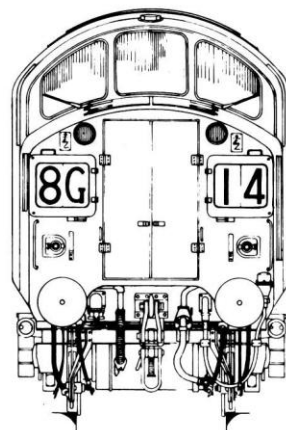


ALSAGER RAILWAY ASSOCIATION



NEWSLETTER

April 2021

Welcome to the fourth issue of our approximately-monthly club newsletter. As always, all club members are encouraged to submit content (short or long, with or without pictures) to the current editor – the more, the better! Content is preferred in Word, or in an email, rather than pdf. Pictures can be sent embedded in Word or separately as jpegs (high resolution if available).

Copies of the newsletter are posted on the website as well as sent to members by email. Authors of each article will be credited on the website unless they tell me when submitting their content, in which case their submission will be posted anonymously, although they will continue to be credited in the email version sent to members.

Jules Attard, Editor

Jules.attard81@gmail.com

Next Committee Meeting

Will be on April 21st at 19:30, using Zoom. If you would like to join as an observer, please contact Paul Whittaker and he'll send you a link.

Members' Updates

Chris Yardy reports he's fitted a PECO inspection pit to his Stringer Lane layout. Having used Gorilla Weld to fix it, it's now only coming out with a bolster chisel and club hammer.



Howard Blakeman complained when his post and wire kit didn't arrive from Commodore Studios so they sent a replacement – then the first arrived too (nice one Howard!). So he's donated the spare to the club for the new Smalldale Quarry layout.

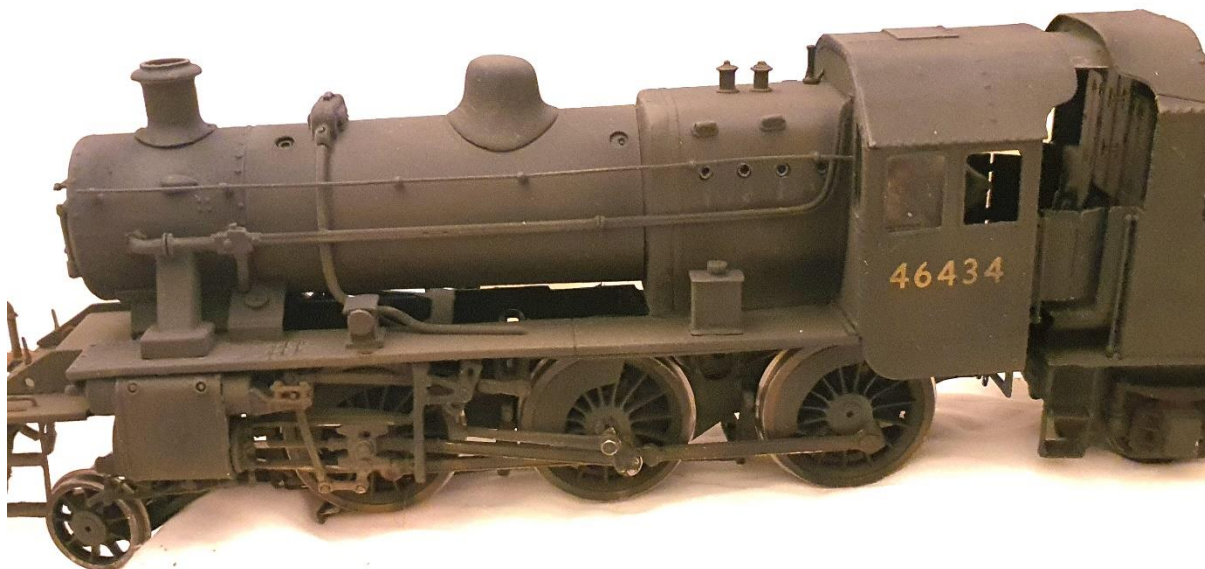
Jules Attard has built a main and island station building using laser ply kits from In The Greenwood, also for the new club layout. (Signs and weathering will be added when ready to install.)





Andy Small shared photos of some O gauge stock he's been weathering: a 4MT, 14xx, J94, and some HAAs.







Modelling

Building an O gauge kit – Mike Sant

“What did you do in lock down ?”

I bought a David Andrews O gauge kit from Guildex at Telford quite a few years ago and it has been on my shelf waiting to be made. So when we started lock down last year I thought it would be something that would keep me busy amongst other things like decorating and gardening.

