours. That said, the blue turns a little too green at the 'Compass' end of each stripe.

At each end, the printed legends are crisply applied, with even the smallest type on the data panels legible. The door lock lights are printed and differ in size between the Mk 2e and Mk 2f versions (as per the real thing) and the bogies and underframes are also adorned with various warning symbols and embellishments.

The coaches run extremely well and the alternative sets of magnetic couplers, provided with each model, greatly improve the appearance and offer reliable operation. They certainly look great behind matching DRS heritage traction! (GD)



### **SUMMARY**

- Excellent finish.
- Decent level of detail.
  - Budget friendly.
- Popular modern livery.

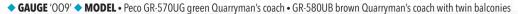
### CONS

Modest specification.



**Great stuff!** 

# Peco narrow gauge Quarryman's coaches



• GR-590UB brown Quarryman's coach with balcony ◆ PRICE £32.50 each ◆ AVAILABILITY Peco stockists Web www.peco-uk.com

Initially released last year (MR308), Peco's Ffestiniog Railway narrow gauge Quarryman's coaches proved extremely popular with 'OO9' modellers. A further production run has recently added greater choice for modellers, with coaches now offered in plain liveries without branding or numbers.

As previously, the quality of assembly and finish is impressive and the roofs are a simple push-fit, allowing for simple enhancement of the interiors. The axles run smoothly and the coaches look great trundling along behind a narrow



gauge steam locomotive.

There are three vehicle types to choose from, including original Quarryman's coach condition, with side doors and three windows. Alternatively, the brake van conversions are offered with single or twin balconies and end doors, making them useful for bringing-up the

rear of freight as well as passenger trains.

Peco kindly supplied a representative range of samples, in generic brown and green liveries. Each vehicle is available in either colour and they're perfect for freelance narrow gauge railways in pre or post-preservation eras. (GD)

### **SUMMARY**

- Paint finish and build quality.
- Smooth running.Useful for
- freelance modellers.
- Made in England.

### CONS

 Modest level of fine detail.



Lovely.

# Bachmann Scenecraft Contemporary GWR-style Platform Shelter

◆ GAUGE 'OO' ◆ MODEL Bachmann Scenecraft 44-001X Contemporary GWR-style platform shelter ◆ PRICE £34.99 ◆ AVAILABILITY Kernow Model Rail Centre Tel 01209 714099 Web www.kernowmodelrailcentre.com

One of the great success stories of the modern railway has been the revival and uplift in passenger numbers of those West Country branch lines that escaped the Beeching closures. In particular the Cornish branches to Newquay, Looe, St Ives and Falmouth and the (mainly) Devon branch to Gunnislake are attracting record passenger numbers.

That success has been due, at least in part, to some upgrades which have reversed the

run-down and neglect of the Beeching era. One of those improvements, under the auspices of Network Rail, has been the construction of attractive, modern brick-built waiting shelters to replace life-expired halt shelters and the austere glass bus shelters erected by post-Beeching BR.

Camborne-based Kernow Model Rail Centre has commissioned Bachmann Scenecraft to produce a 'OO'

model of one of these distinctive shelters as an exclusive product. As one would expect from Bachmann Scenecraft, the shelter is a resin casting comprising the walls and roof. The three columns and the seat are separate and require fixing in place by the modeller. Indeed, the columns are very slender and would be vulnerable, even in the level of polystyrene packaging supplied.

The columns are a butt joint to the roof beam of the shelter but

flat locating points are provided and fitting the columns with cyanoacrylate (Superglue) proved easier than expected. You just have to ensure that they are vertical from both front and side views, and that all three are aligned.

The brickwork is nicely coloured and the mortar lines are well defined, while the underside of the awning includes the detail of beams and rafters.

The traditional wooden valancing around the awning is part of the resin moulding and

inevitably this is a bit on the thick side, but it's not apparent from normal viewing angles. This is a delightful building which will be ideal for those seeking to include a small station (they aren't called halts these days) on a modern layout. You could stretch a point and use one as a waiting shelter on a GWR-era station, too, as they are similar to those provided by the original GWR at some smaller stations. (CJL)

### **SUMMARY**

- Fine detail.
- Really captures 'the look'.
- Superb quality of finish.
  - CONS
  - Not a lot.

**FINAL VERDICT** 

**Great!** 



# Modeller's bookshelf review special

**Nick Brodrick** and **George Dent** present a range of new books aimed at modellers and general enthusiasts alike.

### 'Castle' trawls

A lot of attention is currently focused on the 100th anniversary of famed Gresley 'Pacific' *Flying Scotsman*, but there is also the centenary of the GWR 'Castle' class to celebrate.

David Maidment's new book is a timely one then.

Plenty has been written about these superb locomotives in countless books, but seldom in such detail about their final years. Indeed, as a former Western Region employee (and later senior manager), the author is a veritable authority on the subject, having travelled behind all but 15 of the 171 'Castles'. For a time, he maintained their record cards at Old Oak Common, and even recommended which should be sent to Swindon Works for overhaul.

