

GARDEN

MARCH 2020
ISSUE 307

Rail



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BRAND OF THE MONTH: MSS

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MSS 3/4 Side Tank Loco	909030	£300.00	(available in Black, Green & Maroon)
MSS Side Tank Loco	909003	£210.00	(available in Black, Blue, Green & Maroon)
MSS Side Tank Loco KIT	909009	£200.00	(available in Black, Blue, Green & Maroon)



MSS Starter Set

The MSS Starter set is £320.00 our best value set, each Starter Set includes one MSS Side Tank Locomotive with matching Tender, 16 pieces of curved track and 4 pieces of straight track (enough to make an oval 7ft x 5ft), a box of solid fuel tablets, funnel, coupling hook and full instructions. Available in Black, Blue, Maroon and Green

MSS Starter Set KIT

MSS Starter Set KIT is £305.00 our best value kit, each Starter Set Kit includes all the parts to assemble one MSS Side Tank Locomotive with matching Tender, 16 pieces of curved track and 4 pieces of straight track (enough to make an oval 7ft x 5ft), a box of solid fuel tablets, funnel and full instructions. Available in Black, Blue, Maroon and Green



*In stock as of 24/12/19, please note these loco's may no longer be available, check stocks online or call.
Please note basic range takes 12 weeks from initial order and other locomotives are in batches.
Batch dates will be in product description. Locomotives in stock will state instant dispatch available.

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Flexi Track - Single	SL600x1	£10.00	Saddle Tank	MST From	£353.00	Dead Leg Lubricator	DSUPDL	£29.00	Toby the Tram	91405	£230.00
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Setrack 38 Radius Curve - Six Pack	ST607x6	£48.00	Tender	MTDR	£45.00	Brass Side Tank Hand Rails	DSENSTHR	£5.20	Clarabel Coach	97002	£80.00
Right Hand Point	SLE695	£45.00	Tanker	MTNK	£42.00	Brass Smoke Box Hand Rails	DSENSBXHR	£3.10	Emily's Coach	97003	£70.00
Left Hand Point	SLE696	£45.00	Goods Wagon	MGWN	£45.50	Cylinder Covers	DSENCYCV	£12.00	Emily's Brake Coach	97004	£70.00
Y Point	SLE697	£45.00	Guards Van	MGVAN	£75.00	Brass Sand Boxes	DSENSBX	£12.50	Troublesome Truck 1	98001	£59.50
Small Radius Right Hand Turnout	SLE691	£45.00	Telford Tender	MTDR-T	£45.00	Brass Tank Tops	DSENWTT	£9.40	Troublesome Truck 2	98001	£59.50
Small Radius Left Hand Turnout	SLE692	£45.00				Lubricating Oil	SWLUB30	£3.00	Ice Cream Wagon	98015	£70.00
Wagon Turntable and Crossing	SL627	£20.00				Meths Burner Wick	DSWKK6	£1.90	Tidmouth Milk Tank	98005	£70.00
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45mm (G45) Track						460 Steam Oil 500ml	DSW460SO500	£3.50	Explosives Box Van	98017	£70.00
Flexi Track - Six Pack	SL900x6	£85.00	Maroon Tender (32mm/45mm)	911403	£55.00	220 Steam Oil 500ml	DSW220SO500	£5.50	Open Wagon Blue	98012	£70.00
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Setrack Curve - Six Pack	ST905x6	£45.00	Black Tender (32mm/45mm)	911402-BL	£55.00	Water Filler Bottle	DSWFFB	£4.00	Sodor Fruit & Vegetable Co. Box Van	98016	£70.00
Setrack Curve - Single	ST905x1	£8.50	Blue Tender (32mm/45mm)	911402-BL	£55.00	Meths Filler Bottle	DSWFFB	£3.00	Sodor Fuel Tank	98004	£70.00
Setrack Straight - Six Pack	ST902x6	£45.00	Maroon Passenger Coach (32mm/45mm)	911201	£55.00				Splendiferous Brake Wagon	98021	£70.00
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Left Hand Point	SLE96	£60.00	Goods Van (32mm/45mm)	911101	£55.00				"LS" Skeleton Log Car	98490	£79.00
Point Motor Mounting Plate	PL8	£3.60	Guards Van (32mm/45mm)	911001	£55.00				"LS" Speeder Orange	98253	£90.00
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Insulating Rail Joiners - 12 Pack	SL911	£3.10	Coal Wagon Unpainted (32mm/45mm)	911505-1	£55.00				"LS" Speeder Santa Fe	98252	£90.00
Dual Rail Joiners - 6 Pack	SL912	£6.00	Pair of Flat Bed Wagons (32mm/45mm)	911301	£55.00						
			Straight Track	910003	£35.50						
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			Left Hand Point	910001	£25.40						
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			Side Tank Locomotive (32mm/45mm)	909003	£210.00						
			Saddle Tank Locomotive (32mm/45mm)	909013	£240.00						
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£29			Festiniog Railway 2 Ton Braked Slate Wagon Kit			Bertie					
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						Deep Brunswick Green 32mm					
						Maroon 32mm Radio Control					
						Deep Brunswick Green 32mm R/C					
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GARDEN Rail

Incorporating GARDEN RAILWAY WORLD
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Next Month: We're off to Wales with Ben Bucki visiting the Anglesey Model Village.



VIEW FROM THE END OF THE PLATFORM



Phil Parker
Editor

Are you a builder or a buyer?

In this issue you'll find Chris New explaining how he fits locomotives with radio control on a budget. When I first read his piece I knew it would be interesting and useful to readers, but also highlights a conundrum facing any modelling magazine editor.

Alongside the articles, you'll also find advertising from the many excellent suppliers within our hobby, some of whom sell radio control systems.

With a commercial hat on, is publishing Chris's article a bad thing, or at least something they would disapprove of?

I hope not. My feeling is that there is space for all. Many people will delight in putting together their own RC setup. Others will decide that trying to work out what a "Micro JST" plug is isn't worth the bother.

The first group will say it's all simple really and everyone should be ordering stuff direct from China and breaking out the soldering iron at the first opportunity. Wrangling circuit boards and wires is great fun and there is immense satisfaction once everything works.

Others derive their pleasure differently and fighting the electric spaghetti just gets in the way of their favourite parts of the hobby. You only have to look at those operating layouts at exhibitions to know how popular off the shelf control systems are – justifiably once you've had a play with one.

Garden railways, in my experience,

accommodate both groups better than the small-scale world. Plenty of lines are home to both beautiful live steam locomotives that have been bought in, and interesting battery electric models assembled from kits. Then there are those, like Richard Turner, who buy in their motive power and set about customising it with all sorts of extra details, and in the case of his Bagnall, weathering, a controversial subject in its own right.

We see the same with rolling stock. Plenty of kits are available such as the Bole BEV loco Mark Thatcher builds, but Dave Skertchly is happy to turn a pile of raw materials into coaching stock, even making his own castings.

ORDER, ORDER.

Late in the preparation of this issue, I had to shuffle the page order. This sees Product News move to the front of the magazine as extra space was required for all the models announced. I'm not planning to make this a permanent move, unless readers prefer it this way. If you do, or don't, let me know.

Talking of Product News, there's a

From last years Midlands show. A 45mm gauge horse drawn tram.



A GVT live steam tram.

lot of electric power this time. For a while the live steam boys have enjoyed a procession of announcements, and we have two more of those as well as a progress update on one from last month, but the biggest surprise has to be the arrival of Hornby. OK, it's a posh toy, but I bet there are a few running around 45mm gauge layouts in a few months time. To entertain the kids, obviously...

THE MIDLANDS GARDEN RAIL SHOW

We are hosting the show guide for the Midlands show as usual this month. It's the closest show for me so I'm intending to visit on both days. Please stop for a chat if you spot me. One of my favourite parts of this job is talking to readers. This is your magazine. Tell me what you'd like to see on these pages, but don't be surprised if I try to persuade you to share your efforts with us too. ■

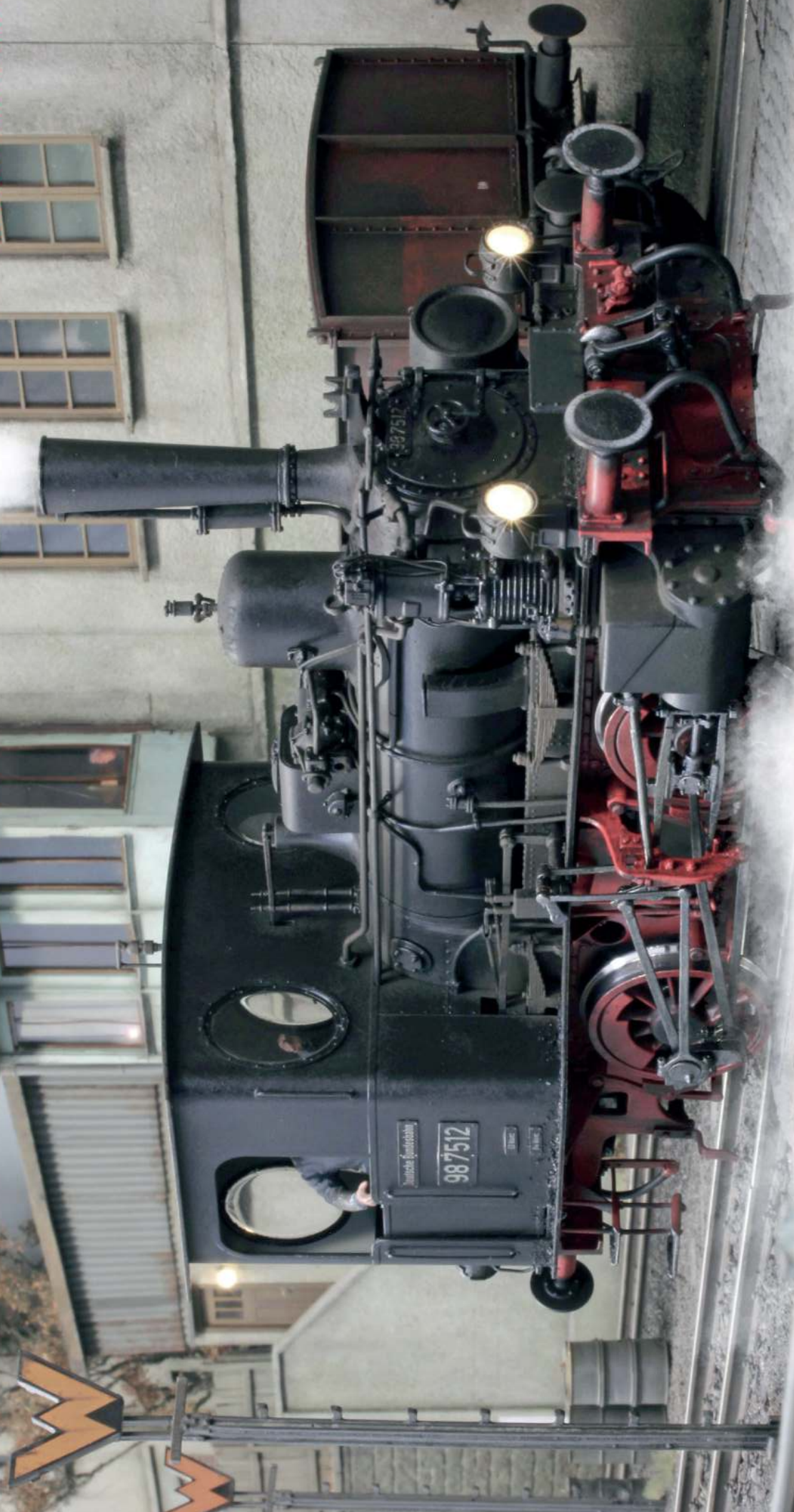


One for the vintage enthusiast, a 1940s express locomotive built by Bowman.

Passion for Gauge 1.

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From the Works

Trade information on new products for the garden railway modeller...
If you are a trader with any new product, then contact phil.parker@warnersgroup.co.uk
Please mention **Garden Rail** when contacting suppliers

GARDEN RAILWAY SPECIALISTS

Project Update – 16mm scale “Alice” type Quarry Hunslet

Pilot models are due in Spring 2020 with production scheduled for 2020/1. We'll bring you photos of the pilots as soon as we receive them.

Specification:

- 1/19th Scale
- 32mm or 45mm
- Full Stephenson's Valve Gear
- Poker burner
- Water & Pressure gauges
- 20-30 min. running time (TBC)
- Manufactured by Bowande in China



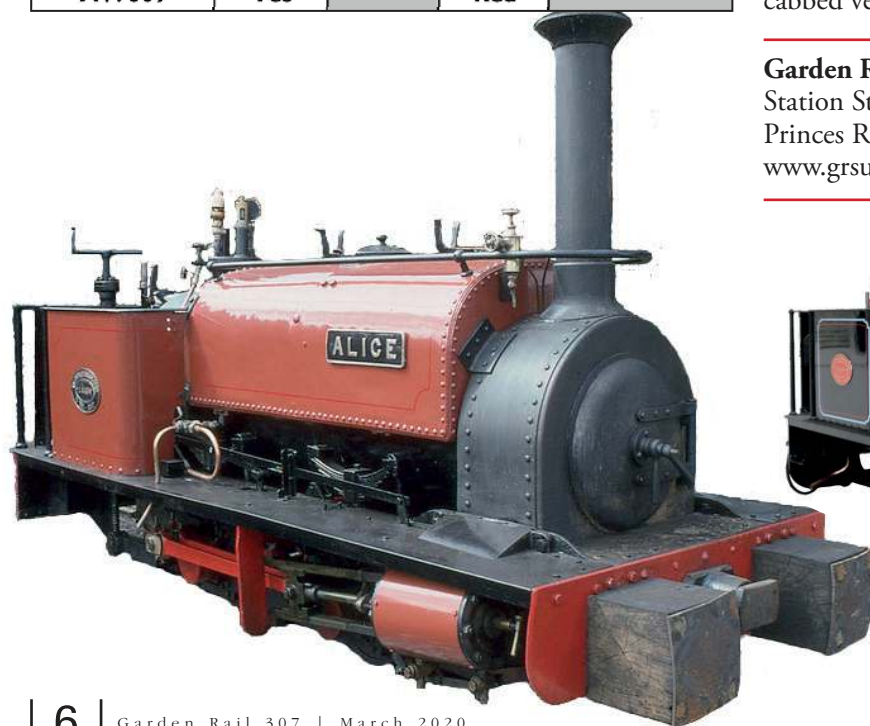
Product Code	Cabless	Cabbed	Livery	Lining Style
AW001	Yes		Black	Penrhyn
AW002	Yes		Red	Dinorwic
AW003		Yes	Green	Black/Yellow
AW004		Yes	Blue	Black/White
AW005		Yes	Red	Black/Yellow
AW006		Yes	Black	
AW007		Yes	Black	Penrhyn
AW008	Yes		Black	
AW009	Yes		Red	

Open cab Locos will be produced in Penrhyn lined Black (red/blue), and Dinorwic lined Red, with additional plain black and plain red versions ideal as a base for custom paint schemes.

Those preferring a cabbed loco will have a choice of Penrhyn lined Black, or plain Black, but also Red, Green, or Blue lined liveries based on the Britomart style.

Estimated prices are open cab Locos at £1499.00 with the cabbed versions at £1699.00.

Garden Railway Specialists Ltd
Station Studio, 6 Summerleys Road,
Princes Risborough, Bucks, HP27 9DT
www.grsuk.com



HORNBY

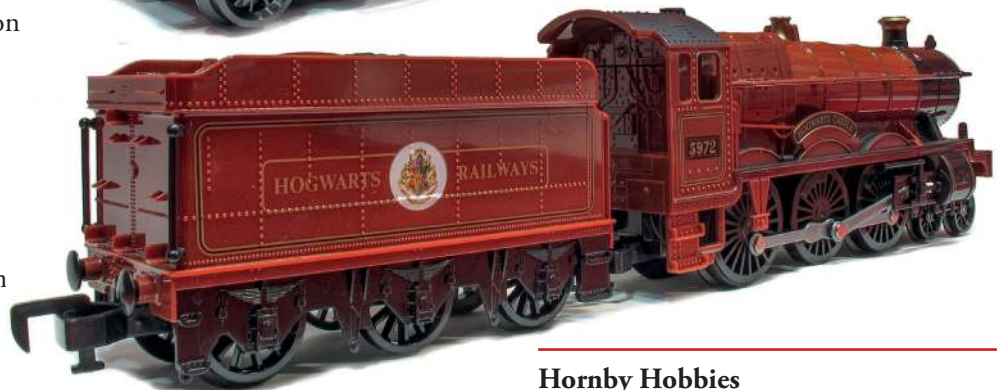
Gauge 1 Harry Potter train set

The biggest surprise in Hornby's 100th anniversary new product announcements is that they will be marketing the Gauge 1 Harry Potter train set produced in the USA by Lionel trains.

Each set includes "Hogwarts Castle", a pair of coaches, an 73" by 50" oval of plastic track and a remote control. As well as operating the speed and direction of the model, the control activates the sound effects, including clips from the movies.

While undoubtedly a toy, those coaches remind your Editor of the Tri-ang shorties from the 1960s, it's great fun and a lot of train for the money.

Lionel sell extra track pieces, including pointwork, but I can't see why the model shouldn't run on normal 45mm gauge track. I suspect there will be a few modellers who add this to their layout to entertain younger enthusiasts, and others looking at it with ideas for converting the stock to other things.



Hornby Hobbies

Westwood Industrial Estate, Margate.
Kent. CT9 4JX
www.hornby.com

Price: £149.99 (RRP)
Release date: Autumn 2020



APPLE TREE RAILWAY

45mm gauge enclosed motor-gearbox units

Apple Tree Railway have been producing Gauge 3 gearboxes for some years and have now developed a compact axle-hung unit with ballraces and enclosed spur gears for Gauge 1.

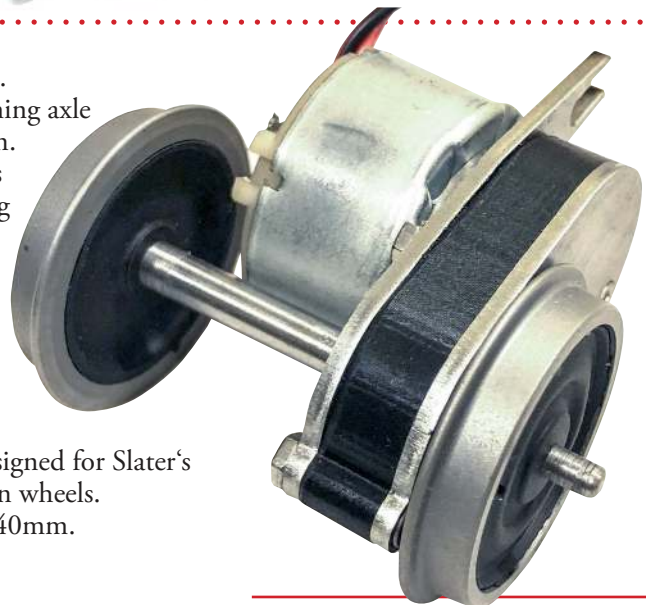
The design keeps out grit, stray ballast, leaves and twigs that can cause havoc with open gears. Scale speeds for 1:22.5 can approach 30-45 mph, depending on the train weight and wheel size. As an example, two units driving 30 mm wheels with a total train weight of 10kg, typically reaches scale 34 mph, with 40 mm wheels it's 45 mph.

Specification:

- Either 9V or 12V motors can be specified, giving same performance.