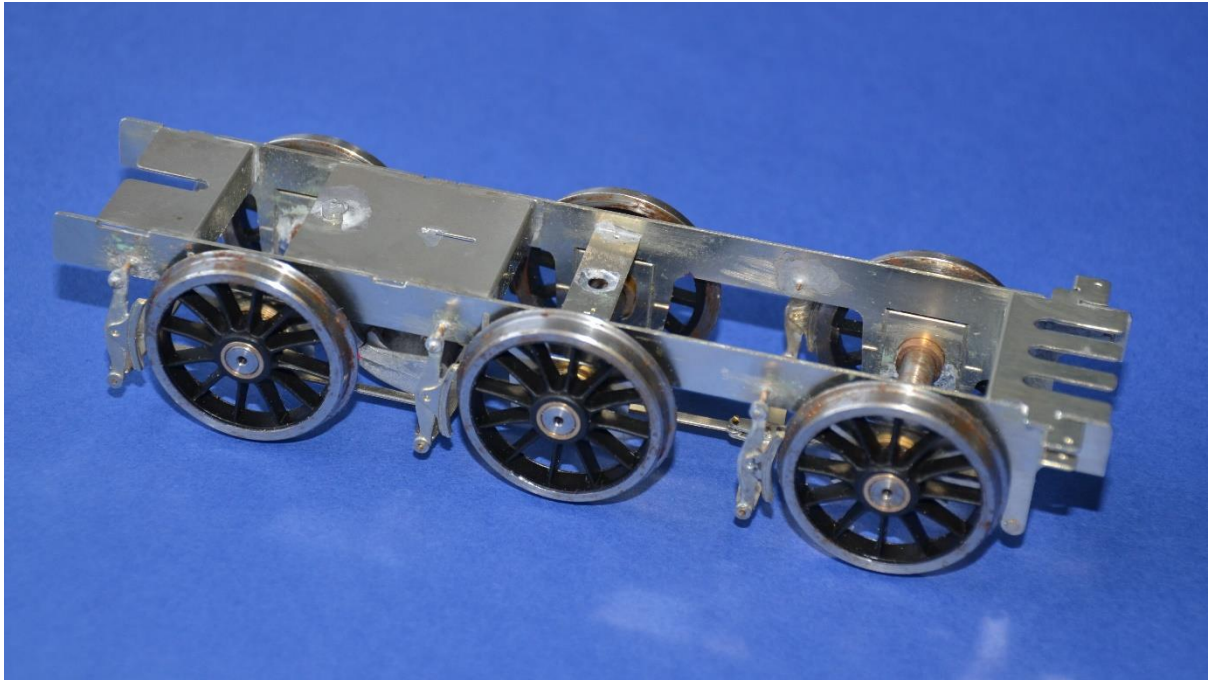
The kit is of a GCR Class 9P which I plan to make into one named VALOUR in memory of the Great Central Railways workers killed in WW1. The painting below of it by Malcolm Root.



I opened the box and made a start. I always read through the instructions a couple of times first to get an idea of the sequence of build. Then check out all the brass etches and castings to make sure everything is complete then order the wheels and motor gearbox.

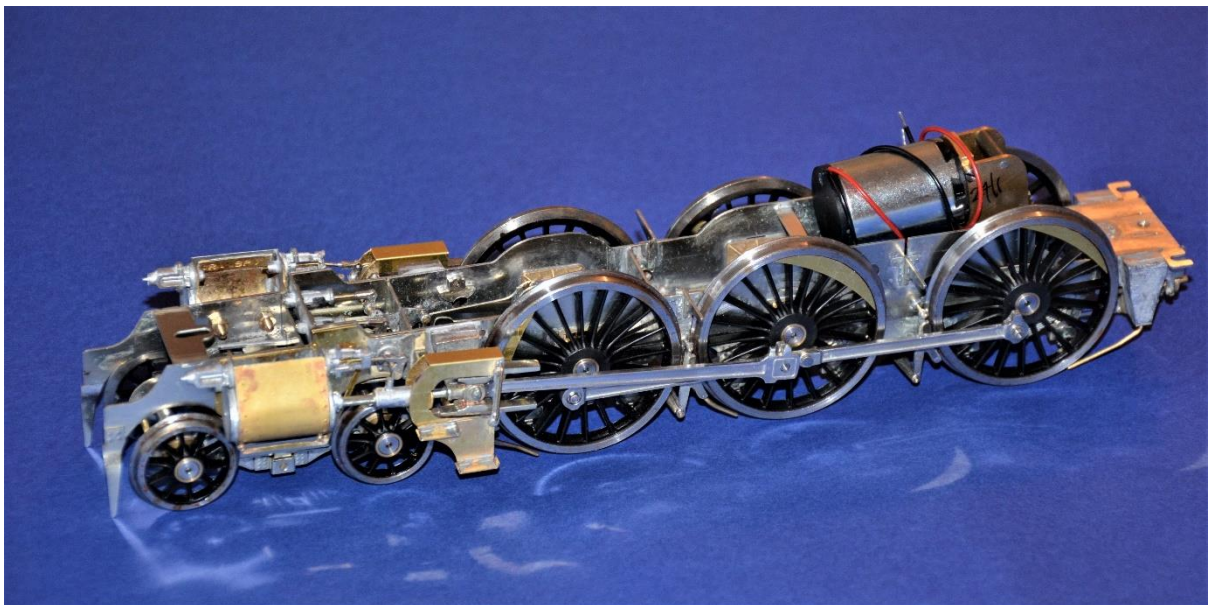
I cut out the items I want from the etched sheets as I require them, always using a small piercing saw then clean up the edges with small files. Parts are then soldered together using Carrs green label flux and either 145 or 188 degree solder keeping everything clean as you go using a fibre glass brush, when finished the unit is then rinsed with washing up liquid and water every time. I always make the tender first then the loco after.