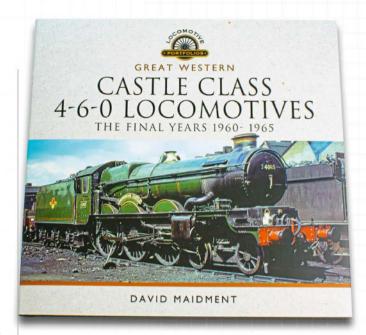
A traffic apprentice, he would ride on 28 of the class, and this alone provides a valuable insight

into the class' performances. It is in the operation of the 'Castles' that the majority of the text focuses on in lively and entertaining fashion, supported by allocation details and timing logs.

Although not ostensibly an academic study of the detail differences between each locomotive, variations are explored in useful detail through picture captions (plus the listing of each locomotive in the Appendix does usefully record when double chimneys were fitted).

The main text section is generously illustrated with black and white scenes, while a third of the 180 printed pages are dedicated solely to colour photographs.

Brought together, this makes for an invaluable record of the 'Castles' final flourish. The



author's royalties have been donated to The Railway Children charity. **(NB)** 

**Book:** Castle Class 4-6-0 Locomotives - The Final Years 1960-1965, by David Maidment OBE (Pen & Sword) Price: £30.00 Availability: www.pen-and-sword.co.uk

### Life of the 'Prairies'

**GWR LOCOMOTIVES** 

THE PRAIRIES

ALIEN JACKSON

The 2-6-2T ranks as a particularly successful type on the Great Western. Plenty has therefore been written about the 'Small' and 'Large Prairies'

and therefore you might not expect this book to be able to add much.

Actually, Allen Jackson has managed to do so by focusing on the locomotives' sphere of operation. An extensive table, covering 32 pages(!), details

what you'd imagine is the most comprehensive single record of 'Prairies' based on individual sightings.

For example, one states that on July 28 1951 No. 4555 was captured at Friog on a Manchester to Pwllheli running towards Barmouth with a rake of mixed corridor coaches. It even provides a book reference for where the image was published.

Furthermore, there is a cross

reference to a series of track diagrams that pinpoint exactly where on the GWR/Western Region system the locomotive was recorded.

For the more casual observer, the book ends with a smattering of archive views ranging from the first built

'Prairies' in the early 1900s through to their 1960s BR swansong. (NB) Book: GWR Locomotives -The Prairies, by Allen Jackson (Amberley) Price: £15.99

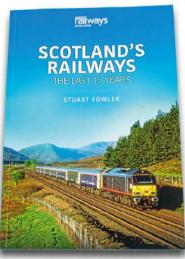
Availability: www.amberley-books.com

### Fifteen-in-one

A lot has changed on the railways north of the Border since the turn of the century: semaphore signals have been pulled down in favour of colour lights; electrification has spread; and new railways have opened to Alloa, Bathgate and Tweedbank. There's also been a sizeable shake-up of rolling stock: shortened HST sets have arrived for final inter-city flourish and sleeper trains have gained all-new Mk 5 carriages.

Plenty then for author and photographer Stuart Fowler to get his teeth stuck into for this album covering the 15-year period between 2005 and 2020, with almost every conceivable type of train (45) featured. This ranges from humdrum 'Voyagers' and '380s' to Class 37-hauled railtours and preserved steam railways.

Divided by regions (South East, North East, Highlands, Central and South West), this is a neat little album that will provide plenty of prototype inspiration. The standard of images is very good and informative, detailed captions are welcome. (NB) Book: Scotland's Railways - The last 15 Years, by Stuart Fowler (Key Books) Price: £14.99 Availability: www.pen-and-sword.co.uk



## **Industrial** grit

Until not that long ago, industrial railways were once treated as a niche modelling interest by mainstream manufacturers. The relative explosion in the number of non-main line locomotives, and increasingly wagons, in

ready-to-run 'OO' has given life to a raft of new projects.

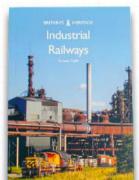
And yet, industrials are still something of a dark area for even those who might have indulged in the odd 4mm Peckett or Kerr Stuart tank engine. Anthony Coulls, curator and historian at the National Railway Museum, takes us through a condensed history of their evolution in Britain. Helpfully, this sets out by answering what an industrial

railway actually is before indulging in an overview of how the hugely eclectic types of motive power have evolved over the past two centuries. There's room too for the all-important, but often overlooked, wagons, as well as

an appraisal of the current scene from the scant remains in commercial use to the mass of equipment in preservation.

It is the latter from which Coulls has drawn most of his photographic material, resulting in a colourful thumb through this fascinating interest. (NB) Book: Industrial Railways, by Anthony Coulls (Amberley) Price: £9.99 Availability:

www.amberley-books.com



# **Charitable inspiration**

It was one of the most shocking events to ever strike the usually serene world of modelling. On May 18 2019 the Market Deeping Model Railway Club cancelled its annual exhibition, which of itself

wasn't especially noteworthy. But the reason for it was.

Vandals had broken in overnight and wrecked the entire collection of visiting layouts, displays and trade stalls. In some cases, layouts built over several decades had been destroyed.

The devastating news travelled far, resulting in donations totalling more than £100,000 from well-wishers. This led to the establishment of a charity which aims to encourage new railway modellers, while helping to support other local charities and causes.

This practical step-by-step book is one of the

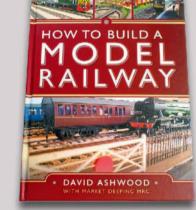
tangible results of that work, seeking to promote the hobby to new generations.