- Gear ratio 10.8:1.
- Typical free running axle speed is 490 rpm.
- Body diameter is 26mm, requiring minimum wheel diameter 28mm.
- Gearbox clamped onto supplied axle using hex key.
- Axle journals designed for Slater's Gauge 1 twist-on wheels.
- Back-to-back is 40mm.

Price
£40 per unit +P&P
Includes axle, hex key, user instructions and test certificate.



Apple Tree Railway
www.facebook.com/appletreerailway/

LGB

2020 RANGE ANNOUNCED.

Class IV K Meyer locomotive

Painted and numbered as an Era III locomotive on the DR.

Two powerful Bühler motors drive all of the wheelsets, some of which are fitted with traction tyres.

The locomotive has an mfx/DCC decoder with many sound and light functions, such as headlights that change over with the direction of travel, cab lighting, and a smoke unit with steam exhaust synchronized with the wheels.

Length over the buffers 48cm/18-7/8".

HSB Class V 10C Diesel Locomotive

A model of the class V 10C diesel locomotive, numbered 199 006-8, as it still is today on the HSB. The livery and lettering are prototypical for Era VI.

All of the wheelsets are driven by a powerful Bühler motor.

The locomotive has an mfx/DCC decoder with many light and sound functions.

The cab doors can be opened.

Length over the buffers 29cm/11-7/16".

DRG Class 99.22 Steam Locomotive

A model of the German State Railroad Company (DRG) narrow gauge steam locomotive, numbered 99 221, in the photo grey paint scheme as originally delivered.

This is the version with an older design boiler with a feed water heater. The livery is for Era II.

All wheels are driven by two powerful Bühler motors. The locomotive has an mfx/DCC decoder with many sound



and light functions, such as headlights that change over with the direction of travel, cab lighting, or separately controlled running gear lights.

The locomotive has a whistle and bell activated by a reed switch, sounds that will also work under analogue operation. A built-in smoke generator with steam exhaust is synchronized to the wheels as well as cylinders. The locomotive has many separately applied details including a completely detailed cab as well as doors that can be opened. The dual headlights and the large ventilation installation on the cab roof are correct for the era.

Length over the buffers 55cm/21-5/8".

Kirnitzschtalbahn Street car and trailer

This is a model of an old-timer streetcar with a trailer painted and lettered for the Kirnitzsch Valley Railroad in Saxony. The livery is for Era VI.

Both wheel sets on the motor car are driven by a powerful Bühler motor. The train has an mfx/DCC decoder with many light and sound functions – this is the first time the model has been made available with sound.

The headlights change over with the direction of travel and the running sounds will work in conventional operation. Two sound functions can be activated with built-in reed contacts. A cable to connect the trailer car electrically to the motor car is included.

Length over the buffers 70cm/27-9/16".

MPSB Diesel Locomotive

This is a model of the field railroad diesel locomotive in the MPSB (Mecklenburg-Pomeranian Narrow Gauge Railroad) livery, for Era VI.

All wheels are powered. The locomotive has an mtc21 interface connector for the first time with an mtc21 decoder interface for adding a





Märklin 60972 or 60975 decoder.

Length over the buffers 19cm/7-1/2".

To accompany the locomotive, there is a double-pack of coaches fitted with metal wheels.

Length over the buffers together 50cm /19-11/16".

Coca Cola® Mogul Steam Locomotive

This is a model of a Mogul design old-timer steam locomotive in a Coca Cola® livery for in Era III.

All wheels are driven and traction tires are fitted.

The locomotive has an mfx/ DCC decoder with many light and sound functions. It has a smoke generator with smoke exhaust and cylinder steam synchronized with the wheels. The headlight and running sounds will also work in analogue operation.

Length over the buffers 67cm/26-3/8".

To compliment the locomotive, a range of coaches will also be available.



Chloe Steam Locomotive

For Christmas 2020, there will be a field railroad locomotive "CHLOE" presented a festive livery complete with working headlight.

A figure of a Santa Claus as a driver is included. A pair of matching 4-wheel coaches will be available.

Length over the buffers 28cm/11".

firm Lebkuchen-Schmidt in Nürnberg. The paint and lettering are prototypical for Era IV.

The side doors can be opened and the model has metal wheelsets.

Length over the buffers 30cm/11-13/16".

The model will be available from the märklineum shop in Göppingen which opens in June 2020.

LGB Museum Car for 2020

This is a model of a box van painted and lettered as a privately owned car for the

LGB models are available from your usual dealer.



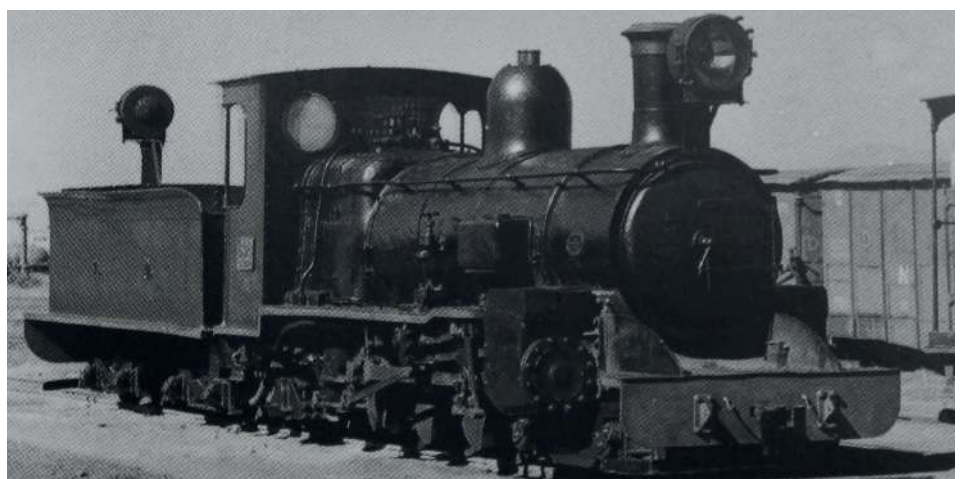
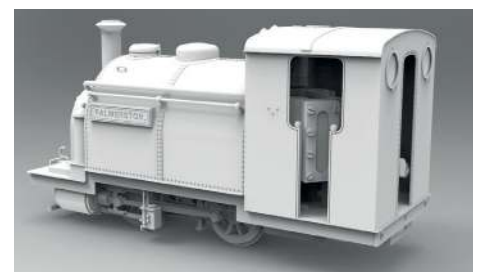
ROUNDHOUSE ENGINEERING

New locos for 2021 and 2022

Roundhouse have announced their next two locomotives.

In 2021, they will be producing a Small England class and will follow up in 2022 with a Darjeeling C Class. No orders will be taken until 1st January in the appropriate year, however the projects are being worked on right now.

The Small England CAD images are early versions. For a start the tender hasn't been drawn up yet! We'll bring you updates on these projects as soon as we have the information.



Roundhouse Engineering Co.Ltd.

Units 6-10, Churchill Business Park,
Churchill Road, Wheatley, Doncaster,
DN1 2TF
www.roundhouse-eng.com

RESURGAM ROLLING STOCK 1:19 South African Railways NG-8-D-11 / NG-8-D-13

These 2ft gauge, wooden bodied open wagons were originally built as 'Type O' open wagons for the Otavi Minen und Eisenbahn Gesellschaft (OMEG) in former German South West Africa (now Namibia). During the early part of the First World War, Union of South Africa forces drove the Germans out and seized control of this line. What they inherited was in a badly run-down condition and with few resources available they had to adopt a 'make do and mend' approach to see what could be recovered.

As a result, 39 vehicles were refurbished with new bodywork as NG-8-D-11 or NG-8-D-13; the only difference between them being the journal sizes. Over the following years all of the rebuilt vehicles were fitted with vacuum brakes in line with standard South African Railways practice. In 1926 the Kakamas and Seymour branches were completed in the 'Union' and all of the re-built vehicles were transferred to these lines. After the Second World War the Kakamas and Seymour branches were widened to Cape Gauge and the wagons were transferred to the Avontuur branch where they were in service well into the 1970s.

The new kit is highly detailed, including both internal and external



planking as well as correct pattern leaf spring bogie frames and dummy brake rigging. It also incorporates Resurgam's proven 'hidden slot and tab' construction for easy and accurate construction.

Naturally suited to SAR modellers they would make a particularly good accompaniment to the upcoming Accucraft 'Lawley', with the prototypes having most certainly worked with them on the Kakamas and Seymour Branches.

Compared to other SAR stock, these vehicles have a much shorter wheelbase and at just over 260mm long over the headstocks in model form, would make

an excellent small to medium sized bogie wagon on any garden line.

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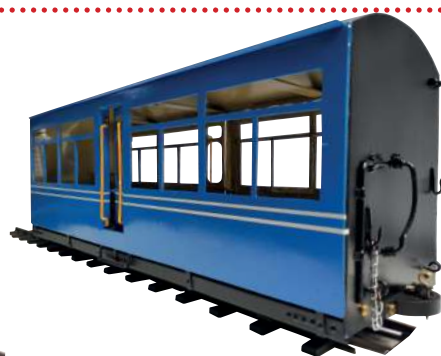
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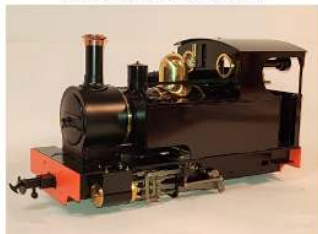
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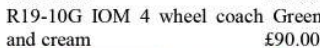
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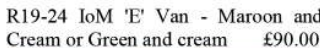
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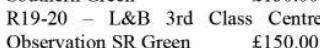
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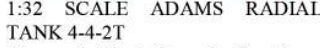
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1:32 SCALE ADAMS RADIAL TANK 4-4-2T

The model is 1:32 scale for 45mm gauge track, gas-fired with a single flue boiler. The East Kent Railway version is only available from Kent Garden Railways. The anticipated UK RRP will be £1950.00 or £1995.00 for the RTR version (depending on livery), £1795.00 or £1850.00 in kit form.



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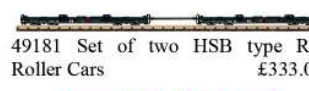
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Personalising an Accucraft Bagnall

Not one to run a model as it comes straight out of the box, Richard Turner takes a look at his brother's Bagnall.



My brother, Dave, who now models in 7/8" scale with an Accucraft Quarry Hunslet among other things, recently acquired an Accucraft 7/8" Bagnall locomotive, used but 'as new'. My job was to install radio control and personalise the loco to his requirements: specifically, make it represent a loco in workaday condition.

At this point I had better own up to "form" in the de-beautification of pristine locos, having committed Grievous Bodily Harm on Dave's Hunslet (**GardenRail** 255), as well as his Regner 'Chaloner' (**GardenRail** 264). These work on the fictitious Derbyshire Peakstone Quarry's railway. Set in the early 1950s, it represents a 2ft gauge line, transporting quarried limestone for transshipment to the BR(LM) Hope Valley line in North Derbyshire.

The latest victim under attack, then, was a beautiful pea green, er, Bagnall. In addition to the installation of radio control to both regulator and reverser, as well as repainting in black and weathering, Dave's requirements included attention to couplings, fitting name and works plates plus a number of cosmetic additions.

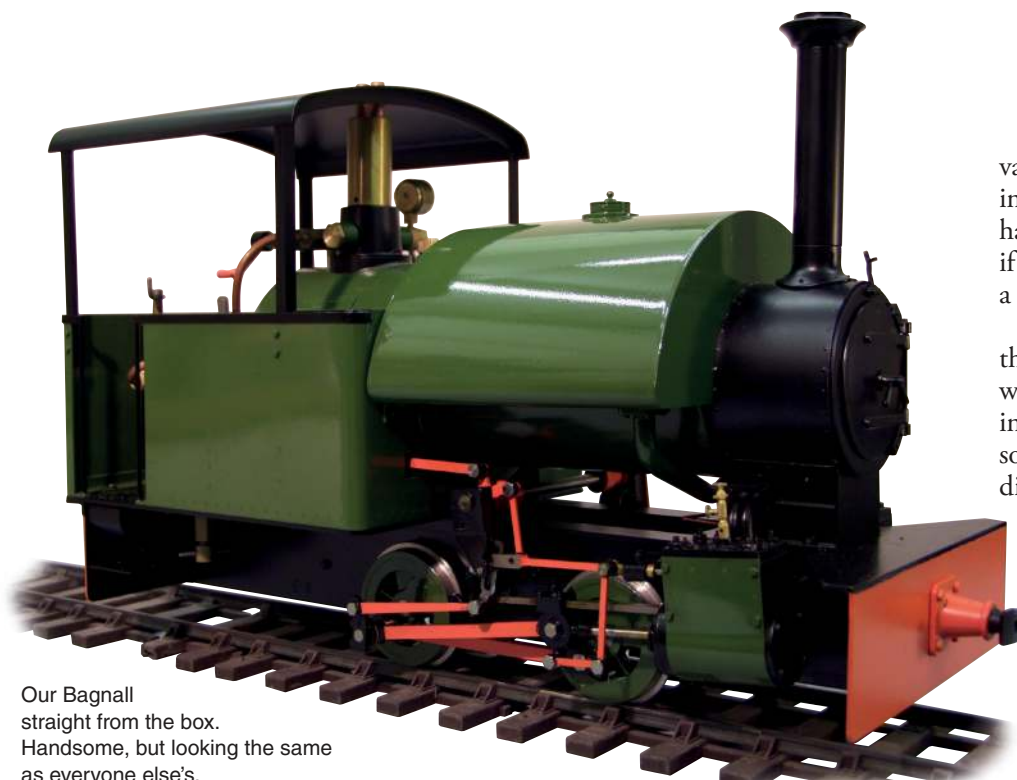
Before starting any work, we decided to steam the loco to check that it ran properly. This would also enable us to assess the efficacy of the already fitted Summerlands Chuffer (good) and the level of noise from the burner, which had been disappointingly loud on the Hunslet as bought (much quieter).

To business. The first item on the agenda was the radio control, using two metal-g geared micro servos, as used on the Hunslet, and a Deltang Rx102-1 receiver, with extended aerial, from

Micron radio control. They would be powered by a pack of four AAA NiMH cells from Strikalite, and operated by the Spektrum DX5e transmitter already in use with the Hunslet. The brief was to make the radio gear as inconspicuous as possible.

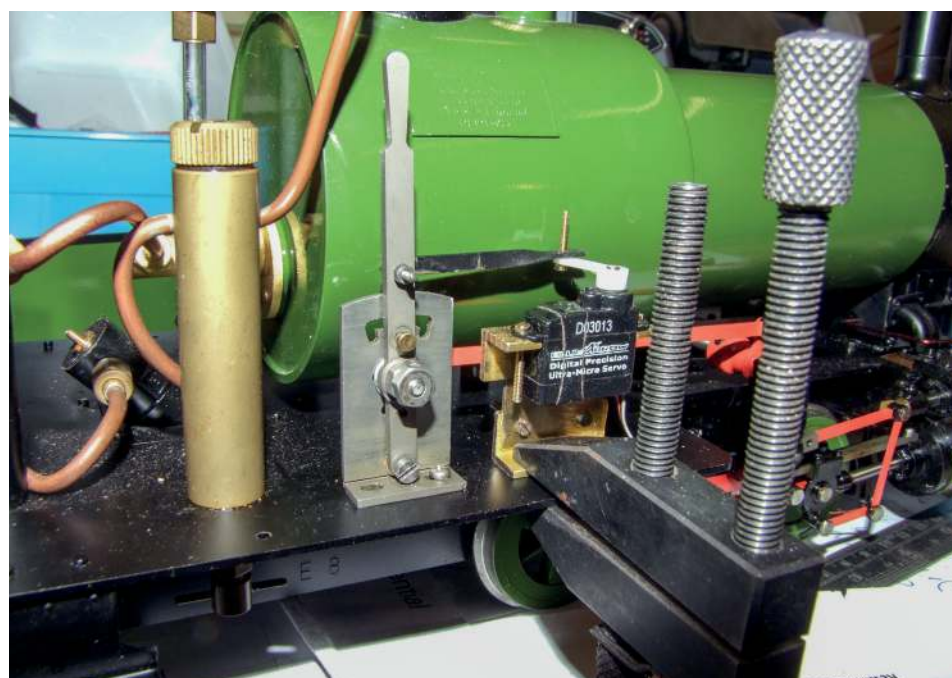
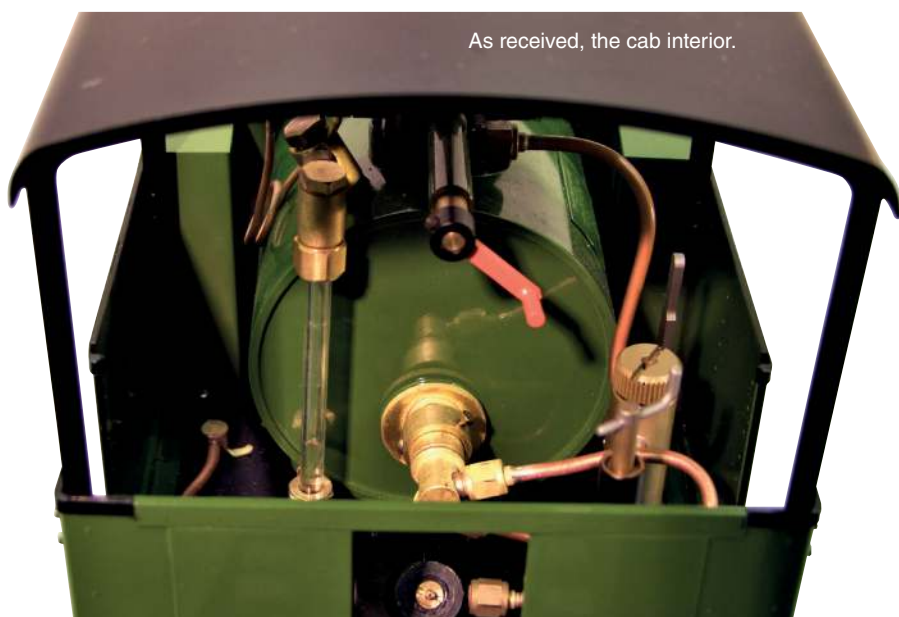
I started with the regulator, copying the set-up from the Hunslet, with a dummy coal bunker housing the servo and the battery pack. The switch was fitted to the already provided mounting point in the footplate, beneath the front end of the cab side. This latter had to have the lower part of the enclosed section inside the front of it cut away to clear the switch and allow the cables to emerge.

Moving to the reverser, I found that the manual control, which on this loco operates the Walschaert's valve gear, was much stiffer than the Hunslet's reversing



Our Bagnall straight from the box. Handsome, but looking the same as everyone else's.

As received, the cab interior.



valve and, sure enough, a lash-up installation showed that the micro servo had too little power. It would operate it if the loco was moved or the lever given a bit of manual assistance.

Not a lot of use then, you might think, but Dave, as well as being a wheelchair user following a spinal injury, also has limited use of his hands, so the servo assistance might make the difference between his being able to operate the reverser or not.

The final item was the receiver, and both to hide it and shield it from heat radiation from the boiler. It was housed inside the enclosed section at the front of the right-hand cab side. To provide visual access to the receiver, necessary when binding it to the transmitter, a hole was cut in the top, with a removable cover. The lower part of the enclosed section inside the front of the right-hand cab side also had to be cut away, to allow access for the wiring. A hole was drilled near the top of the rear face of the enclosed section for the extended aerial to exit.

With work on the radio installation completed, I could now turn to the cosmetics, starting with the spectacle plate found on preserved prototype example "Sir Tom". This was cut from 24g brass sheet and fixed to the forward cab roof support angle with 12BA hex head screws.

Further study of "Sir Tom" revealed that the saddle tank, at first glance appearing to be fully welded, had in fact riveted-on end plates. Are they dummies?

A search through my accumulated remnants from previous jobs yielded enough rivets left over from the construction of the Hunslet's cab, to fit them to the front of the tank. Since Dave had paid for these, I felt duty-bound to use them!

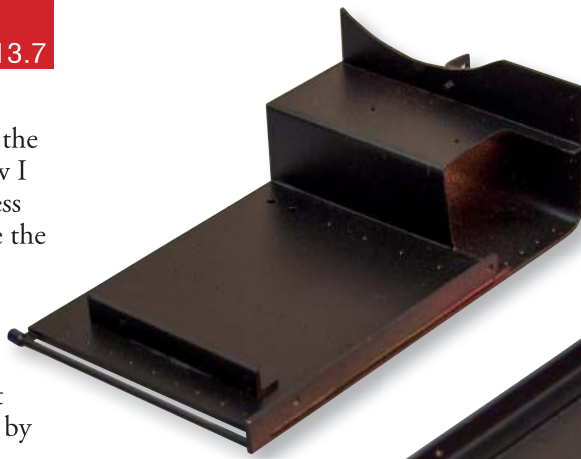
A drilling guide was made from a piece of scrap metal, clamped to the tank front and slightly undersize holes drilled for the rivets. The holes were carefully opened out until the rivets could be tapped into them with a light hammer; they were retained by cyanoacrylate (Superglue) applied to their shanks, inside the tank.

Time now to tackle the change of livery, for which the boiler would have

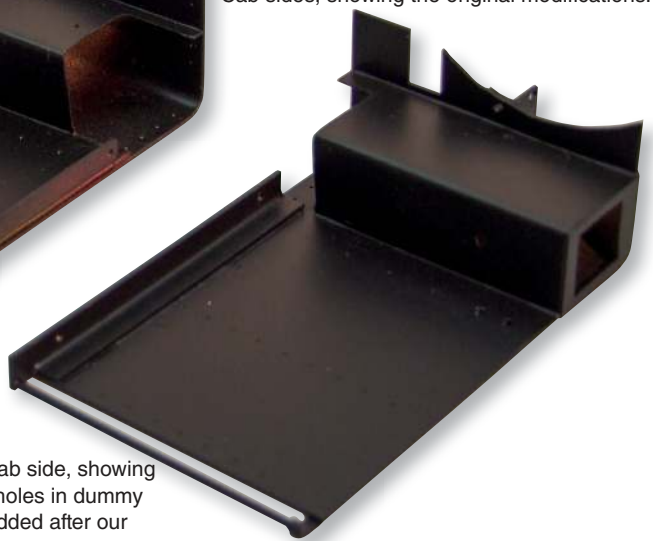
Our original reverser servo lash-up for testing.

to come off. I had already removed the pressure gauge and safety valve; now I removed the chuff pipe to gain access to the steam pipe connection inside the smokebox.

I next removed the lubricator, gas valve, burner and all associated pipework and withdrew the steam pipe. This was followed by the sight glass blow-down pipe but, haunted by



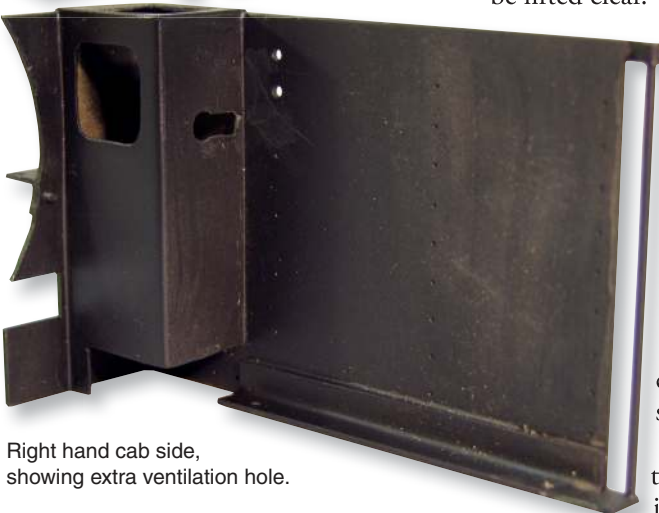
Cab sides, showing the original modifications.



Left hand cab side, showing ventilation holes in dummy bunker added after our test runs.



Right hand cab side, showing extra ventilation hole.



nightmare visions of misaligned fittings and broken glass, I decided that the sight glass assembly itself could remain in situ. Removing the single screw holding the boiler to the footplate allowed it to be lifted clear. The saddle tank could then be slid forward and removed. With its various orifices and exposed screw threads, not to mention the sight glass(!) masked off, the boiler was now sprayed matt black (or so it said on the aerosol – actually, and fortunately, it came out semi-matt), then the cab sides and back were similarly treated.

Turning my attention to the chassis, the first item being the change of

buffer/couplers. Those provided with the loco are exquisite replicas of the type on which the coupling link emerges from a slot in the buffer head but sadly, these were incompatible with the 'chain over buffer' type we use on Dave's line.

The bits box yielded a suitable pair of these, although adaptor plates had to be made to convert them to the four-bolt mounting arrangement of the originals, allowing the original set-screws to be re-used (this was essential, as the rear of the gas tank is very close to the rear buffer beam).

From the parcel of accessories that Dave had sourced from Model Earth, I unearthed the safety chains that he had decided would enhance the rather bland buffer beams. These were made up and dunked in Metal Black, then mounting holes were drilled in the beams, level with the coupler centreline and 50mm apart, outside the underframe, to avoid the gas tank.

Next, the underframe and running gear were degreased and the still green wheels and cylinder cladding brush painted. To save having to weather them later, I concocted a 'dirty black' for the wheels by adding brown to Humbrol matt black enamel. The chimney, smokebox and door were now coated with a mixture of matt black and a small amount of grey.

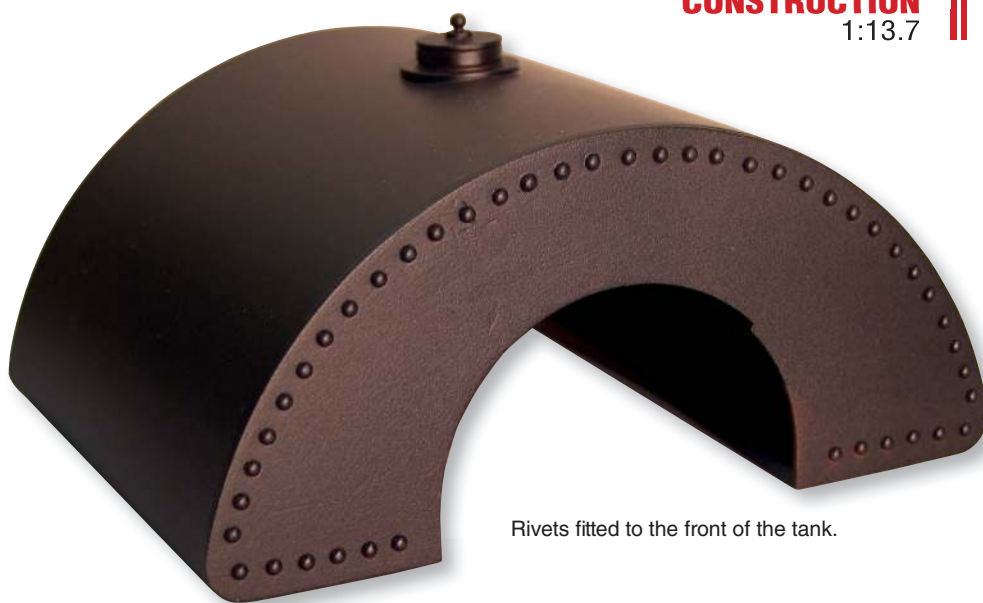
The Model Earth lucky bag next yielded a dummy sand-box, designed to disguise the very prominent water filling plug. This was built up with a short length of copper pipe each side, bent to lightly grip the boiler sides. The assembly was then primed and sprayed matt black. While I was at it, I also cleaned up and painted the oil can and



Ventilation hole in right hand footplate, under cab side front end.

tea can ("mashing can" in Derbyshire argot), from the same source.

It was now time to start reassembly. The saddle tank was threaded over the boiler and held back against the firebox by elastic bands, then the main steam pipe was inserted into the fire tube and retained by the burner. The boiler assembly was offered up to the smokebox and the steam pipe union nut engaged with the union, but not fully tightened. The single screw under the firebox which retains the boiler was now fitted but not tightened, followed by the pipes associated with the gas system and lubricator. Once these, plus the sight glass blowdown, had been loosely connected up, the boiler



Rivets fitted to the front of the tank.

screw was tightened, followed by the pipework union nuts, not forgetting the steam pipe union in the smokebox.

Next came the cab sides, installing and checking the regulator and reverser servos and linkages as I went along, and locating the receiver in the pocket at the front of the right-hand one, threading the aerial through the hole I had made. Diligent care was taken not to trap any cables as I tightened the screws holding the cab sides in place.

The pressure gauge piping was tweaked to bring the gauge into a more authentic position and the gauge re-fitted, facing rearward.

This was followed by the safety valve and its cosmetic cover.

After a careful check round the cab interior, the cab backplate was fitted. The home-made spectacle plate, to which I had fitted the dummy whistle, again from Model Earth, was fitted to the cab roof, which was then re-fitted to the loco.

The extended aerial was now threaded through a length of close-fitting copper tubing, such that the aerial proper was exposed beyond the end of the tube. The tube was then shaped to follow the

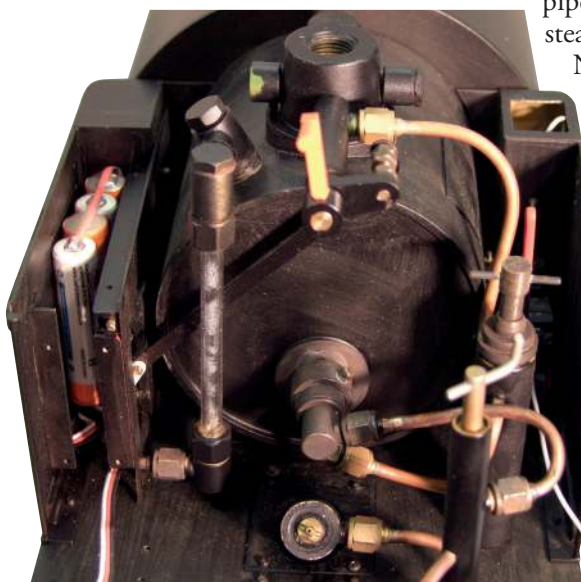
adjacent cab roof support and attached by clips in two places, so that the aerial proper was clear of any metalwork and at the same time in a reasonably protected position.

I now fitted the name plates and works-plates, from Narrow Planet, using bathroom sealant. The name, CASTLETON, is that of one of the principal towns in Derbyshire's Hope Valley, near the site of Dave's fictitious limestone quarry, and, in the era modelled, several real ones. A final bit of weathering with my Humbrol dirty black concoction completed the appearance that Dave was after (I hope!).

Time now for a test run on Dave's layout. Everything worked fine until, about ten minutes into the run, the regulator control failed to respond. Luckily the reverser did and the loco was stopped by pulling it into mid-gear. Why had the regulator failed?

As soon as I touched the cab side in which the servo was housed, I knew the answer: it was too hot to bear one's hand on it! What had worked on the Hunslet, with its dummy firebox shielding the servo from heat radiation, failed on the Bagnall with its huge, unlagged firebox.

What to do about it? Any other location low in the cab would obstruct

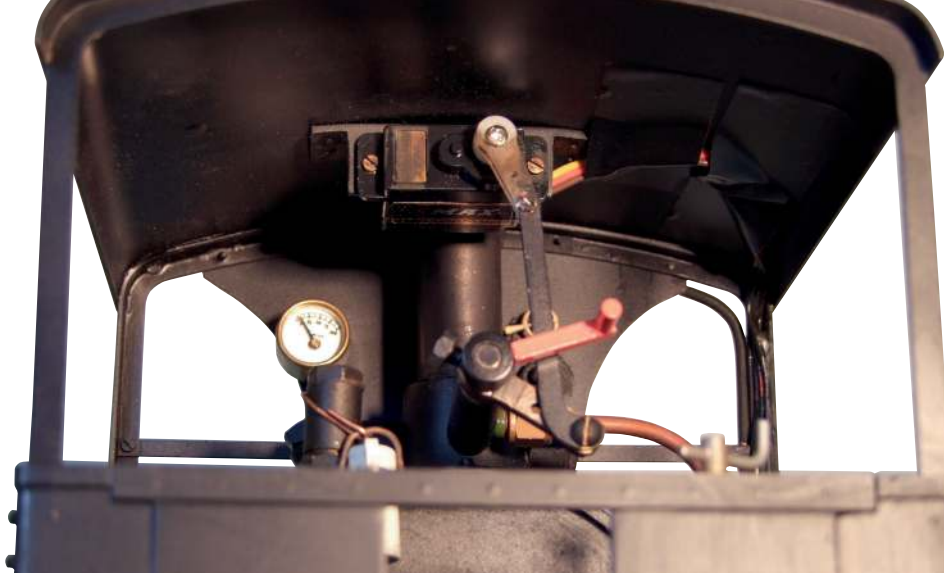


Top Left: The batteries and original position of regulator servo.

Left: The same view of the Hunslet batteries and regulator servo.

Right: Receiver fitted inside the right-hand cabside 'pocket'. Note aerial passing through hole in rear.





the only space available for a driver figure, or be equally exposed to heat.

Dave's ability to 'think outside the box' came to the fore. "How about putting the servo under the cab roof?" he said, "It might be cool enough there". I was somewhat incredulous at first; we were, after all, trying to keep the r/c gear hidden. The cab roof is, however, a deep semi-ellipse in section and a spare servo, temporarily stuck in place with Blu-Tac, was indeed invisible from normal viewing angles.

Although the receiver had not failed during the short test run, we doubted that it would survive a longer run on

a hotter day. Experience with those in other locos had shown that they tend to stop working at about 40°C ambient temperature, easily reached inside a black loco standing in the sun. The good news is that, unlike our cooked servo, they usually recover after cooling down.

We decided to try to provide as much ventilation as possible for the radio gear. A row of holes was drilled near the top of the inner side of the dummy bunker, which would now house just the batteries, while the right-hand cab side had a large square hole added, near the top of the enclosure housing the receiver. To allow cool air to be drawn over the receiver by convection, another hole, as big as possible, was cut in the footplate beneath the front of the right-hand cabside.

While this was going on, Dave had hunted down some rather larger but much more powerful servos so, as well as using one of these for the

Left: Receiver aerial fully installed.

Above: The larger regulator servo installed in cab roof.

repositioned regulator servo, we squeezed one in on the reverser as well; this one actually operated the lever!

Installing the regulator servo was straightforward, and as soon as I had finished the modifications, we tested the loco again.

The July day was one of the hottest of the year, with bright sunshine and a temperature in the high 20°C in the shade, but the radio and servos survived several 'full gas tank' runs.

Failure of the receiver of battery diesel 'Ajax', which had been left standing in the yard in full sun whilst we were testing the Bagnall, convinced us that the Bagnall's problem can now be considered to be cured. Fortunately, the receiver on 'Ajax' recovered after cooling down. ■



The replacement, larger reverser servo.



Looking at the rear of the finished locomotive.

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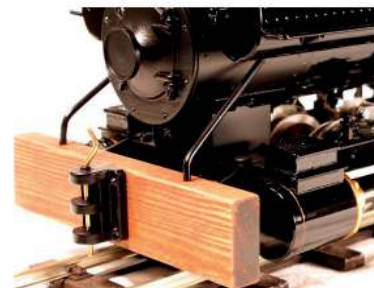
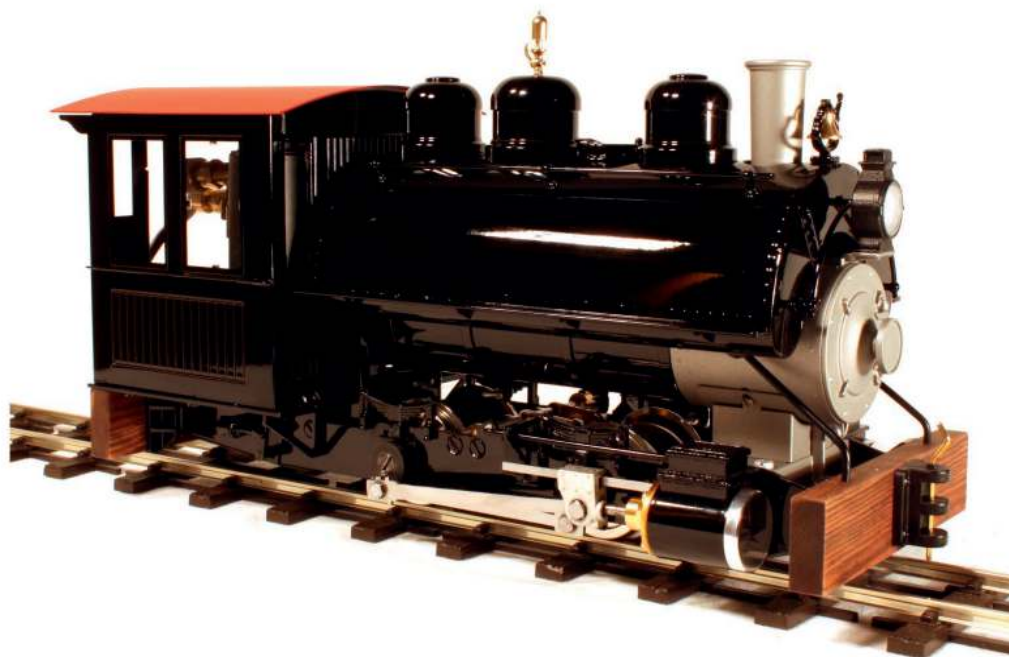
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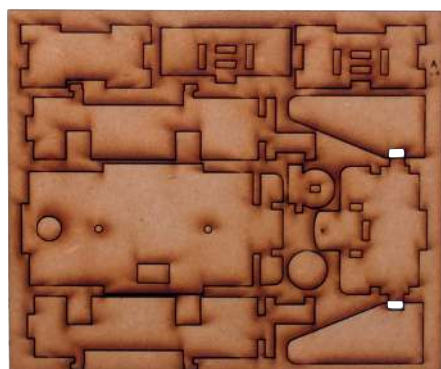
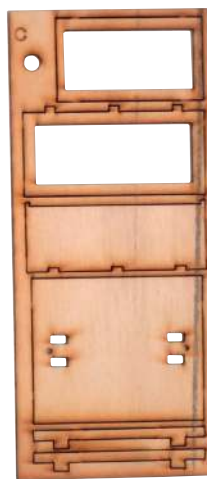
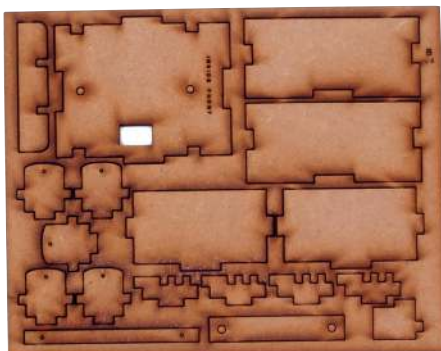
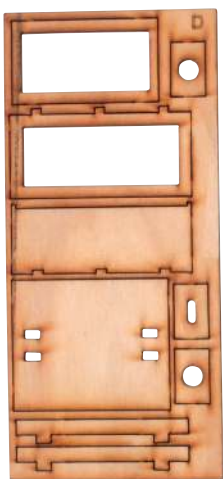
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Keen, lean and very, very green