The format is familiar; discussing and illustrating how you can move on from the classic boxed train set to the dream layout. This it does in an upbeat fashion, and there's plenty to like about its approachable format. (NB)

**Book:** How to Build a Model Railway, by David Ashwood (Pen & Sword)

Price: £25.00 Availability:

www.pen-and-sword.co.uk



railways

HIGHLAND

RAILWAYS

## **Highland bling**

Diesels in the Highlands - it's a subject that will conjure all kinds of mental images...

For those with that particular leaning, there's

plenty to wallow in over the pages with 180 photographs carefully chosen to represent the array of traction to have graced the rails north of Perth, as well as the many famous locations that abound.

Chapters cover the Highland Main Line, Kyle of Lochalsh and Far North lines and, as you might expect, Class 37s are at the forefront of coverage. But there's plenty of early Class 26 and 27 action bookended by the contemporary Class 68s and 70s. Locomotives are the focus, but there is a healthy mix of photograph style, befitting the stunning scenery amid which

many are taken.

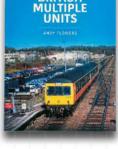
Perhaps the only thing that scores against this volume is that some of the pictures have reproduced darker than you'd imagine the vivid colours of the originals. That does not detract from the overall quality, which is sure to be appreciated by many. (NB) Book: Highland Railways, by Mike Wedgewood (Key Books) Price: £15.99 Availability:

Availability: www.pen-and-sword.co.uk

### **Multiple choice**

Multiple unit trains have dominated the UK rail scene for decades, and Andy Flowers' paperback provides a visual and textual record of the huge array of types operated from the early 1900s to the present day.

It's a fairly slim volume, but it contains plenty of



information concerning multiple unit development, beginning with steam-powered railmotors and ending with the Class 800 family of bi-mode units and Stadler's new 'FLIRT' platform.

BR's first and second generation electric and DMUs get plenty of coverage, including the experimental types, while the APT and HST aren't overlooked either. Each section provides a table detailing basic specs, build and withdrawal dates.

Virtually all images are in colour and depict a huge range of liveries. The images are captured across the network, ensuring excellent coverage, resulting in a handy reference book. (GD)

Book: British Multiple Units, by Andy Flowers (Key Books)

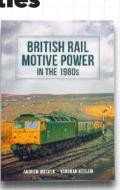
Price: £15.99

Availability:

www.pen-and-sword.co.uk

# Back to the Eighties

Rather a lot happened on Britain's railways during the 1980s, with mass withdrawals of many 'classic' diesel and electric locomotive types, closure of the Woodhead route, modernisation of freight traffic and widespread



'Sprinterisation' bringing a sharp decline in loco-hauled passenger services.

This photo album from Amberley presents a striking array of previously unpublished, high-quality colour images from a fascinating decade, capturing sights that would soon disappear forever.

Featuring subjects in urban and rural environments, most of the BR network is covered and, although the images seem to be arranged in random order, there are many gems in terms of composition and subject matter. (GD) Book: British Rail Motive Power in the 1980s, by Andrew Walker & Vaughan Hellam (Amberley)

Price: £15.99

Availability: www.amberley-books.com

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# '16XX' 0-6-0PT

22 VERSIONS TO CHOOSE FROM

### **Specification list**

Made by: Rapido Trains

Motor: Five-pole

DCC socket: Next18

Features: NEM coupler pockets, factory-fitted speaker, sprung buffers, firebox glow, 'Busby' spark arrestor chimney.



£149.00

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### **NCB GREEN**

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### **PRESERVED GREEN**

- ◆ MR-310A: Green early BR emblem, No. 1638
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- ♦ MR-301B: No. 1623
- ◆ MR-301C: No. 1624 ◆ MR-301D: No. 1657
- ♦ MR-301E: No. 1664
- ♦ MR-301F: No. 1658
- ♦ MR-301G: No. 1668 ◆ MR-302A: No. 1646
- **BR BLACK, EARLY EMBLEM**

### (WEATHERED)

- ◆ MR-302B: No. 1649
- ◆ MR-303: No. 1604

## BR BLACK, LATE EMBLEM (PRISTINE)

- ◆ MR-304A: No. 1636
- ◆ MR-304B: No. 1655

### **BR BLACK, LATE EMBLEM** (WEATHERED)

- ◆ MR-305A: No. 1627
- ◆ MR-305B: No. 1628

### **GWR GREEN**

◆ MR-306: GWR green No. 1638





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# LNER 'J70s'

SIX TO CHOOSE FROM

For immediate delivery!