Mark Thatcher builds and details a 16mm 'Greenbat' loco from Bole Laser Craft

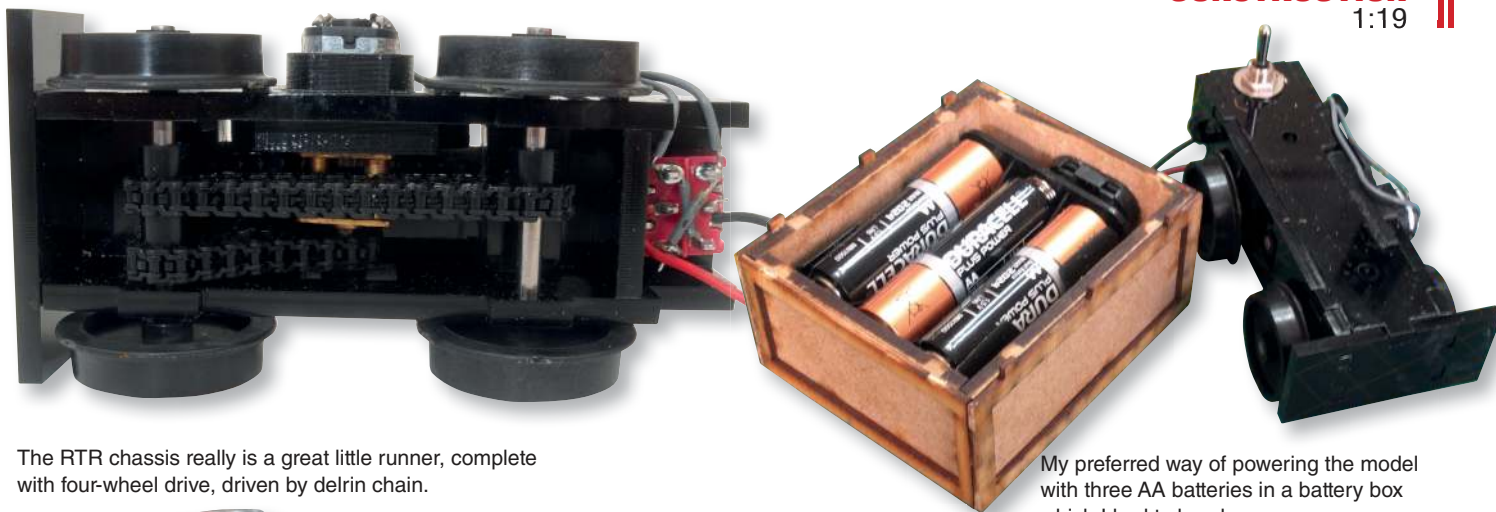


When I spied this little model from Bole Laser Craft I naively thought that 'Greenbat' was their own description. After all, the model is green and battery powered, so it was a reasonable, if erroneous, conclusion to jump to.

I should have known this was an error on my part, as in the 1990s I used to live within a stone's throw of the Peak District and did actually stumble across the Steeple Grange Railway during one of my many motorcycle excursions to that area. The Steeple Grange Railway is located near Wirksworth in Derbyshire, and it is here that the prototype 'Greenbat' resides.

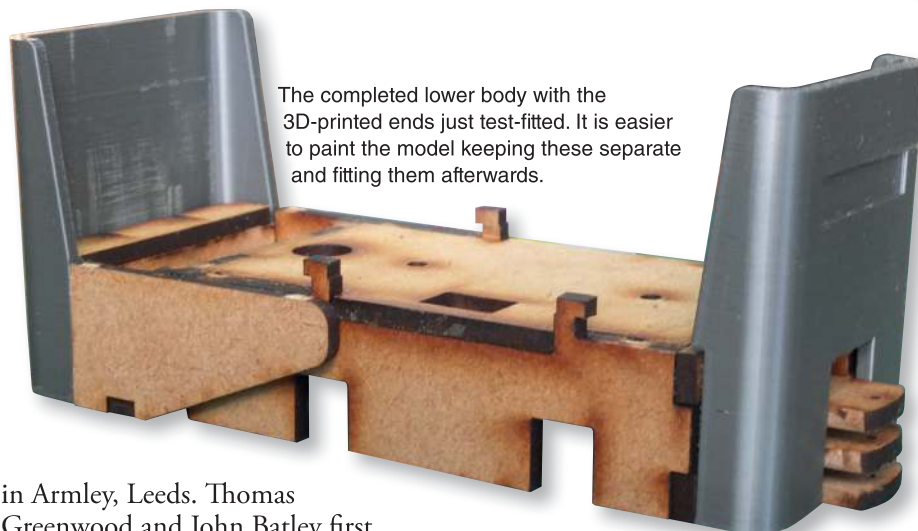
'Greenbat' was the trading name of the Greenwood & Batley Company

This photo call of the kit of bits shows that you will receive a complete kit with nothing more to add, unless you want to add rivet detail or model more detailed aspects of the prototype like the vacuum hoses or gearbox.



The RTR chassis really is a great little runner, complete with four-wheel drive, driven by delrin chain.

My preferred way of powering the model with three AA batteries in a battery box which I had to hand.



The completed lower body with the 3D-printed ends just test-fitted. It is easier to paint the model keeping these separate and fitting them afterwards.

in Armley, Leeds. Thomas Greenwood and John Batley first set up their business in 1856. The company specialised in electric and battery-powered locomotives for use predominantly in mines, or other environments that maybe were hazardous, or where the fumes from a diesel or steam locomotive would not be practical.

Greenwood & Batley's first successful venture into locomotive building was in July 1927, when five 4hp (3.0kW) battery-electric narrow gauge locomotives were completed for Edmund Nuttall's Mersey Tunnel contract. These locomotives proved very reliable and a total of 31 G&B battery-powered locos were used on the Mersey Tunnel construction which commenced on the 3rd of April 1928. The name 'Greenbat' seems to be a generic term which embraced many varying designs of these locos over the years. The one modelled here entered service in 1961.

This model has been designed by Harry Billmore and is a faithful representation of the real thing. It is not super-detailed, but I could see looking at pictures of the actual loco that it would be a fairly easy task to add rivets and bolt heads where applicable, build the small gearbox and lever and

to add vacuum pipes, plus a front light. The driver's seat is included, as are the rather nice 3D-printed name plates and axle boxes. I also noticed that the axle boxes were, at some point in their life, highlighted in yellow on the prototype.

The body is largely made out of either 3mm MDF or plywood which has been laser cut to a good standard. Parts need easing out of the frets using a sharp knife to cut through the pips that retain them. Two 3D-printed cab ends and even the coupling hooks and three-link

chains are included. After I had started the build, Steve at Bole Laser Craft sent me replacement cab ends as they have just invested in a new 3D-printer and the results from it are better, although to be honest I thought the originals as supplied were very good anyway. But of course I used the improved ones in this build.

FOUR WHEEL DRIVE

The stand-out moment for me was when I took a look at the ready to run (RTR) motorised chassis powered by a 12V micro-motor. I have spent many hours fettling chassis kits with a variety of success and plenty of failures, so for a bodgeller like me to see this RTR chassis was a great relief.

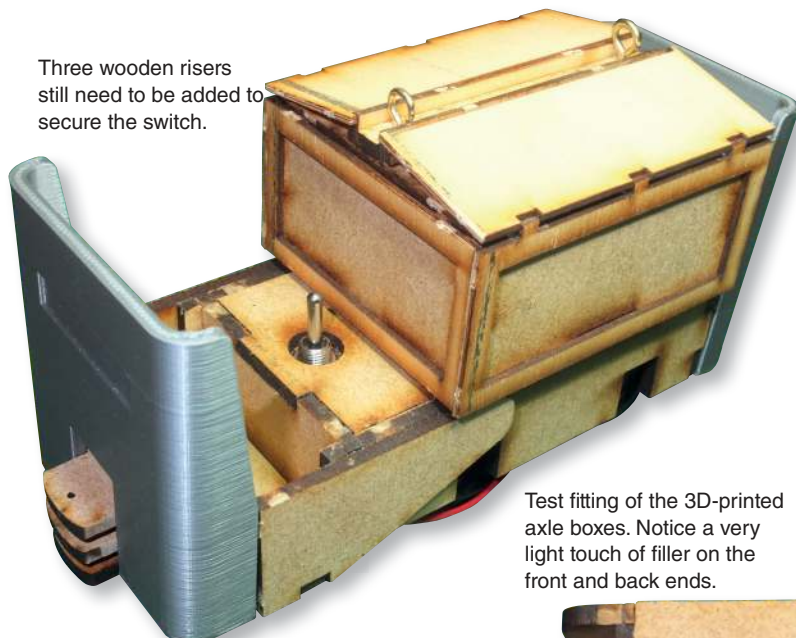
The chassis has a tiny motor and is really well assembled around high impact plastic frames and buffer beams. All the wiring is done so all you need to do is to clip a 9V battery onto the battery terminal, throw the switch, and off she trundles in either direction.

Both axles are driven by Delrin



The location of the battery box. The prototype had a step between this and the front end of the loco. This will be modelled later.

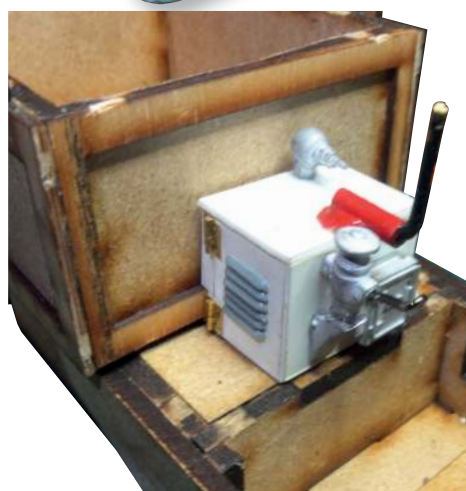
Three wooden risers still need to be added to secure the switch.



Test fitting of the 3D-printed axle boxes. Notice a very light touch of filler on the front and back ends.



My added scratch built details to the ends of 'Greenbat'.



The scratch built removable gear box cover and control unit, whilst not strictly prototypical, does hide the main switch.



though. I suspected these may be hinged on the real thing.

I found it a tough job to separate the parts from the frets as the securing tabs were far thicker than on Bole's Ddaullt station kit seen in the January issue of **Garden Rail**. After snapping the third scalpel blade I resorted to a Stanley knife for this task.

I glued the wooden and MDF parts with some really cheap craft PVA glue I found in our village shop. I ran out of glue for another project and just grabbed this as a stop gap. It is utterly brilliant; the best PVA I have used in fact! The brand is Craft Planet and it cost a whole £2 for 240ml (why not

250ml I don't know) of the stuff. Also the nozzle dispenser allows just the right amount of glue to exit the bottle and it does not block up either. I went back to the shop later on and cleared their shelves of this amazing glue.

THE AVERAGE MODELLER

The body assembly is made up of what I would describe as an 'over-chassis' with solebars and buffer beams that sit over the running chassis. The two 3D-printed ends then fit on each end of this assembly. A little light filling and filing on the corners of the body helped hide any joins from the interlocking components, but really was not that necessary.

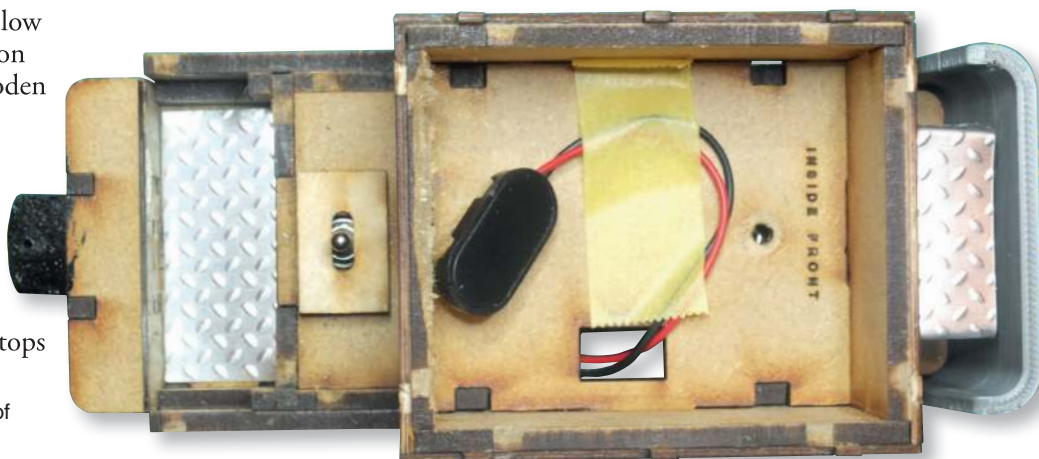
Finally the completed body locates over the running chassis to finish things off. I noticed that in real life 'Greenbat'

chains running from the central motor drive, so you get a four wheel drive model which will improve traction and performance for sure. The instructions explained that with a 9V battery attached the loco should achieve a scale fixed speed of 8mph. When I tried this I felt that it was a bit too fast, but it is an easy job to get a twin AA battery box with a similar connector if you want to slow the model down.

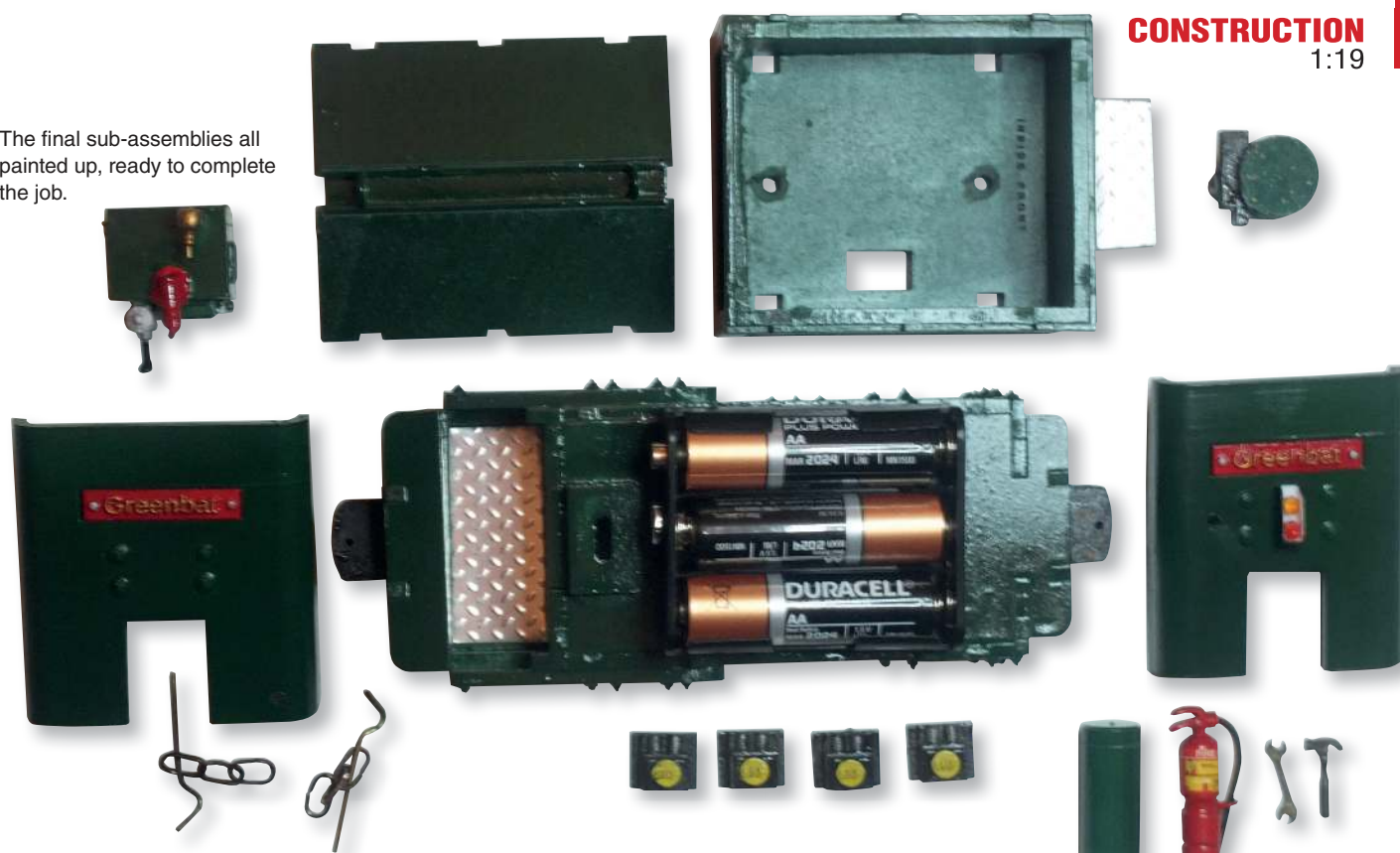
I know from previous use of MDF that it takes paint well, but also know that plywood does not, so a quick blow over of my favoured U-POL adhesion promoter was applied to all the wooden and MDF components whilst they were still in their frets.

Once dry, I started with the battery box. This has four overlays to provide the outer edge detail to this part, as per the prototype. The battery cover will need to be painted before you add the sloping tops

Here you can see the main test assembly of 'Greenbat' prior to painting.



The final sub-assemblies all painted up, ready to complete the job.



once had the coupling areas picked out in black, and it was far easier to achieve this by painting the separate components that made up this assembly prior to building it. I did decide to build the battery box and lower body, keeping them separate until the final assembly stage, just test-checking the fit of one to the other as I went along. One little warning: when you fit the RTR chassis to the body, make sure the wires from the motor and those to the battery terminals are looped through their securing hooks on the chassis otherwise you risk trapping them.

I must stress that this kit is not difficult for the “average modeller” to build. I have messed around with toy

trains for most of my life in some form or other, but have yet to define who that average modeller is, and really wonder if they do exist. I mean even good ol’ David Attenborough has never discovered the lesser-spotted average modeller.

NO WONKY NAME PLATES

With most of the assembly done it was time to turn my attention to creating some of the smaller details that were not included in the kit. A small piece of material was added to the round driver’s seat to offer them a little more padded comfort, and the gearbox and front light assemblies were fashioned out of off-

cuts of Plastikard. Vacuum brake hoses were made by winding thin wire around slightly thicker flexible hose and adding a small nozzle and lever.

The rear of the model also had brake detail added. I scratch-built the small gearbox (which hides the ON/OFF switch) from Plastikard and added various fittings I had to hand. I also noticed from reference photographs

The faux gearbox was added which is a push fit to hide the operating switch.

Braking gear was also added with parts out of my spares bin.



The green can as per the prototype was a bit of brass tube and a cap turned down to fit on my lathe.

that latterly, there seemed to be a small engineer's platform between the front end of the loco and the battery box quickly made from scale tread plate over a wooden former. This made a nice contrast between the shiny metal and the rest of the predominantly green body.

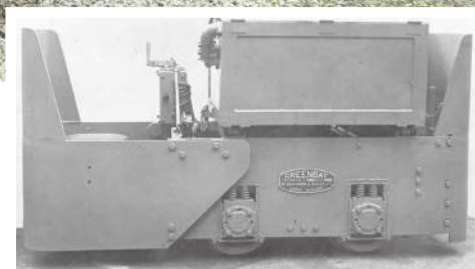
Next, the various bolt heads and rivets were modelled using scale rivets from Cambrian Model Rail. I did also add extra vent detail to the gear box housing but this was not present on the prototype.

The model was finished in Halfords Vauxhall Pine Green.

The final job was to paint the rather nice included 3D-printed name plates. The background should be black, the raised letters red, and the two bolts securing the plates to the body are silver. However I tried to replicate this, I could not get red over black to work, so mine are brass over red. Sometimes life is just too short. Setting these into the body ends is made very easy as there are recesses provided in the ends for these to drop into avoiding ugly wonky plates.

CAPTIVE NUTS

Final assembly was simply to attach the battery box to the RTR chassis. When you build the battery box, the base is thoughtfully labelled to orientate the part. You will need to countersink the two holes for the screws used at this stage fit flush to the bottom of the box. These push through the pre-laser cut



Top: Greenbat on the line at the Steeple Grange Light Railway. (Photo: John Morrissey)

Above: GB 6061 works photo is great reference shot. (Photo: Adrian Booth)

holes in the floor and screw into two captive nuts in the RTR chassis, creating a solid and accurate fit between these two components.

As for as my own battery power, well I kept my options open. I chose to use three 1.5V AA batteries giving me 4.5 volts to run on my very small 16mm demonstration layout 'High Force' fitted in a battery box with the same clip-on PP2 connector. If I want more speed, it is an easy job to swap this battery box out for a 9 volt battery if I desired. The box was a tight fit into the battery compartment and just needed the inside of filing out by 1mm at one end.

This kit from Bole Laser Craft was a pleasure to assemble, and if you only wanted to build the kit without any of my suggested embellishments, you could have this up and running in an evening or two.

Out of the box it is very good indeed with no ill-fitting parts and excellent instructions with plenty of exploded diagrams and pictures to guide you accurately through the build process. If like me, you prefer to add a little more detail, this can be easily achieved and results in a pretty accurate representation of the real thing.

Either way, you will end up with a reliable runner and won't need to be fiddling around with your soldering iron and ammeter to get the thing to move, for an "average modeller" like me that is a real benefit.

Of course some "above average" modellers, may well just buy the RTR chassis and choose to use this as the basis for a scratch-building project of their own.

Thanks to Tim Jeffcoat, the society secretary at the Steeple Grange Light Railway for providing some

great reference pictures and also to John Morrissey and Adrian Booth for allowing me to reproduce their photographs. If you would like to delve further into Greenwood & Batley's history, Adrian has written a fascinating book: *Greenwood & Batley Locomotives 1927-1980*. ■

Garden Rail Resource

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The vacuum hose and directional light was added to the front.

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PK38767 Texaco Bogie Tank Wagon 1971



PK38768 Christmas Flat Wagon with Pick-Up Load



PK38769 UP Bogie Flat Wagon w/Chevy Nomad Load



PK38770 PRR Bogie Stake Wagon Set (2)



PK38771 D&RGW Bogie Stake Wagon Set (2)



PK38900 CSX Rib Sided Hopper w/Coal Load



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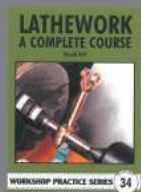
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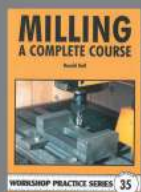
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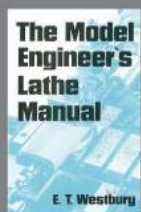
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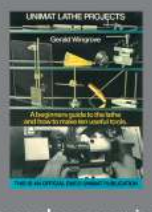
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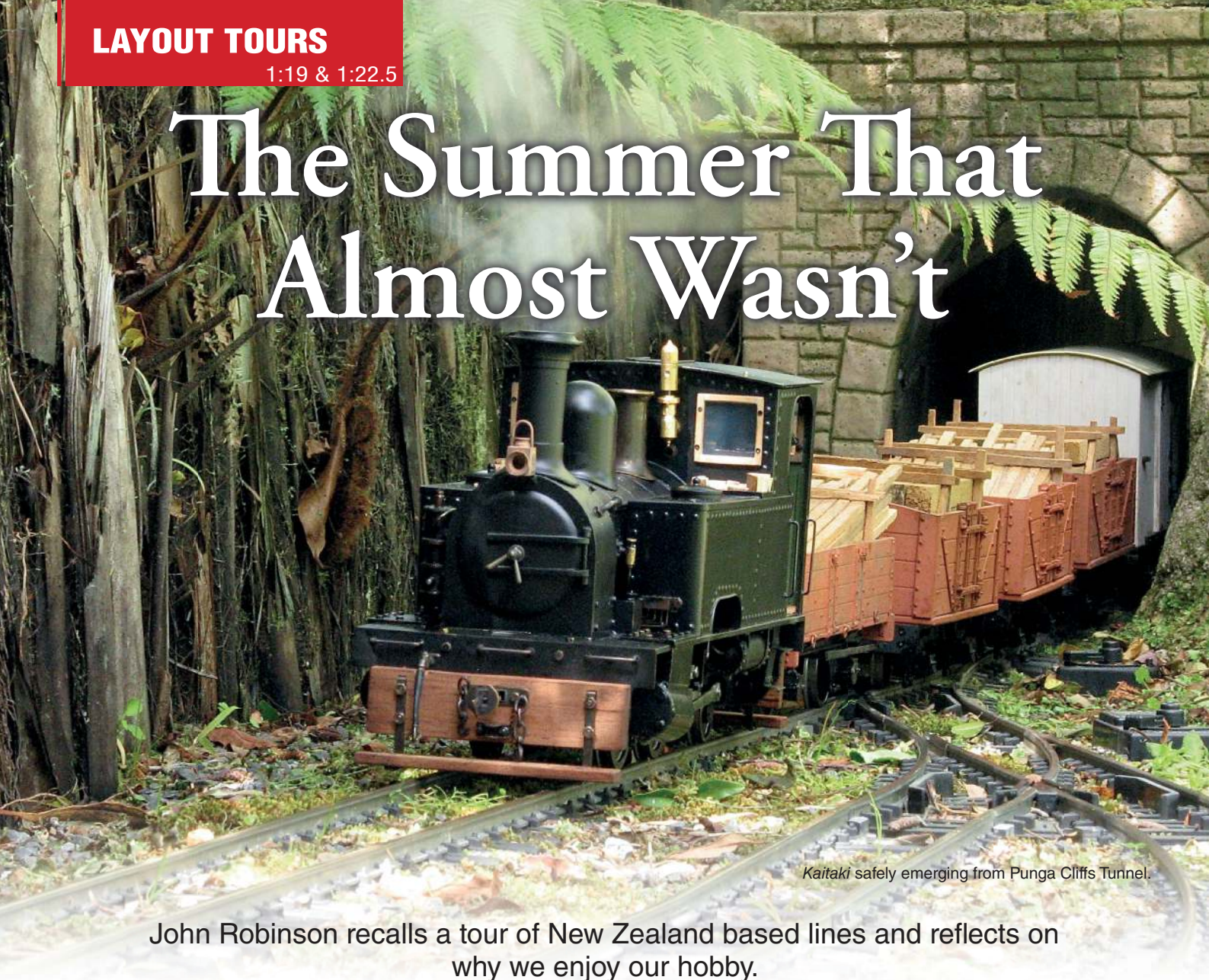
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The Summer That Almost Wasn't



Kaitaki safely emerging from Punga Cliffs Tunnel.

John Robinson recalls a tour of New Zealand based lines and reflects on why we enjoy our hobby.



Heading out of spring, one always hopes for another of those childhood summers of endless warm calm days, perhaps tinged with the thought that just some rain would be nice so we don't have a drought.

Pleasant long evenings in the garden, a train running to celebrate a day of labour in the garden, maybe shared with a mate or two and glass of something suitable. That is how summer should be and what we expect in New Zealand, Aotearoa, the Land of the Long White Cloud.

Something went wrong though over the summer of 2014. It was more like the land of the long rain cloud with a summer an Englishman would feel right at home in.

I had hoped, come the end of that summer, I'd be filled with sunny

It's not always the trains that provide inspiration, the wharf scene on Lloyd Dickens Castletown Railway, visited during the 2014 NZ Garden Railway Convention, ticks all the boxes.



Dan Hughes' Upper Plain Railway, another from the Convention, is currently run with battery powered steam outline. But after several visiting live steamers ran here during the Convention, and at a later running day, Dan is soon to be adding a steamie or two to his fleet. A risk of running days, the visitors provide inspiration to the railway's operator too!



Above: Warren Stringer's Moa Pass Railway is nestled under trees is the sort of place you'd love to take photos, sit back drink tea and enjoy cream scones while chatting with fellow garden railway fans; and that is just what we did during the Convention. Warren's clever layout design allows two independent loops or by switching in two short slip roads one long circuit, something to file away among the ideas for a possible extension of our railway.

Left: Brian Russell's railway provided much early inspiration and without those early days spent getting a real feel of an operating garden railway our railway wouldn't be giving the pleasure it now does. Brian is pretty much an "out of the box and run" modeller, and that in no way detracts from the pleasure his railway provides.

inspiration to scribble off some inspired words about the progress on the H&MGR (Hannah & Michelle's Garden Railway) and a good number of suitable photos to illustrate the joy of garden railways in my little corner of the world, but it was not to be. Not that there wasn't some running and a sprinkling of sunny days to enjoy but it was hard work at times.

Instead, I have spent sometime reflecting just what it is that produces

Clearly trains did not run often enough this past summer. I think the resident tunnel spiders on the H&MGR may have come off second best after Kaitaki steamed through, but only just!



During a late evening steam up if there was still any of those tunnel spiders in resident they would have been well and truly steamed alive by Ian Webb's visiting Shay.

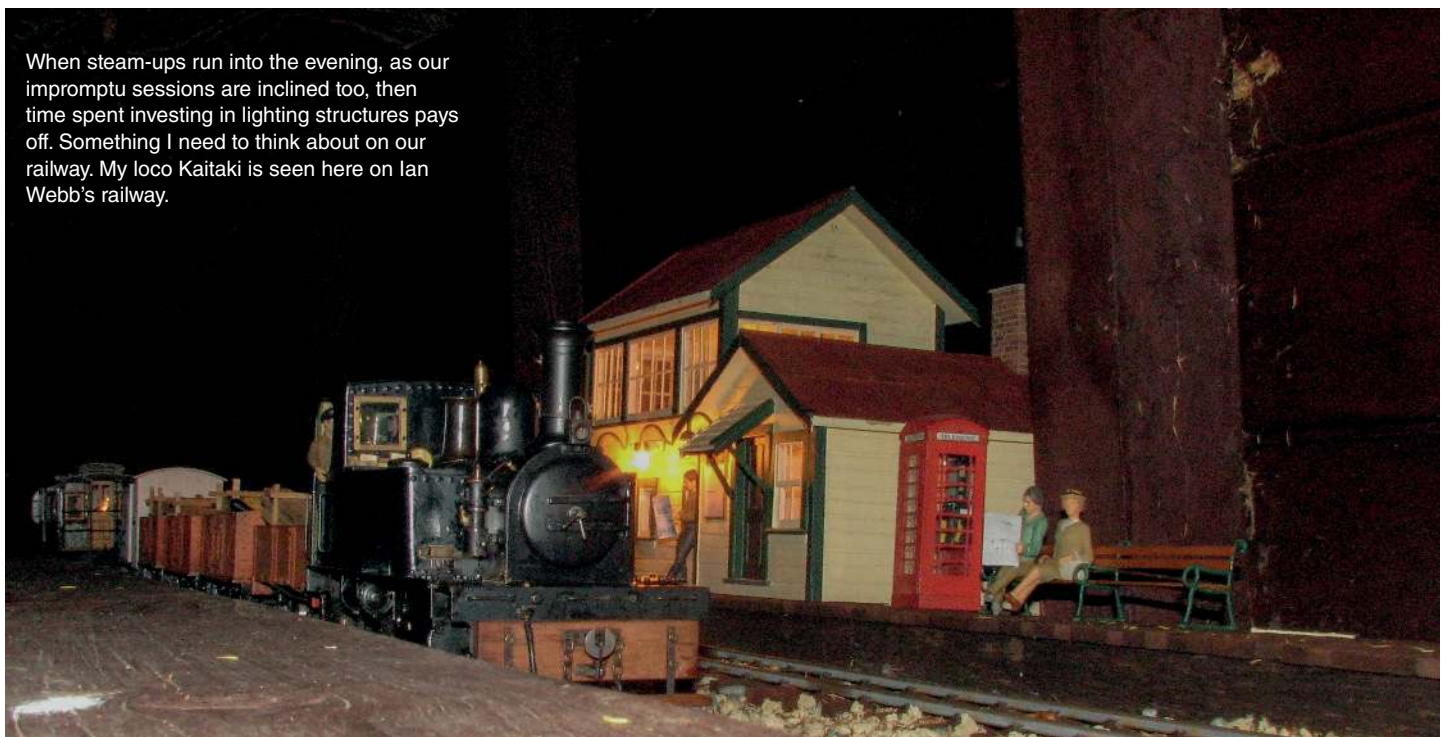
Lee and Christine Collett's Rosebrook Railway used Lee's background as a sheetmetal worker to build a layout that uses sheet metal troughs as a raised trackbed to hold the track and ballast around a mature oak tree. With planting and walling well integrated at first look you'd be hard pressed to tell the railway is running on a raised track bed. It is also a good example just how the use of minimum radius curves doesn't need to detract from the overall look if done well.



the highlights and pleasure, particularly over a summer, in this hobby of garden railways we share.

Years ago as our family embarked on our garden railway journey I started with reading issues of a suitable magazine found in the local model shop and a lot of time browsing the Internet. I formed ideas in isolation and felt I knew the direction a future railway would head. Thankfully one Saturday there were a couple of already committed garden railway chaps in the local shop and I was invited come and visit their railways. Oh did I learn a lot! I quickly ticked off some assumptions as correct and binned others after hours spent watching and driving their trains.

When steam-ups run into the evening, as our impromptu sessions are inclined too, then time spent investing in lighting structures pays off. Something I need to think about on our railway. My loco Kaitaki is seen here on Ian Webb's railway.



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As you go round the show you will see many specialist suppliers offering a vast array of garden railway products including locomotives, rolling stock, track and accessories. Make sure you try to visit them all to see the full range of products on offer.

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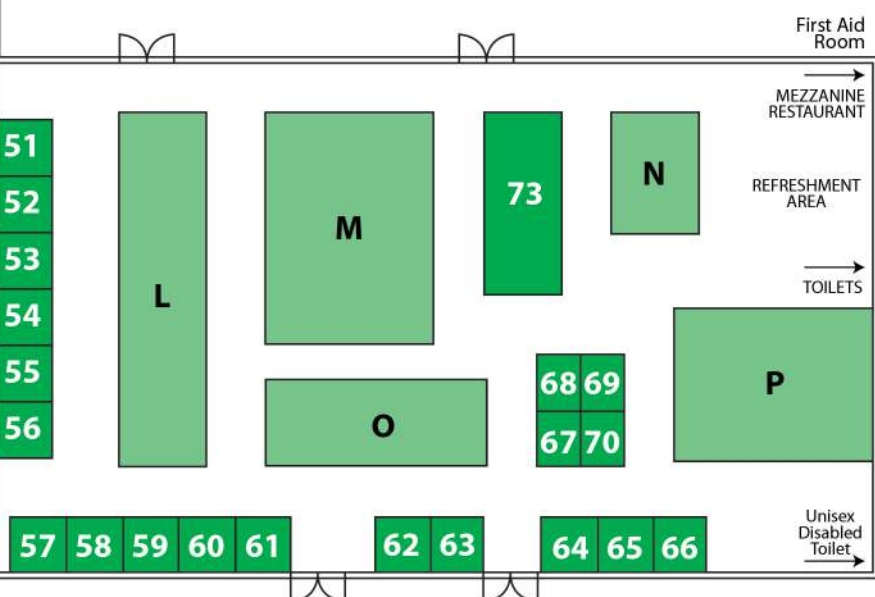


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Floor Plan



LAYOUTS

16mm Association Modular Layout	K
Ballygornal Junction	C
Buckinghamshire Garden Railway Society	L
G Scale Society Publicity Layout	I
Gauge One Vintage Tinplate Trains Group	P
Hambleden Valley Railway	O
Hampton End	D
Lough Motive Power Depot	A
Mendip Vale	M
Roche Junction	N
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Above: Detail this good is inspiring no matter what your preferred flavour of prototype is. Ian Webb's Whits End station after dark.

Just to show it's not all about live steam, how is this for a different approach that works really well. Dean Ellicock's Scraplands Railway could be described in the current vogue term of "minimalist". Something I wouldn't have thought you could describe a railway as in a complementary fashion, and yet Dean has done just that and it works. This was a further railway visited during the Convention.



The Hydrangea Tramway, the second of Lee and Christine Collett's three railways on show at the Convention, could be anywhere in Europe you want it to be. Sitting on the opposite of the driveway from their Rosebrook Railway, squeezed between the house and driveway it's a clever use of a space that might otherwise have been filled with just an annual border. Instead there is a small layout with detail to the level of a diorama.

Those chaps are now great mates and our family's railway is the better for those early visits. I continue to read a range of garden railway magazines, looking forward in particular to the third Thursday of the month, hoping **Garden Rail** reaches my mailbox on time!

Each time I read the postings of a "newbie" on an Internet forum asking advice, full credit to them for asking, but the best advice I could give is find some local operating railways to visit even if it means a hour or two's journey and join a local area group (G Scale Society, 16mm NGM, Gauge 1 Society etc.).

Perhaps the biggest gem of inspiration I got from those early visits was just how much more social garden railways are compared to the small-scale model railways I'd been familiar with. Not that model railway chaps are unsocial, but there is something about sitting out there in the sun, conversation drifting on and off trains with a brew in hand that garden railways have over standing



operating in the confines of even the best model railway room.

It does distress me a bit that at times that our Wellington Garden Railway Group running days are not always well supported, and I'm sure I'm not alone in this. It's now not just the fun of seeing lots of different trains running that draws me to attend running days, it's the pleasure of the camaraderie too. Write-ups and photos in a local club newsletter never do a

running day full justice no matter how well they are written.

I think too that with our railways operating in a real growing landscape, rather than a crafted plaster landscape, there is flexibility and also freedom from rivet counting.

Certainly out in the garden there is still plenty of welcome scope to follow and model well a specific prototype, but there is also freedom to just run trains and develop something that looks right

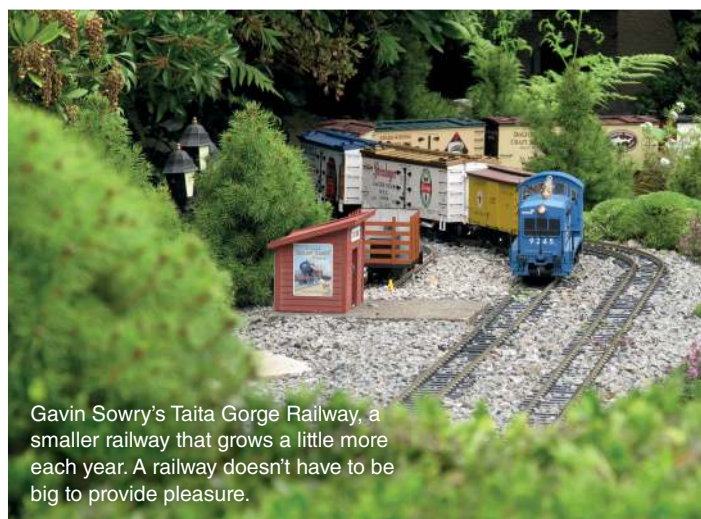


Above: Just a few doors up the road from the Colletts Jim McIntyre has a railway built for running big, modern unit trains. To achieve the length of mainline that is needed to run these American trains Jim, like several of the railways on show at the Convention, is perfecting the use of aluminium bar as rail set into notches cut into wooden sleepers on a slightly raised timber track base. There is some fine tuning still being sorted to perfect the system, obviously not suited to track power, but Jim as is running Aristocraft/Crest Revolution controlled battery power that is not an issue.

to the railways owner. It's better to have something running of mixed origins than nothing at all. It must though make it hard for our Editor to provide a mix of articles that will cater to all tastes. For example I have no illusions that my writings appeal to everyone, in fact I'm quite happy if you read something and think "that's not how I'd do it" but from that I do hope thought that a seed is sown and you then get inspired to do it your way. I doubt I've ever really had an original idea; I just built on motivation drawn from other people's ideas.