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Made by: Rapido Trains

**Motor**: Coreless

**DCC socket**: Six-pin

**Features**: NEM coupler pockets, space for sound speaker, sprung buffers, removable cowcatchers,

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£127.50

£114.75 price for subscribers





MR-203 No. 68225, BR early emblem, no skirts



MR-204 No. 68226, British Railways lettering, no skirts



MR-206 No. 7128, LNER wartime livery, full skirts



MR-207 No. 8223, LNER post-war livery, full skirts



MR-208 No. 7126, LNER lined livery, no skirts



MR-210 No. 7139, LNER lined livery

### LNER Sentinels - the new batch NER 8172 MR-019 BR Class Y1 MR-020 BR Class Y3 MR-018 LNER Class Y3 MR-021 LNER Class Y1 Sentinel, No. 8172, Sentinel, No. 68144, Sentinel, No. 68162, Sentinel, No. 45, BR black, early crest BR black, early crest **LNER black with Gill Sans** LNER black with shaded lettering/numerals lettering/numerals

**Specifications** 

Made by: Dapol

**Motor**: Five-pole 'Super-Creep'

DCC socket: Eight-pin

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Roof ventilator



### **Specification list**

Made by: Bachmann/Kader

**Motor**: Three-pole

DCC socket: Six-pin

Features: NEM coupler

pockets, two types of cab,

different smokeboxes, different

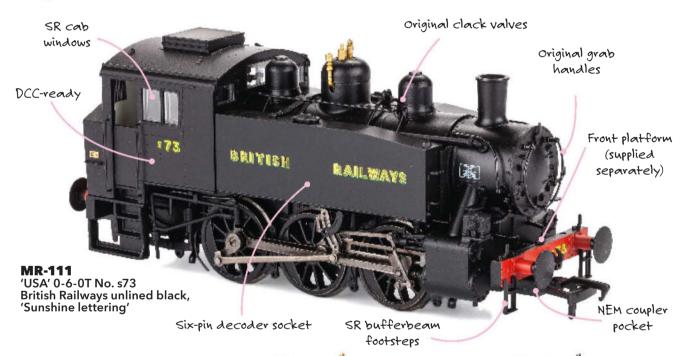
footsteps, separately fitted

hinged platform.

**MR-111** 

29,95

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### We've frozen the original 2017 price on these models

Our 'USA' 0-6-0Ts are beginning to sell out - order yours today!

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MR-101 No. 1968, USATC black



MR-108 No. 72, Keighley & Worth Valley Railway ochre



MR-107 No. 36, National Coal **Board black** 



MR-110 No. DS237 Maunsell, **BR** Departmental green

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# **Next Issue**

# A trip down to Dawlish Warren

We visit Chris Morris and his 'N' gauge 'Dawlish Warren', which is as impressive vertically as it is horizontally...

### 'Scotsman' centenary

As the world's most famous locomotive celebrates its 100th birthday, we look at how Flying Scotsman has changed over the years, with top tips for enhancing your models.



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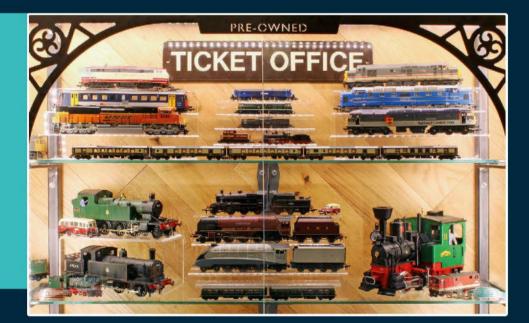


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# **Forthcoming Releases**

Your Guide to New Models Preorderable at Hattons Model Railways. Visit hattons.co.uk/directory for all the latest news & updates

## 00 Gauge Steam Locos



GER 'Buckjumper' 0-6-0T Due: Q2 2024 Price: from £139.99 Price: from £1 Digital: 18-pin



Hawthorn Leslie 0-4 Due: Q3 2023 Price: from £107.41 Digital: 18-pin wthorn Leslie 0-4-0ST

Class 43xx Mogul 2-6-0 **Price:** from £154.18 **Digital:** 18-pin



Class O2 Tango 2-8-0 Due: 04 2023 **Price:** Q4 2023 **Price:** from £186.15 **Digital:** 18-pin



LNER Class B17/5 4-6-0 Due: Q4 2024/ Q1 2025 Price: £188.99 Digital: 21-pin

LMS Turbomotive 4-6-2 Due: July 2023 Price: from £239.84 Digital: 21-pin



Metropolitan E Class 0-4-4T Due: Early 2024 Price: from £153 Digital: 18-pin

LMR 'Lion' 0-4-2 **Due:** Q2 2023 **Price:** from £152.96 Digital: 18-pin

LRSCR F1 0-6-0T Due: TBC 2023 Price: from £140.21 Digital: 18-pin

Class 15xx 0-6-0PT **Due:** Q2 2023 **Price:** from £127.50 Digital: 18-pin

HR 'Jones Goods' 4-6-0 Price: from £186.96

## **OO Gauge Diesel & Electrics**



Class 31 Due: Q2 2023 Price: from £169.99 Digital: 21-pin

Class 50 Due: 04 2023 Price: from £169.99 Digital: 21-pin

Class 66

# Due: Q1 2024 Price: from £169.99 Digital: 21-pin



Class 02 Shunter Due: Q4 2023 Price: from £143.65 Digital: 18-pin



Class 26/1 Due: 04 2023 Price: from £177.65 Digital: 21-pin

Class 47 Due: Q3 2023 Price: from £212.46 Digital: 21-pin Class 57



Class 57
Due: Oct 2023
Price: from £160.65
Digital: 21-pin Class 86/2 Due: Q1 2024 Price: from £216.71 Digital: 21-pin