The Wairarapa Garden Railway Group hosted the 2014 NZ Garden Railway Convention. Our conventions are rather small boutique affairs compared to either those big USA ones or a UK show for that matter. But with 10 railways to visit at the Convention that year I think it was a pretty well catered boutique.

Visiting that number of railways over two days really highlighted just how many different ways there are to have a garden railway. It wasn't just the diversity of trains but the many different ways to build the railway infrastructure that was inspiring. Again, if there is something like this within reasonable travelling distance and you don't go you really do miss out.



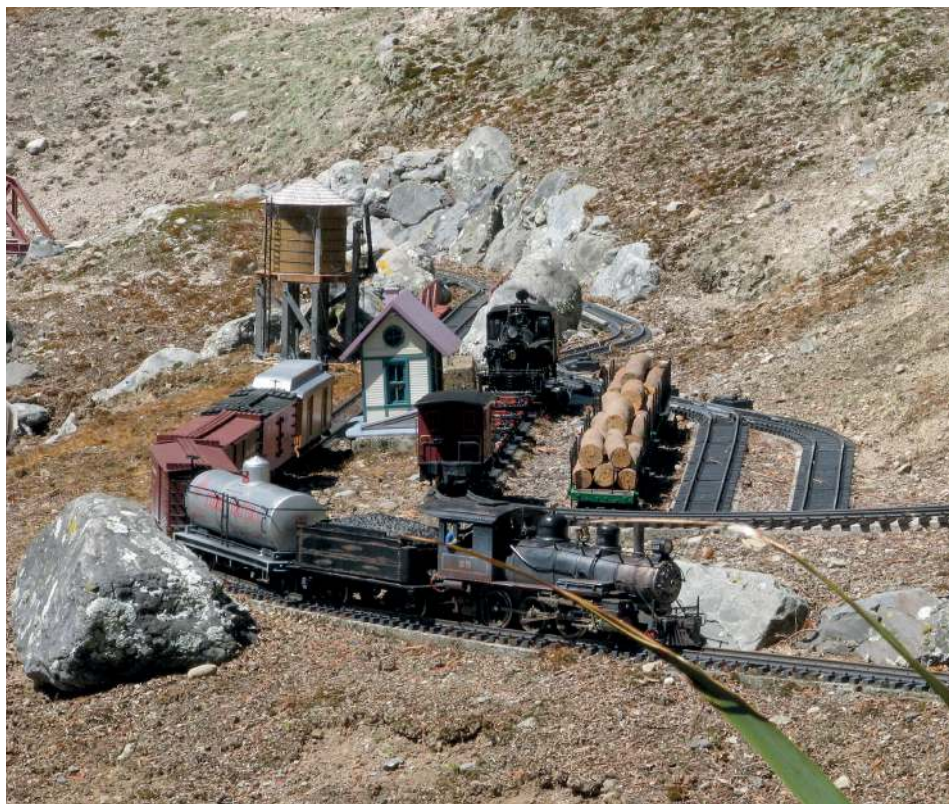
Gavin Sowry's Taita Gorge Railway, a smaller railway that grows a little more each year. A railway doesn't have to be big to provide pleasure.

So I guess the overriding reflection is that it is the sharing this hobby with others that gives me the best inspiration and pleasure. I'm a relatively introverted person so I've surprised myself in just how inspired I get attending running days and just how much pleasure I feel after spending time in the company of mates with a train or two in steam when we have an impromptu steam up.

There is still a place for quite evenings just myself and a battery powered train circulating to accompany my thoughts, and a time too for running Hannah and Michelle's LGB starter set trains we started with. I hope though next summer will be a proper summer, there will be plenty of running days and lots more steam ups being shared.

As a postscript, having sorted through photos from that summer to illustrate this narrative, it appears there were a few more trains run than I thought. Perhaps it's just I wanted an excuse to share some photos; I hope you don't mind and will find at least some inspiration and pleasure from them. ■

The last stop on the Convention tour was Jeremy Were's red Rock Railway that is themed to steam era narrow gauge somewhere in the American mid west. His railway is a labour of love with many cubic metres of spoil imported to create rolling hillsides on what was once a flat pasture. Rather than lay track in ballast Jeremy has made his own precast concrete track base. To me it feels like a lot of work, but that's the neat thing about this hobby, there is more than one right way to build and run our railways.





Indoor mountaineering in G scale

Gradients too steep for your locos? No problem Martin Eady brings on the rack.

The Whiteleaf Light Railway has been described as an attempt to show in an indoor setting what a garden railway looks like. As we've shown in previous issues of **Garden Rail**, the layout can be reconfigured to suit each exhibition and to keep things interesting for both operators and visitors, we are always looking to add new features.

LGB manufacture a rack rail which fits on to their 45mm gauge track. Both steam and electric outline rack locos are available to operate on it. This is normally an outdoor feature, but we have constructed an indoor 1 in 4 line to demonstrate rack operation which climbs from the 2' height of the rest of Whiteleaf to an elevation of 6'.

There are few venues which can

make available a large enough space to accommodate such an extensive structure along with a layout, but for those that can, the combination offers some interesting operating possibilities. Although it is possible to build a complete circuit, most modellers prefer to have an end to end pattern and that's what we have chosen.

The length of the rack including top and bottom stations is almost 40'. This section can then be attached to the rest of the layout at a convenient point. At the Peterborough Festival of Railway Modelling in December, the total area covered by the layout was 60' x 12', giving a run of more than 120' on a 'U' shaped configuration.

For through operation, interurban trams run from Town Square to arrive at Bryant's Bottom, where a trailer can be detached and coupled to a rack locomotive. This can then be



Top: Furka Oberalp climbing the rack. All photos by Ben Schlegel.

Left: Wendelsteinbahn No 4 at Bledlow Ridge, the summit of the



At the foot of the incline, Town Square station.

Right: Seen at the Festival of Railway Modelling, Peterborough, in December 2019. You can see the rack section rising up at the back of the layout.



propelled up the gradient to Bledlow Ridge. Experience has shown it is more convenient to operate the rack as a separate section, making connections with services to the rest of the layout and avoid the shunting.

Bledlow Ridge station has two platforms so that an intensive service can be run. A resistor is built into the current supply to these roads to slow trains as they approach the terminus. It is essential to prevent overruns at the elevated location so both roads incorporate dead sections at their ends. Using diodes, these sections can only be energised in the downward direction.

Another resistor prevents excessive speed as the train descends. An analogue controller is preset to a suitable speed and operation is through a simple selector switch.

Town Square has crossovers for running round trailers, and sidings for spare stock, including light goods vehicles. A frequent tram service was operated from here to Lacey Green, which has a tram station, turning circle and depot.

An interurban service ran from Town Square to Penn St bypassing Lacey

Green. Penn St has a passing loop and several sidings. As and when required trams could be extended from here over the semi circular viaduct to Bryant's Bottom. In this way a variety of services could be operated to keep our audience entertained and our operators busy.

Normally four control positions were staffed, with analogue operation throughout. In the event of power failure radio controlled battery powered trams were run as a back up.

Whiteleaf is modular, so the same configuration may not appear again for some time. We can vary it to fit the available space, subject to a minimum length of 30'. ■

Furka Oberalp No 21 at Bledlow Ridge.



See the Whiteleaf Light Railway at the following shows:

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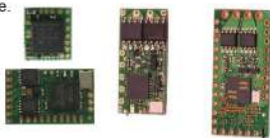
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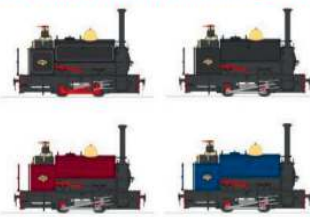
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Event: Midlands Garden Rail Show

Venue: Warwickshire Event Centre, A425, Southam Road, Leamington Spa, CV31 1XN

Times: 10am to 4pm

Admission: Adult £9.00 Senior £8.50 Child (5-14) £4.50 – Discounted tickets are available on-line.

Web: www.midlandsgardenrailshow.co.uk

Layouts: 16mm Association Modular Layout, Ballygornal Junction, Buckinghamshire Garden, Railway Society “Whiteleaf Light Railway”, G Scale Society Publicity Layout, Gauge 1 Vintage Tinplate Trains Group, Hambleden Valley Railway, Hampton End, Lough Motive Power Depot, Mendip Vale, Roche Junction, Stanley Midland.

Trade: Accucraft UK Ltd, Airframed Glass Display Cases, All Components, Anything Narrow Gauge, Aster Hobbies, Barrett Steam Models, Blackcat Bridges, Bole Laser Craft, Bowande Live Steam UK, Brunel Models, Chalk Garden Rail, Chuffed 2 Bits, Coach & Wagon Works, FineScaleBrass (UK), Garden Railways Specialists, G S Model Supplies, Hafix Industrial Products, IP Engineering, John Sutton Books and Models, Just the Ticket, Loco Boxes, Malcs Models, Mamod Ltd, Model Earth Design, Modeltown, Sandringham Garden Crafts, SMTF Model Shop The Sparesman, Steve Currinn Books, Tony Green Steam Models, Vale of Rheidol Railway.

Additional info: Free parking. Refreshments.

Date: 14 March

Event: Narrow Gauge North

Venue: Pudsey Civic Hall, Leeds, LS28 5TA

Times: 10:30am to 4:30pm

Admission: Adults: £8.00, accompanied children under 16: £1.00

Web: www.narrowgaugenorth.org.uk

Additional Info: Layouts include the 16mm Poppleton Nursery. Hot & Cold refreshments available. Plentiful free parking. Disabled access to all areas except the stage. Proceeds to Sue Ryder Care - Wheatfields, Leeds.

SUBMISSION NOTES

Garden Rail welcomes articles submitted via posted disc, e-mail, Dropbox (or other large file sending system on-line). Please ensure that your name, e-mail address, telephone number and postal address for payment on publication are included. Send to phil.parker@warnersgroup.co.uk or to the contact address on the Contents page.

Articles should be submitted in MS Word or other word processing format. Please do not use fancy formatting or embed photos in the piece, these should be sent separately at the highest resolution possible and in JPEG format. Printed photos of a historic nature will be accepted. Captions for all photos should be included as part of the submission. You must own copyright to any material submitted.

Date: 21 and 22 March

Event: London Festival of Railway Modelling

Venue: Alexandra Palace, London, N22 7AY

Times: Sat 10am to 5pm. Sun 10am to 4.30pm

Admission: Adult £13 Child £6.50 Family (2+3) £39 - Discounted tickets are available on-line.

Organiser: Warners Exhibitions.

Web: www.world-of-railways.co.uk/information/the-london-festival-of-railway-modelling

Additional Info: Layouts include the G scale Whiteleaf Light Railway

Date: 4 April

Event: National Garden railway Show

Venue: Peterborough Arena, East of England Showground, Peterborough PE2 6XE

Times: 10am to 5pm

Admission: £12.50 on the door (under 18's and carers admitted free), however buying in advance (online from 9th December) will save you £2.00 per ticket.

Organiser: The Association of 16mm Narrow Gauge Modellers

Web: www.nationalgardenrailwayshow.org.uk

Additional Info: 19 layouts, in scales including 16mm to the foot, 7/8ths, 7mm narrow gauge, G, G1 and G3 running a mixture of live steam and electric powered stock. 100 trade stands including suppliers you simply don't see anywhere else as well as major manufacturers launching new products, information stands and heritage railways. Model of the Year Competition, Member to Member secondhand sales and lots more.

Date: 18 April

Event: Quarry day

Venue: Woodseaves Garden Plants, Sydnall Lane, Woodseaves, Market Drayton, Shropshire TF9 2AS

Times: 11am to 6pm

Web: www.woodseavesminirail.co.uk

Additional Info: The Woodseaves Lake Light Railway is a 32mm gauge line with over a scale mile of track located within the grounds of a garden nursery and miniature railway. Prototypical running for the theme is preferred (quarries). Parking and other facilities are on site. Refreshments available.



Chalfont at the Midlands Garden Rail Show 2019

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Building a budget radio control system



Chris New explains how he developed a cheap way to control his models.

After reading through a few recent copies of **Garden Rail** I noticed several people were asking for information on budget radio control

systems for locomotives or special effects.

A newcomer to G scale, I have been converting my second hand loco fleet

over the last couple of years to 2.4 GHz radio control. The size and presence of the trains was my main draw to the scale, a huge step up from N gauge!

It's been a bit of a leap into the dark without a torch at times. Is it possible to keep the cost of what can be an expensive hobby at an affordable level and not compromise on reliability?

Thanks to several other members of the G scale Society who have given help and advice, I now feel able to tackle most radio control problems as they arise.

THE BASIC EQUIPMENT.

Tx - A Transmitter, usually on 2.4GHz to send the signal to the loco. The more channels the more expensive but even cheaper units should have at least 3 channels.

Rx - A Receiver which is "bound" to the Tx so it can read the signals sent to it.

ESC - Electronic Speed Controller, this alters the speed and direction of the loco motor.

Motor - Buried deep inside the loco body somewhere, there will be a motor or two.

The variety of plugs and sockets you will encounter.

Standard JST

Mini JST 1.25

5.1 Plug

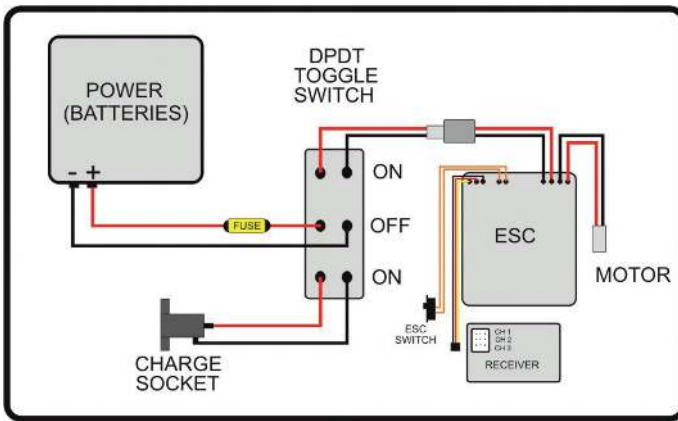
PP3 Snap Connector

5.1 Socket

DPDT Switch

Fuse Holder

5 Amp Fuse



Modifications to the transmitter.

Battery Pack - Power for the Rx, ESC, lights, sound and anything else in the loco.

Fuse - 5-10 Amp for safety, just in case two wires touch or something goes wrong the fuse blows and breaks the circuit stopping your loco catching fire. There are plenty of different types but a 5 Amp 20mm quick blow glass fuse will cost around 17p and a covered holder about 50p.

Switch - On-Off-On toggle switch isolate the battery pack or switch to charging mode.

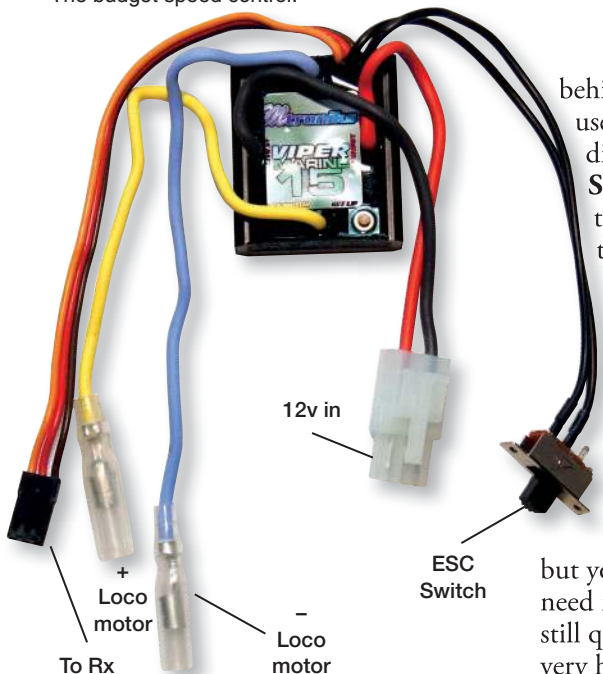
Socket - To take the plug from your battery recharger.

Plugs and Sockets - Pair of Japan Solderless Terminals (JST) a standard radio control connection. PP3 9v snap connector. Micro JST 1.25mm or 2mm 2-Pin (Male and Female only if you are fitting the RC in a wagon or carriage which will trail

The super budget components.



The budget speed control.



behind the loco. The ones Bachmann use are 2.5mm pitch, this is the distance between the pins).

Smart Charger - A plug in unit that works out how much charge to put into your batteries without over heating or overcharging them (overcharging certain batteries can cause them to catch fire). The one I use is by Bulldog and was £22.00

That's the shopping list done. Just look for the best deals on eBay for the components, the cheapest will come from Hong Kong/China but you will have to wait a while. If you need items quicker try Squires. They are still quite reasonable in price and are very helpful with advice, also they do

attend a lot of the model railway shows up and down the country.

I started with a Flysky FS-GT2B car hand held transmitter. This has rechargeable batteries in the handset which are charged from a USB or 5v socket, it also comes with a receiver, spare rubber hand grip, charging cable and a binding plug. Not bad for the princely sum of around £20.00 on eBay when dispatched from China. There are UK versions that will arrive quicker, but you will have to pay almost twice the price.

Once you have this setup or something similar you are then able to buy extra receivers for each new locomotive you add to your collection. The Flysky receivers are available for

around £5.50 each. Each receiver just needs to be “bound” to your transmitter before you start.

Remember that in practise you can only control one loco at a time with one transmitter even though you can bind multiple receivers to one transmitter. You might cause a bit of chaos running two locos on the same channel at an open day! The receivers can also be powered without an ESC by putting a 6v battery onto the VCC channel, good for remote operation of smoke or lighting effects in buildings.

So far we are at £20.00 for our basic three channel control system.

Channel 1 (Throttle) - Trigger that is sprung to return to centre off

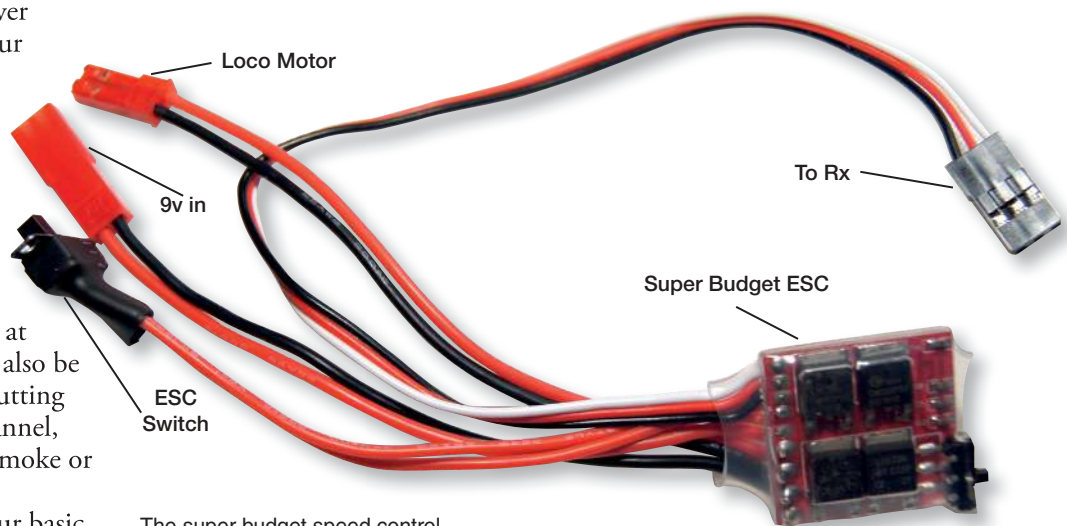
Channel 2 (Steering) - A wheel that is sprung to return to centre off

Channel 3 (Latching) - One click on - One click off

I plug Channel 2 into the ESC and then make a small modification to the handset. Undo the screw in the middle of the wheel and remove the whole thing so you can fit a fibre washer under it to hold the wheel, controlling the speed of loco, at whatever position you put it at. The washer stops the spring returning the wheel to the off position. I found a 14mm washer with an 8mm hole found in a pack from the Pound shop fits well, these are about 1.4mm thick and you might need to use two or three to succeed.

While the wheel is removed cut about 3mm off each end of the plastic stops to increase your locos top speed. Then reassemble the handset and you are ready to go.

Inside the locomotive with the super budget control.



The super budget speed control.

Next we need an ESC to control the power to our loco. Here you have to make a choice between super budget or budget.

Super budget will cost around £3.30 but will only work up to 9volts, fine for a small loco or shunter where speed is not important.

Budget will work with 12 – 14 volts, better for speed and more mainline style trains or large goods trains. These cost £22 -£28.00.

Full on 12v – 24v versions will cost around the £40 plus mark.

Try a search on eBy for “20A Bustopen ESC brushed speed controller for RC car truck boat” you should get quite a few results all in the £3 - £4.00 range. I usually buy three at a time as they take a few weeks to arrive from China. Postage is normally free and they are fantastic value for money.

When the parcel arrives you end up with a small circuit

board covered in clear plastic (25mm x 25mm x 7mm) with three cables with plugs on, two red (Female = power in, Male = Loco motor) one black (Receiver) and an on – off switch.

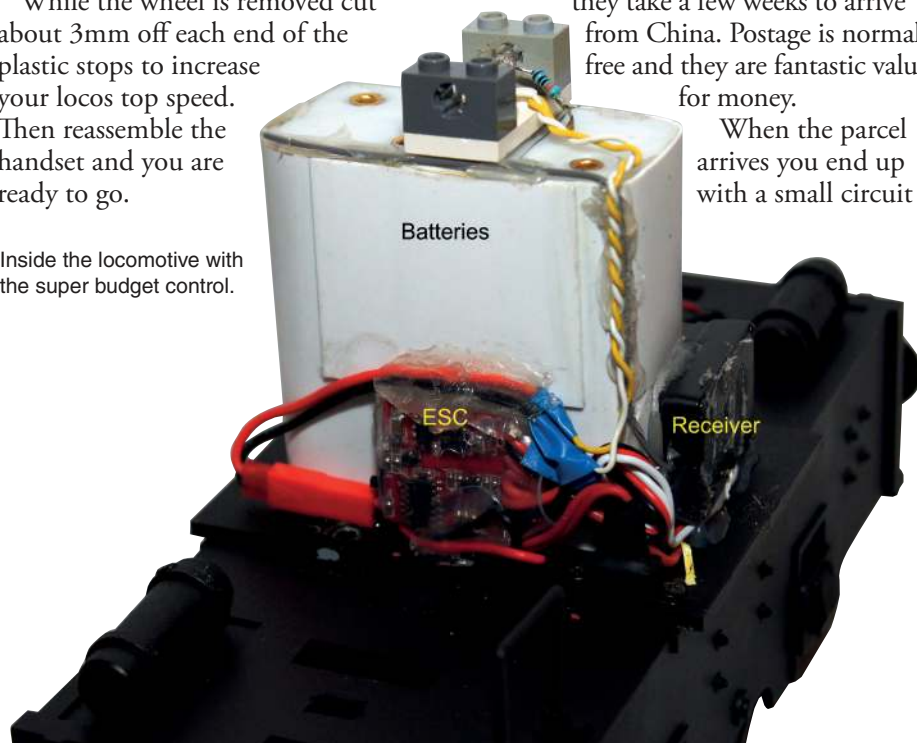
All you need now are a pair of JST plug and socket cables (£3.90 for 10 sets on eBay) and a fuse 5-10amp plus a battery pack for 9volts. I use an eight cell holder and cut an old bolt to the same length as an AA battery and placed it with 7 AA rechargeable batteries from Lidl, these only cost £2.99 for four when in stock. I have also used 9v PP3 batteries. Two of these gave 30 minutes running over my winding and sloping garden railway powering an LGB Schoema diesel.

It is important when converting your loco to battery power to isolate/cut all power pickups from the track otherwise when you power up from your batteries the voltage will move your loco and also any other one on the track nearby.

You can use any type of fuse (even standard mains plug style) I happened to have a few circular quick blow ones from an earlier project which are fairly small.

If your battery pack will remain in the loco then you will need a toggle switch and a charging socket to top things up. I use a sub miniature mini toggle switch DPDT with on-off-on capability at around 80p each. The wiring diagram shows a charging circuit for a DPDT switch. If you use an SPDT- Single Pole - just join the three black wires near the switch.

The charging socket I use is for a 2.1 x 5.5mm jack plug, these can be obtained in pairs (plug and socket) for as little as £2.30 for 10.



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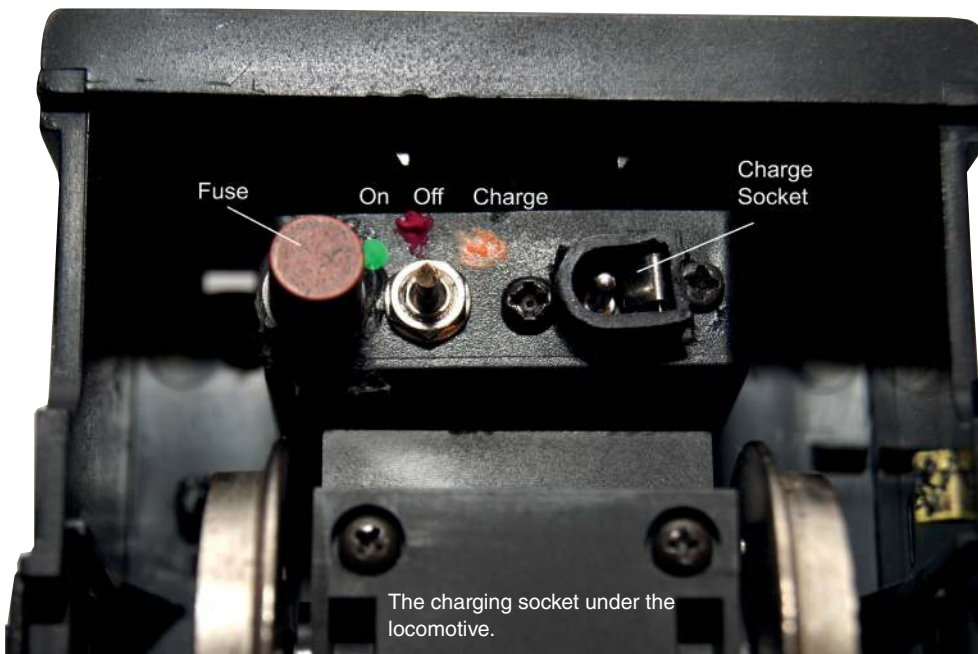
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BINDING YOUR TRANSMITTER AND RECEIVER.

Once everything is connected up you need to "Bind" the Rx to your Tx. Different radio systems will vary slightly in the method, but this is how I do it for mine.

- 1) Turn everything off.
- 2) Put the binding plug into the channel marked "bind".
- 3) Turn on the receiver – the LED should flash quickly as it tries to find a pair.
- 4) Hold the binding button on your transmitter handset as you turn it on,

the Tx should start flashing and the receiver should stop.

That's it, turn both off and remove the binding plug, switch both back on and you should be up and running.

Once you have paid for your transmitter and charger the cost of powering other locos is quite reasonable. Super budget in a wagon/carriage or in a small loco around £10.00 plus batteries.

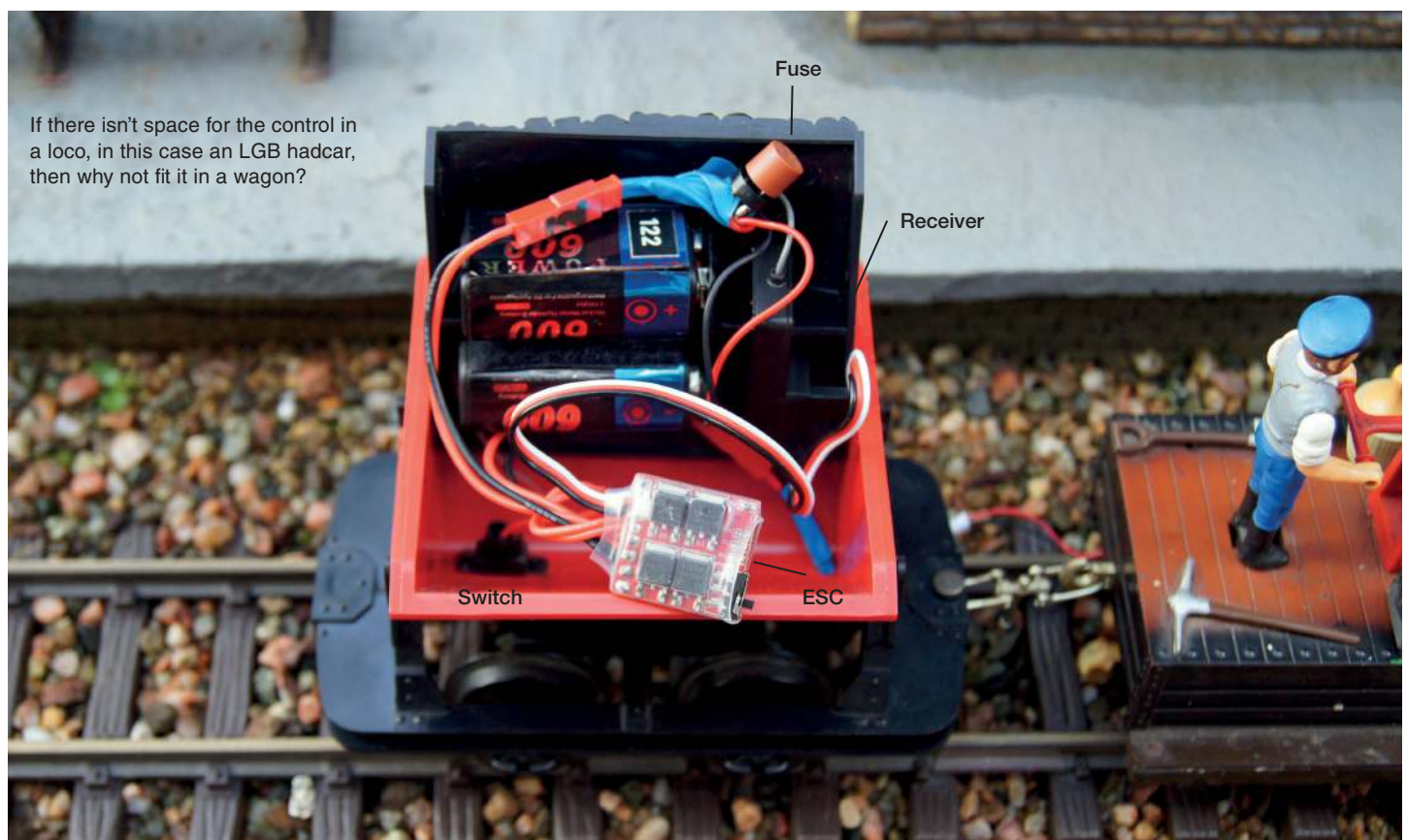
Budget will come in at about £30.00 plus batteries with onboard charging.

The extras you can add are an RC switch for lights on Ch3 (£3.00) or add a micro servo (£5.00) with some magnets

on the arm and two micro reed switches on Ch1 to give two more functions, ideal for controlling a sound card.

Alternatively you can buy a channel splitter (£18.00) from Fosworks which you can setup as latching or momentary – I use one with an Mtronics large diesel soundcard (£55.00) to give engine startup (push on trigger) and two tone horn (pull on trigger) add a super bass speaker (£7.00) and you will have some serious sound!

It is down to you how much you want to spend but at £10.00 plus batteries for basic control, what a bargain! ■



Scratchbuilding an Upper-Class open balcony



Scratchbuilding is less of an economy and more of an adventure suggests Dave Skertchly

Scratchbuilding is usually associated with hours of dirty and dusty marking, cutting, sticking, painting and bolting of parts which then yield a slightly inferior quality model to one which could have been bought or made from a kit.

Sadly, this is completely true but to me there is something exciting about hunting out a drawing of my latest obsession, adjusting it to size and then cutting out that first piece of metal or wood. Those first few hours are a heady concoction of optimism and foolishness but soon to degenerate into weeks and even months of selfless toil.

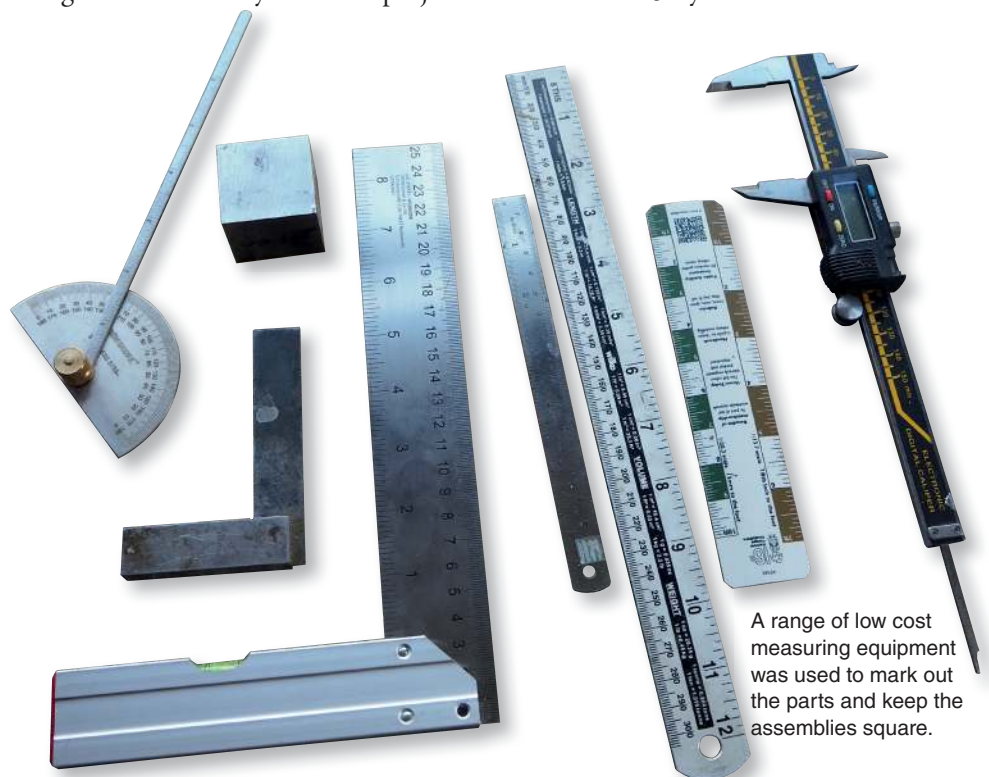
Eventually the project gets completed, warts and all, and believe me I know every wart, after all I made and fixed all of them. By then I will also know every detail of the model and the history of the original to my great interest and satisfaction and own a completely original model of my favourite project.

My latest project is a pair of Glyn Valley Tramway balcony open coaches and it seems that even before starting I had fallen at the first hurdle in the authenticity stakes. There was in fact only ever one of these coaches and alas, I made a pair.

For some 30 years there had been



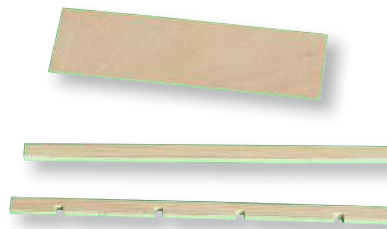
A murky shot captured from an 8mm film frame of the long-ago scrapped toast rack coach which inspired this project.



A range of low cost measuring equipment was used to mark out the parts and keep the assemblies square.



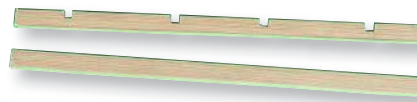
The single most important scratchbuilding skill to be mastered is to keep finger tips out of the way of the Stanley knife blade.



The basic parts were cut out and sanded to shape using a bench sander.



The structure coming together as details are added using free coffee stirrers. 60 The sides clip on and are each retained with nuts and bolts.



no longer exists, and especially where the author has had to scale up from

photographs. It is necessary for the builder to make up the design of the functional parts which are hidden in the depths of the non-

existent detail. This is the creative bit and I love it.

The working drawings were scaled up on a photocopier. To mark out the parts a range of low cost measuring equipment was used. It is important to keep on trying to make every cut and joint square even though things may ultimately get a bit wonky as tiny errors build up. I cut the parts from "Lite Ply" bought from the model aeroplane shop.

The basic parts were cut out and sanded to shape using a bench sander. The dummy chassis has notched cross braces and longitudinals which turned out to be a waste of time.

The sides pods were made to clip on and are retained with a pair of M3 nuts and bolts. The seat slats were added using coffee stirrers slit lengthways and for this

Midland Railway Carriage and Wagon Company at Shrewsbury in 1891. It was the last of the GVT "oddities" the rest being to standard designs.

I thought that making a pair of these carriages might make amends for my hasty decision three decades ago.

My main reference was to be the delightful drawing by Elenora Steel in *The Glyn Valley Tramway* by W.J. Milner.

Here is the first challenge, these drawing are not engineering drawings which would comprise many sheets of fully dimensioned blueprints. Alas the few dimensions quoted on our drawings are often wrong or contradictory especially where the original



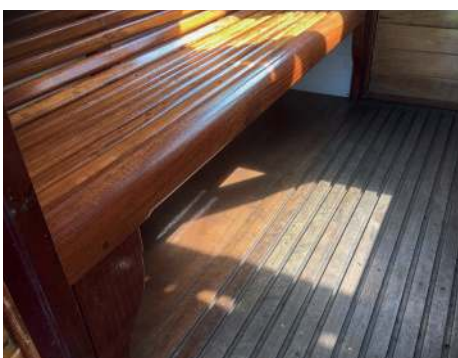
The seat slats were added using coffee stirrers slit lengthways.

bitterness and rancour on the Vale of Weedol Tramway. Grudges run deep in this part of mid Wales, close to Aldershot as it happens.