N Gauge Multiple Units



Ruston 88DS Shunter Due: Jun 2023 Price: £102.59



Due: TBC Price: TBC Digital: TBC

s 153 Sprinte

Class 156 Super Sprinter Due: Q2 2023 Price: from £146.88 Digital: 18-pin

Class 221 Super Voyager

Due: 03 2023

Price: £213.78 Digital: 6-pin

Due: Q2 2023 Price: from £119.30 Digital: 18-pin

Digital: 6-pin

## 00 Gauge Multiple Units



W&M 4-wheel Railbus Due: Q3 2023 Price: from £169.15 Digital: 21-pin



GWR AEC Parcels Railcar Due: Sep 2023 Price: from £198.90

Class 104 Due: TBC 2023 Price: from £330.65 Digital: 21-pin



Class 755 FLIRT BIMU Due: 2023/ 2024 Price: £326.69 Digital: 21-pin

### OO Gauge Coaches & Wagons



oscole BR Mk1 Suburbans BR Mk2B & Mk2Cs



Due: Q2 2023 & Q1 2024 Price: £59.95 NER 20t Hope



Due: Q1 2024 Price: £84.95 (3pk) Digital: N/A SR 10 ton Ban Due: Q4 2023 Price: £84.95 (3pk)

Digital: N/A FNA-D Nuclear Flasks Due: Q3 2023 Price: £74.95 (2pk) Digital: N/A



14 ton Air Ministry Tanks Due: 03 2023 Price: £32.13 each Digital: N/A



.IHA P&D Hoppers Due: Q3 2023 Price: from £46.75 Digital: 6-pin (Taillamps)

GWR Toplight City Coaches Due: Q2 2023 Price: £55.08 each Digital: 6-pin GWR Churchward Auto Due: Q1 2024 Price: from £68 Digital: 21-pin



TCV Car Transporters Due: Q2 2023 Price: £194.65 (3pk) Digital: N/A



TTA Tank Wagons Due: Q3 2023 Price: £31.49 each Digital: N/A

YMO/ YMA Salmon Flats Due: Q2 2024 Price: £34.64 each Digital: N/A



Wisbech & Upwell Tramcar Due: Q2/ Q3 2023 Price: £63.71 Digital: N/A

**GWR B-Set Coaches** Due: Q2/ Q3 2023 Price: £63.71 Digital: N/A



Other Plank wagons due 2023/ 2024 from Rapido: GWR 5-plank Wagons, SR 8-Plank Wagons & RCH 1907 5 & 7-plank Wagons

GWR Toad Brake Van



Due: Q2 2023 Price: £33.96 Digital: N/A

SECR 6-Wheel Brake van also due in 2023

## Revolution



TEA 100t Tanks Due: Q3 2023 Price: £48.95 Digital: N/A

### N Gauge Steam Locos



LMS Class 2MT 2-6-2T Due: Q3 2023 Price: from £93.50 Digital: PCB Swap required

GWR 63xx Mogul 2-6-0



Due: Q1 2024 Price: from £156.06 Digital: 18-pin LNER Class B17 4-6-0



Due: Q3 2023 Price: from £128.52 Digital: 6-pin SR Light Pacific 4-6-2 Due: Q2 2023 Price: qz 2023 Price: from £189.98 Digital: 18-pin

Class 33 Due: Q3 2023 Price: from £127.46 Digital: 18-pin

Due: Q3 2023 Price: from £156.06 Digital: 18-pin

Due: Q2/ Q3 2023 Price: from £146.88

Class 66 (New Tool)

**Due:** Q2 2024 **Price:** from £146.88

Due: Q2/Q3 2023

Class 44, 45 & 46 'Peak' Due: TBC Price: TBC Digital: 18-pin

Class 59

Digital: 18-pin

Digital: 18-pin

Class 86

Class 43 HST (Updated)

N Gauge Diesel & Electrics

dapol

# N Gauge Coaches & Wagons



Mk3 Packs & DVTs Due: Q2 2023 Price: Prices vary Digital: 18-pin



Grampus Open Wagons Due: TBC 2023 **Price:** £16.48 each Digital: N/A



LNER Dynamometer Car Due: TBC 2023 Price: £84.95



Digital: N/A



SECR Freight Packs Due: TBC 2023 Price: £84.96 (4pk) Digital: N/A



SECR 10t Covered Vans Due: TBC 2023 Price: £59.46 (3pk) Digital: N/A

SECR 5 & 7 Plank Wagons Due: TBC 2023

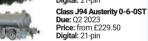
# Revolution

FNA-D Nuclear Flasks Due: Q3 2023 Price: £32.95 each Digital: N/A

# O Gauge Steam Locos



LSWR Class R4 0-4-0T Due: Q2 2023 Price: from £213.78 Digital: 21-pin



BR Standard 3MT 2-6-2T Due: 02 2023 Price: QZ 2023 Price: from £229.50 Digital: 21-pin



GWR Class 55xx 2-6-2T Due: TBC Price: from £512.33 Digital: 21-pin

# O Gauge Diesel & Electrics

### dapol



Class 08/ 09 Shunters Due: Q3/ Q4 2023 Price: from £195.50 Digital: 21-pin



Class 66 Due: TBC Price: from £308.30 Digital: 21-pin



Class 02 Shunter Due: Q3 2023 Price: from £330.65 Digital: 21-pin Class 37/0





Price: from £619.65 Digital: ESU XL Class 58 **Due:** Jun 2023 Price: from £619.65 Digital: ESU XL