It all started when I scrapped the little open bogie toast-rack coach to retrieve the eight Binnie wheels for new projects. It seems that this balsa wood lash-up was used for Llangoblin Locomotive Club outings hauled by a little 16hp Ruston Diesel, now 40 years old, which was made from a Saltford Models kit.

A visit to the Glyn Valley Tramway Museum at Glyn Ceiriog reminded me that I had not modelled the little open balcony third-class coach built by the

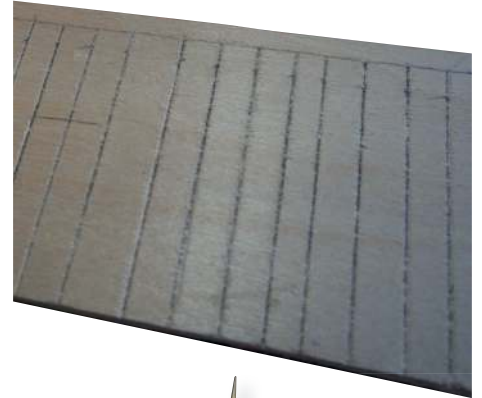
Dave took plenty of detail shots on the Lynton and Barnstable railway. They aren't exciting, but very useful.



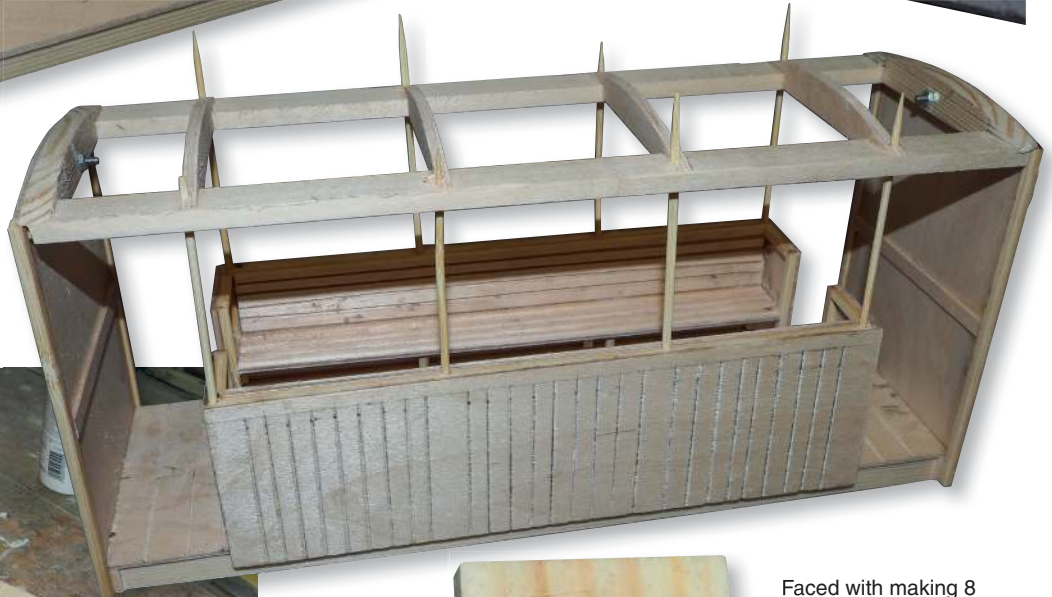
Checking that the figures still fit since the thicknesses build up with this kind of laminated detail.



The matchboarding was inscribed with a pointed bodger.



The side pods and roof were drilled with a template to ensure the uprights would line up and then a trial assembly was carried out with cocktail sticks for uprights



The wheels were mounted on a bit of scrap wood which was adjusted with a spirit level to get the correct dimensions for the axle box bearings and buffer height.



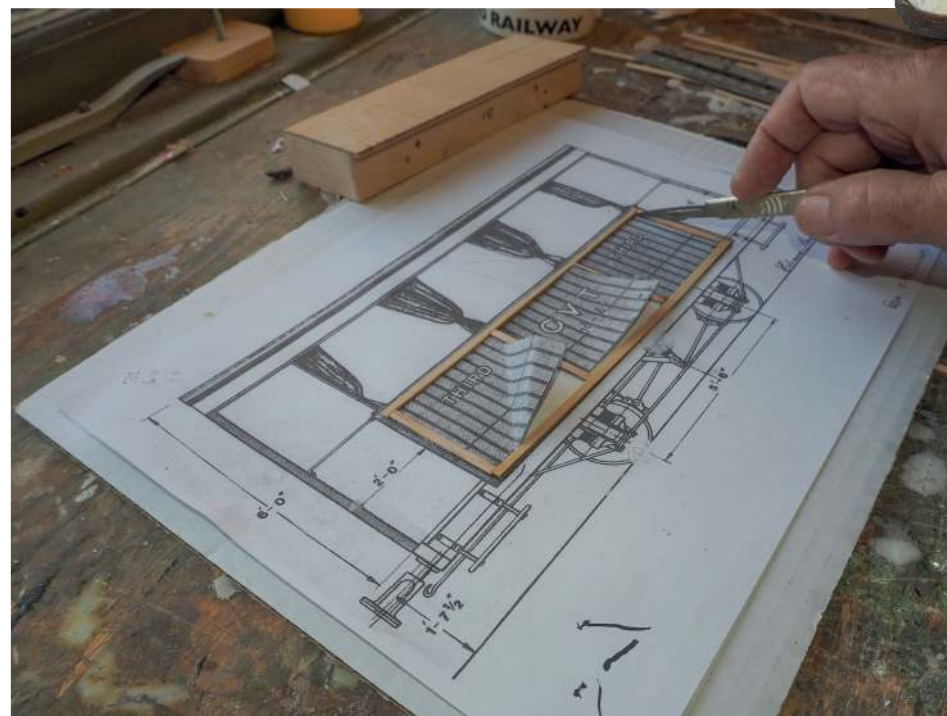
Faced with making 8 axle boxes Dave made a wooden pattern then took a silicone rubber mould and cast them in polyurethane.

I referred to detailed shots I took on holiday on the Lynton and Barnstable railway.

The matchboarding

was inscribed with a pointed bodger, but I made a horrible mistake, I cut the sides so that the inscribed matchboarding was cross grain and this compromised the finish. The side pods and roof were drilled with a template to ensure the uprights would line up. A trial assembly was carried out with cocktail sticks for uprights although the final uprights were cut from one of those metal coat hangers from the dry cleaners.

The correct disk wheels were not available so I used Binnie curly spoked wheels of about the the right diameter.



The side details were made on a separate fret cut from coffee stirrers and glued to a copy of the plan. The fret was cut out using the plan as support before finishing.



All the parts complete ready for test assembly.

The wheels were mounted on a bit of scrap wood which was adjusted with a spirit level to get the correct axle box centre and buffer height. Faced with making eight axle boxes I made a wooden pattern, took a silicone rubber mould and cast the the axle boxes from polyurethane. It was necessary to drill the mounting and bearing holes and unfortunately I did not foolproof the tools, so half were drilled upside down and had to be re cast!

The side details were made on a separate fret to avoid having to "cut in" the contrasting paintwork. The fret components were cut from coffee stirrers and glued to a copy of the plan using super glue. The completed fret was cut out carefully using the paper plan as support and then finished separately to the sides.

The Directors of the Vale of Weedol Tramway, it seems, are rather class conscious and insisted that they wanted to attract a better class of customer. One carriage was designated "Upper Class" and the other "Working Class". The Upper Class coach was loaded with top hatted gentry while in working class the

passengers are wearing flat caps. The carriages are ten seaters but even with a 50% load factor I had to make all 10 figures including the ticket collector.

The parts and figures were sealed with model aircraft sanding sealer. The seats and floors were varnished and the rest masked and primed with rattle can primer. The matchboarding was re-scribed to maintain the detail.

This is the first time that I had used specialist Tamiya model enamels with my inexpensive airbrush and what a delight it was. The coating is so much denser and thinner than hobby enamels applied with a brush. I would certainly have spent more time on the

filling and priming had I been aware of this. The frets and home made decals were fitted to the side pods.

The wires connecting the axle boxes are a feature of Glyn Valley Tramway coaches. Were they to take braking loads or to stop things falling under the wheels? Either way they were reproduced with plastic coated garden wire.

As I sit at my trendy table outside the Sheep Shearers Prosciutto bar I sip at my glass of "bubbles" and long instead for my fine pint of Auld Phagbutt. It seems that the search for "a better class of customer" has even reached the Sheep Shearers Arms, but with any luck things will soon return to normal. I sigh and take comfort from knowing that those 30 year old grudges have at last been settled by a pair of almost authentic and not too wobbly balcony coaches. ■

Some of the passengers are reading Garden Rail, well what else would you you read on a Garden Railway?



The frets and home made decals were fitted to the side pods.



The complex structure underneath the carriage is never seen and seems pointless, but Dave knows it's there.

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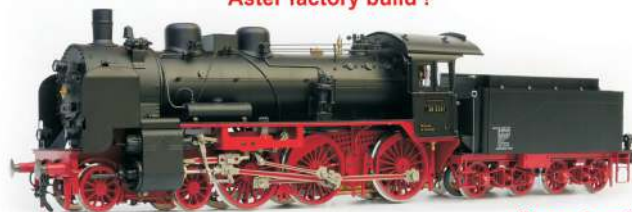


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THE G SCALE SOCIETY

It is now common knowledge that The G Scale Society is not organising its own garden railway show in 2020.

However, we are still required to hold an AGM and to this end we have agreed with The Association of Larger Scale Railway Modellers to hold this at the ALSRM Reading Show on Saturday 9 May 2020 at 1300hrs.

In addition and as part of our contribution to the day, there will be a significant G Scale presence at the show. There will be at least four and possibly five G Scale exhibits showing in the main hall.

Layouts already confirmed are: Hampden End; Dow Bridge and the Chiltern Area Group.

In addition, the G Scale Society will be occupying the 'Thames Suite' demonstrating our latest initiative in Gn15 scale and holding our Modelling Competition.

Eric E Upton

Chairman, The G Scale Society

GLUE

I think Dave Skertchly (Winter Working, GR 305) has been misled by

RNAD VAN

I was very interested to read the product news in Garden Rail Issue 306 covering the RNAD van from Resurgam models.



In 1994 I purchased TO 209 following the closure of the Trecwn Depot. The person I bought it from had successfully bid for 54 tons of redundant rolling stock including a Hunslet Diesel. TO 209 was in excellent condition given its age and arrived at our house on an old MoD lorry. We created a small 'railway' garden in the corner of our garden and it was our garden shed until we moved in 2005.

The powder van had undergone a refurbishment programme not long before Trecwn was closed. The chassis was built at Cravens in Sheffield in 1940 and had a teak superstructure. I think storage in the caves had provided a lot of protection and we noticed over the 11 years the corner bars started to corrode quite badly.

I'm now in touch with Resurgam to add a miniature version of my van to the fleet.

Robin Bennett

the label on the bottle of EvoStik Resin W. The two compounds he refers to are in fact preservatives, present in quite

small quantities. They're listed because they can sometimes cause allergic reactions in those with sensitive skin.

These compounds are found in a wide variety of domestic products such as cleaning materials like washing-up liquid and cosmetics, and my wife and I were told by a hospital dermatologist recently that they are amongst the commonest causes of skin reactions identified in skin 'patch' tests.

The adhesive manufacturer's Technical Data Sheet on their website says that Exterior Resin W is a 'modified polyvinyl acetate emulsion (PVAc)', so this adhesive is one of the PVA types. It's good stuff, too!

I liked Dave's snowplough design – the pivot and the guiding wheels are very clever.

Mike Edwards



CHRISTMAS LIGHTS AT THE SWANAGE & SOUTHERN LIGHT RAILWAY

The family would be coming to us for Christmas and some hadn't seen the G scale garden railway yet. However December isn't really fun garden railway weather so I wanted to do something that could 'wow' the visitors without the need for full operations. Inspiration came from a Bachmann open toast-rack tram which I bought in the summer, which being illuminated makes a fine after-dark car, and is a complete train in one vehicle.

What it needed was some Christmas

EXPANDING FILCRIS

After a brief hiatus, I am now back into garden railing and have nearly finished my own little line which has been constructed mainly using Filcris materials. Consequently, the excellent and well written article by Rob Golding regarding Building Bayfields was really interesting - but also a source of exasperation.

My method of construction is a tad different in that the outer Filcris rails are used with netting to form a trough into which I have put gravel and then laid the track onto it. As long as I can stop the dog jumping onto the trackbed, it seems to work well with little direct fixing of the rails other than at corners.

Nevertheless, I am still getting some distortion of track which I am beginning to believe is caused by the contraction of the Filcris because of its thermal properties. I think the construction is contracting in the cooler weather rather than the metal rails expanding.

Consequently, when Rob talks about sunlight affecting the stability of the material and advises taking care - I'd be very interested to know what steps he has taken.

Richard Jackson

Editor: I've passed this question on to Rob for comment. If any other readers have experience of Filcris, I'm sure we'd like to hear more.



lights and I discovered a vast range of different lights on the internet. I settled on a pack of 3x30 multi-coloured lights from Innotree, for a very reasonable £9.

These duly arrived and due to the mouldable nature of the silver coloured wires I was able to wind one set of lights around the stanchions etc. of the tram. The power is two button batteries in a small plastic case which sat nicely on the conductor's platform, the switch remaining easily accessible.

The effect was great both standing still and in operation. I then applied more of these light sets to the garden railway. One set was strung along the station buildings and an adjacent tree, one was wound round 'Christmas tree'

style on a tree opposite the station, and a third set was worked up and down the supports of a trestle bridge.

The big question was how to keep the batteries dry (the actual lights and wires are waterproof and can be used in fish tanks!). I used the plastic pouch that each set came in to house the battery case, re-sealed it and added some tape to it. I then located the pouch under a small rock or inside a waiting shelter to keep the worst of the weather off. Good job as it then chucked it down over most of Christmas but our visitors were able to admire the Christmas lights at the SSLR.

Stephen Wise



Barbara Martin

"Your temperature seems to have gone up since your last visitor Mr Smith".

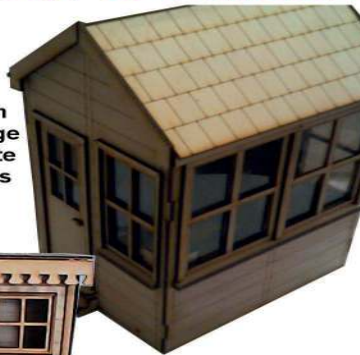
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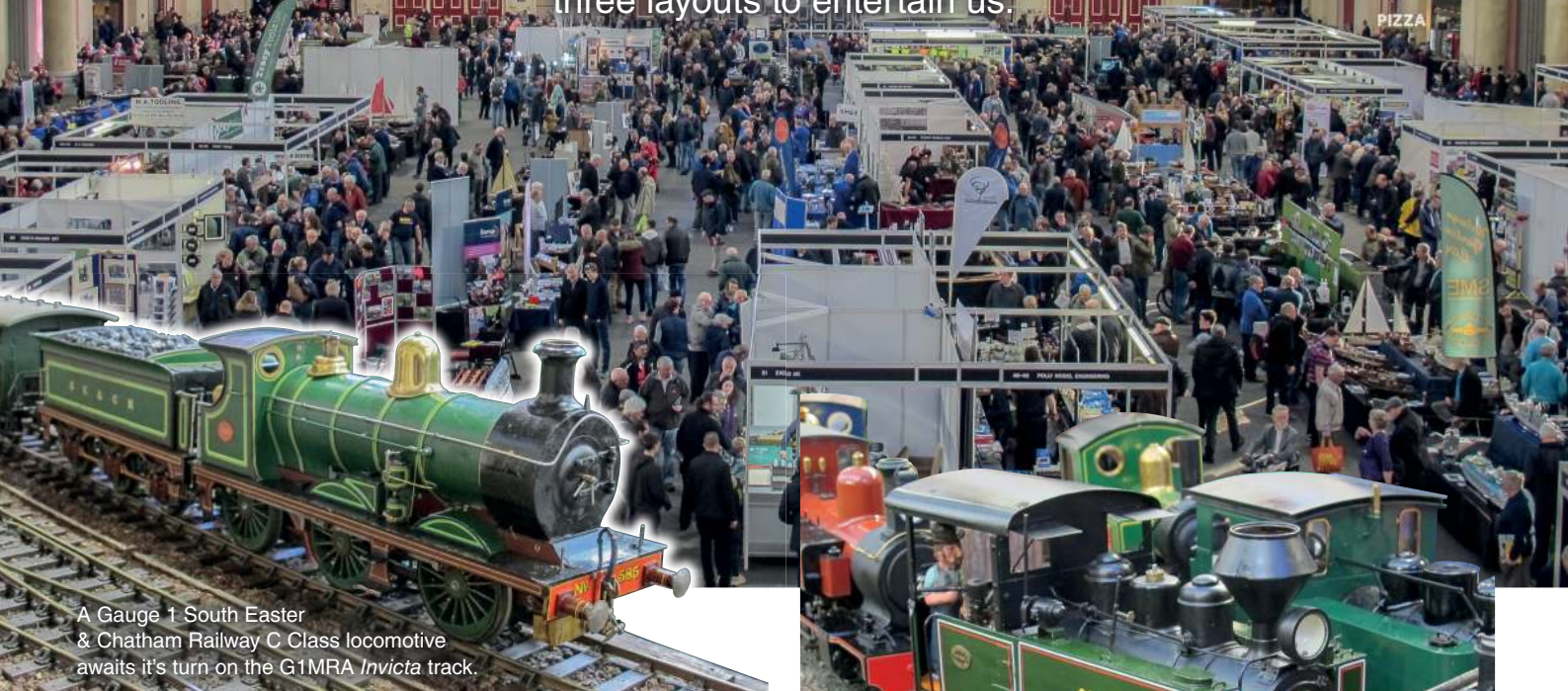
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Seen at the London Model Engineering Exhibition

Model locomotives in garden railway scales were in short supply on engineering society stands at Ally Pally this year, but there was still plenty of action on the three layouts to entertain us.



A Gauge 1 South Easter & Chatham Railway C Class locomotive awaits its turn on the G1MRA *Invicta* track.



A scratchbuilt Swedish SRJ railcar on the Buckinghamshire groups layout.



Dale O'Denby awaiting a turn on Rigmont.

Ridgmont in full flight with crowds watching the traditional 16mm modellers pastimes of running small steam locomotives and drinking tea.



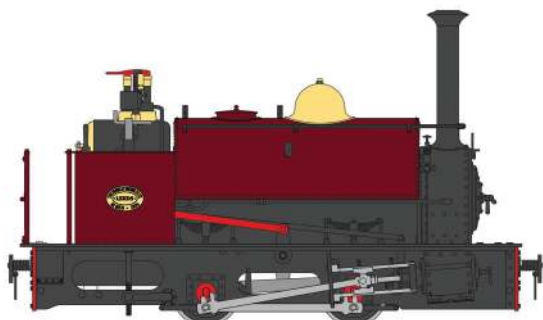
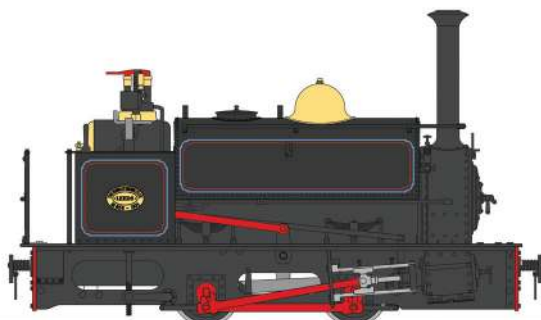
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