Class 73 Flectrodiese Price: from £662.15 Digital: ESU L

## O Gauge Multiple Units



Due: 02 2023 Price: from £594.15 Digital: ESU L

## O Gauge Coaches & Wagons

## dapol



TTA Tank Wagons Due: Q2 2023 Price: £78.03 each Digital: N/A







Due: Q4 2023 Price: £86.29 Digital: N/A

HIA Aggregate Hoppers Due: TBC 2023 Price: £68





LMS Inspection Saloon Due: Q4 2023 Price: TBC Digital: 21-pin



SR CCT/ PMV Vans Due: Q1 2024 Price: from £211.65 Digital: N/A

35t Class B Tanks **Due:** Oct 2023 **Price:** from £105.40 Digital: N/A



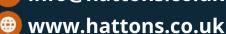


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OR76AR005 Class 415 Adams Radial 4-4-2T No.5 in East Kent Railway green (Oxf) (RRP £109.95)BARGAIN . . . . £74



R3986 Class 9F 2-10-0 92167 in BR Black late crest (Hor). . £228 R3987 Class 9F 2-10-0 92194 in BR Black Late Crest (Hor). . . . £228



R3991 Class A3 4-6-2 60103 "Flying Scotsman" in BR green early emblem (Hor) . . .



R30232 Liverpool and Manchester Centenary (1930) Pack With 0-4-2 "Lion" and Three Coaches (Hor).....£215.99



green early emblem (Hor) £241



R3832 Thompson Class A2/3 4-6-2 500 'Edward Thompson' in LNER apple green (Hor) (RRP £229.99) BARGAIN....£119 Diesel locos



R30120 Class 31 D5500 in BR green no yellow



R30158 Class 31/1 31139 in BR blue (Hor) NEW . . £201.59



3346 Class 33/1 D6580 in BR green small yellow



£147.22



R3950A Class 66 66746 in GBRt/Royal Scotsman (Hor) NEW£81.89



R30152 Class 66/7 66793 in Railfreight Construction triple



9771 Ruston 165 0-6-0 diesel shunter 45 in NCB dark en (Hel)



9770 Ruston 165 0-6-0 diesel shunter in industrial **Electric locos** 



R30030 Class 87 87006 "City of Glasgow" in BR large logo grey (Hor) ......£196.19



R30031 Class 87 87009 "City of Birmingham" in Intercity



R30098 Pair of Class 43 HST Power Cars 43004 "Caerphilly Castle" and 43155 "Rougemont Castle" in GWR Green (Hor) . . . . . £326.69



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R40007 ex-Mixt SK Ballast Cleaner Train Staff Coach DB 97-8002 in BR
departmental olive green (Hor) (RRP P24.249)B\_ARGAIN ... 19
R40008 ex-Mixt SK Ballast Cleaner Train Staff Coach DB 97-8004 in BR
departmental olive green (Hor) (RRP P42.49)BARGAIN ... £19





R4974 Mk1 RB restaurant buffet IC1667 in Intercity Executive (Hor) (RRP £42.49).....BARGAIN...



R40054 Stanier Period III 50' RK Kitchen Car D1912 30085 in LMS Coronation Scot blue (Hor)......£54.44



R40052 Stanier Period III 57' BFK Brake First Corridor D1961 5053 in LMS Coronation Scot blue (Hor) ... £54.44 Wagons



R6984 ZRA civil link van DC200488 in Civil Link "Dutch" grey and yellow (Hor) (RRP £24.49) ...BARGAIN....£17 **Buildings - general** 



PO375 Hotel Wedne sday (Tudor Style Hotel) - card kit (Met) £14 Buses



OM46411 Caetano Levante in East Yorkshire gold & blue (Cor) NEW . . . . .



76MST001 Austin Maestro Targa Red (Oxf) NEW



# **009 Narrow Gauge**



BR 51-251-B Ffestiniog 'Small England' 0-4-0TT 2 "Prince" in £135 Ffestiniog Railway maroon (Pec) . . . . . . . £135





2S-016-007 Class M7 0-4-4T 246 in SR black (Dap) NEW. . £89.92



2D-009-007 Class 121 'Bubble Car' W55025 in BR green speed whiskers (Dap). . . . . . £128.52

# O Gauge (1:43 Scale)



7S-006-026 Class 14xx 0-4-2T 1401 in BR lined green £215.73



7S-006-027 Class 14xx 0-4-2T 1421 in BR lined green late £215.73



7S-006-003 Class 48xx 0-4-2T 4814 in GWR green 'Great £215.73 DMHs



7D-011-003 Streamlined Railcar 16 in lined chocolate and cream GWR Twin Cities (Dap).....£321.30 Coaches



7P-020-500 Stroudley 4 wheel Main Line oil lit brake third in LBSCR varnished mahogany 1031 (Dap). . . . . £104.52

# **Any or Multiple Scales**



R7322 HM7000 21-pin TXS bluetooth and DCC sound H7322 HIM/000 21-pin 1XS bluetooth and DCC sound decoder (Hor) ... £62.99
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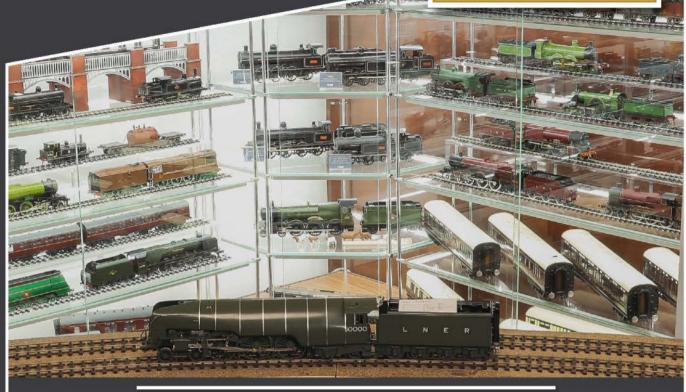
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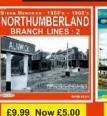
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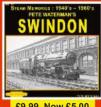




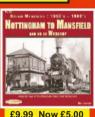
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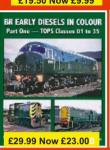
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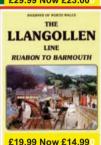


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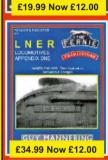
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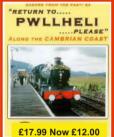




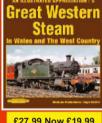
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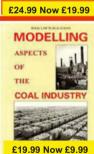


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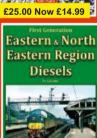




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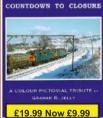
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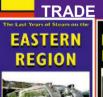


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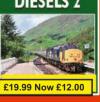




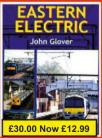






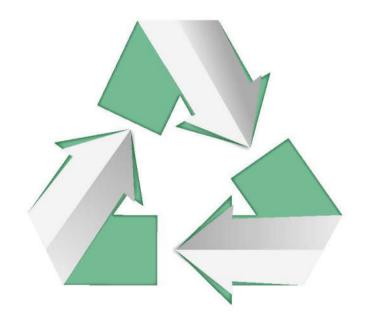


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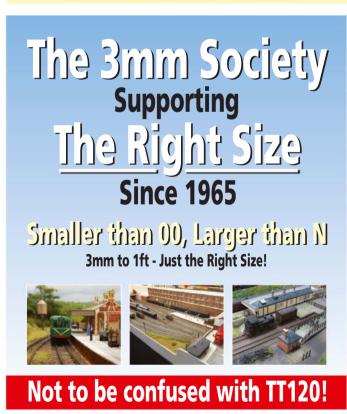
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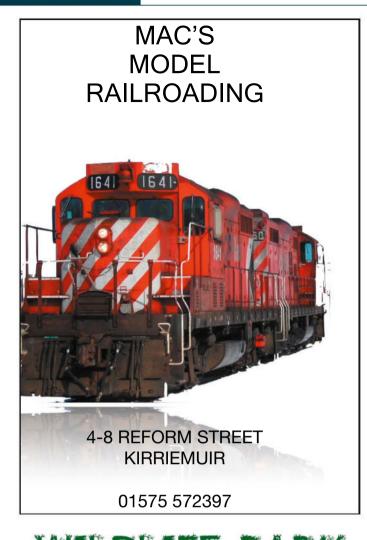








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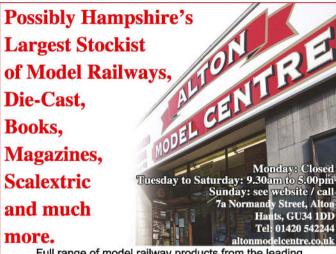
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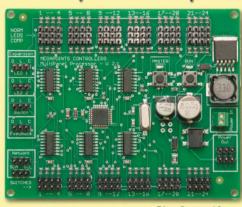
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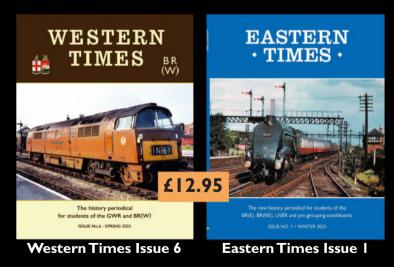
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Present your case

If there's a prototype that you think needs to be offered ready-to-run, here's the place to voice your opinion...

Locomotive: Midland Railway Deeley 1528 Class/BR Class OF 0-4-0T

Gauge: '0'

Proposed by: Barry Burns, by email

#### What is it?

Built at the Midland Railway's Derby Works under the auspices of Richard Deeley, a fleet of five powerful outside cylinder 0-4-0Ts appeared in 1907. The Midland 1528 Class was designed primarily for working within the confines of dockyards and other industrial locations with tightly curved track. The design proved successful enough to warrant a further batch of locomotives, built at Derby in the early 1920s, well after Deeley had resigned his post as locomotive superintendent.

For a 0-4-0 tank locomotive from the early 1900s, Deeley's design was on the large side and the 15in by 22in outside cylinders, Walschaerts valve gear and 3ft 9¾in diameter driving wheels combined to produce a credible amount of power. Furthermore, the use of outside cylinders and Walschaerts valve gear was unusual for a small tank locomotive and especially rare for a Midland design.

The long, low side tanks, stocky boiler and stovepipe chimney gave the Deeley 'OFs' a

distinctive appearance and examples could be seen working at a variety of locations, such as Staveley, Gloucester Docks and Neath, All ten examples were taken into British Railways stock and given the numbers 41528-37.

They operated successfully until the first withdrawals commenced in the late 1950s, with the final examples continuing until December 1966.

## What would make it viable?

Diminutive and characterful, Deeley's 'OF' would make for an ideal locomotive for 7mm scale layouts, especially for modellers with limited space. A dockyard, brewery or brickworks scene would make a perfect minimum space project. Alternatively, this useful 0-4-0T would look great pottering around a yard on a larger layout, offering a wonderful contrast with larger tender locomotives. It would certainly make a striking change from the more common saddle tank 0-4-0.

Deeley's design proved reliable and effective enough to enjoy long careers, so modellers could choose between Midland, LMS and BR liveries.

### Can I see a real one?

No. Unfortunately, all ten of Deeley's 1528 Class 0-4-0Ts were scrapped following withdrawal by British Railways.



### Have your say

Do you agree with Barry Burns' argument? Join the debate on our Facebook page: www.facebook.com/modelrail

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# Backscene



**Chris Leigh** has decided that it's high time he built some of the expensive kits he's bought over the years.



othing concentrates the mind quite like a cancer diagnosis. It's early-stage prostate cancer, it's treatable and not a threat to life expectancy. One in three men, so they tell you, die with it but not from it. Many are not even aware they have it, as they have no symptoms. I can't say I have any symptoms as such, and it was picked up through some careful monitoring over recent years.

Anyway, the treatment has side effects, best described as all the symptoms of menopause without being female! I haven't had the hot flushes - yet - but I certainly noticed the mood swings. These range from a desire to do nothing, sit in front of the TV and vegetate, to a need to get on with modelling projects that I haven't touched for years! In the past 17 years, since I've not had the steadying hand of anyone else to question my purchases, I've started numerous projects and finished very few of them, unless they were tied to a magazine deadline.

Now, I want to try finishing some of the expensive and rare kits that I've bought. For instance, I've recently bought a soldering station. I'm not very expert with a soldering iron and I thought that a new and more sophisticated piece of kit might help. There's more about this in Staff Show & Tell on page 22.

In particular, I have a pair of Lambourn Valley Railway four-wheel coaches to build. These are 'O' gauge kits from Robert Kosmider's excellent Steam and Things range and they came Above and below: Like the real thing, the Shorts C Class flying boat kit has travelled halfway round the World. It deserves to be built. all the way from Adelaide, Australia. They are well-designed traditional etched brass kits requiring some solder assembly, but what I like about them is that the instructions also mention glueing some parts. So many kit instructions assume that you're an expert at soldering everything from massive lumps of brass down to the tiniest whitemetal detail. It's nice not to feel that glueing things somehow makes one inadequate.

Speaking of my inadequacy, I did pass the Agenoria Models Hunslet O-6-OT *Eadweade* to Mr Dave Lowery to build the chassis, which he did. This is the locomotive which will work with the Lambourn Valley coaches once I have built the body. Back in the 1980s I built Roy Link's limited edition Lynton & Barnstaple 2-6-2T in 'O16.5'. This is actually a bit bigger than the Hunslet so I am hoping that my revived soldering skills will be sufficient.



# **GOING DOWN TO TITFIELD**

Titfield Thunderbolt fans need not despair, I have not forgotten my Titfield project, though for various reasons it has not made any recent progress. That is about to change as I tackle the next stage of the project, which is to lay the track and start the scenic base and the road.

A holiday in Dorset last summer provided an opportunity to visit Midford and Monkton Combe, two of the most identifiable locations from the film.

Midford Viaduct is now part of the Colliers Way walking and cycle path, easily accessed from the car park of the Hope & Anchor pub which stands at one end of the viaduct. Unfortunately, while there are some great views from the viaduct (despite the necessary safety screens) the viaduct itself is virtually invisible as uncontrolled woodland has grown up around it. The immediate surroundings are so heavily wooded that the remains of the Camerton branch, which passed underneath it (and which is seen at the very beginning of the film) are only just visible, aided by a couple of ivy-clad bridge abutments.

Monkton Combe, where the disused station became Titfield with some movie props and flowers, is a village built around a large school. School playing fields now cover the in-filled cutting where the station once stood and garages block the one-time station entrance, leaving just two gateposts, cast in Leicester, as the only clue to the location.

But look up the hill, where Mr Blakeworth cycled to the station, and despite the loss of some stone wall and a couple of new houses, there's no doubting that this is where Titfield's passengers walked to catch the train. The inevitable UPVC double glazing and the odd extension don't adversely affect the look of the street, and it is that street which is the next feature to tackle.

I still intend to have the Titfield diorama ready for the arrival of my Rapido Thunderbolt. I had originally intended to give it to Rapido for display purposes but they have a complete Titfield layout of their own (albeit the Ratio station building is nothing like the real thing) so I shall be keeping it. Once - eventually - 'Polwyddelan' and 'Oakworth' have left here for new homes, I might actually have enough space for it!



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