Tender chassis



The most important thing I do is to spend a lot of time making the loco chassis and to get it running smoothly, an elderly Gentleman was demonstrating chassis building at an exhibition about 30 years ago and his chassis glided along as smooth as silk with just the push of a finger, I spent over an hour talking to him about what he did and it has stayed with me ever since, even back then 30 years ago he sprung all the main driving wheels on the loco and I do the same it helps the loco to run on uneven track. I don't make the loco body until I get my loco chassis to run smoothly first including the valve gear.

Loco chassis



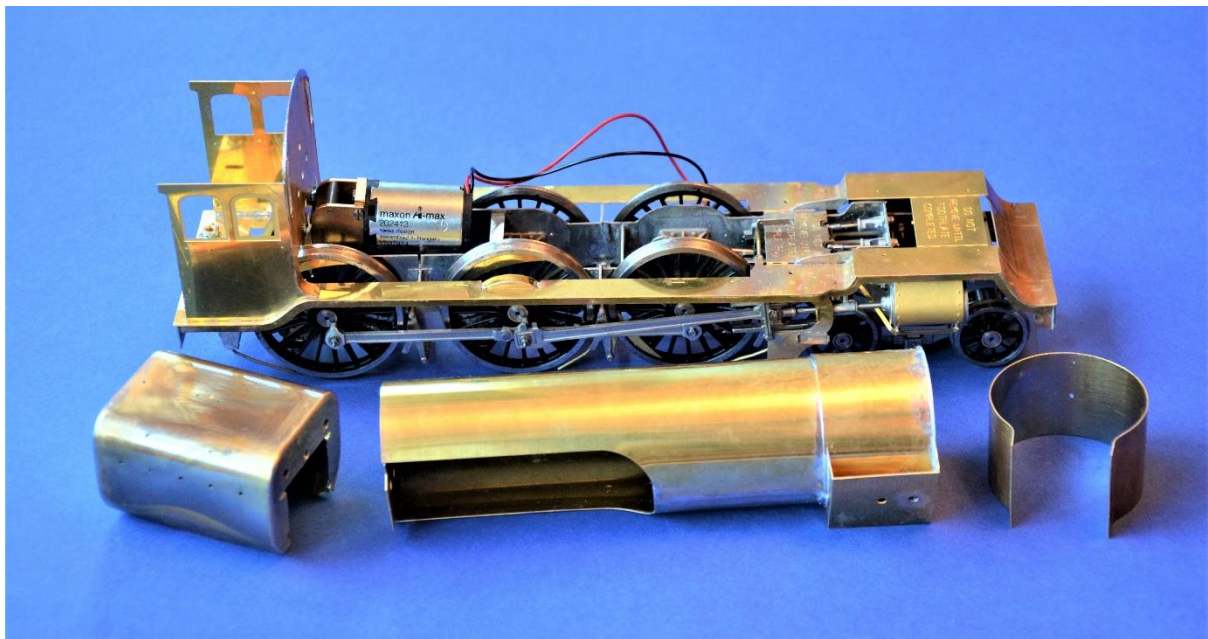
When the loco and tender are complete it is all cleaned with Bar Keepers Friend Stain Remover a bit like Vim, sprinkle some of the fine powder on an old tooth brush and give it all a good clean but not

the wheels I have dismantled them and taken them off the chassis first, after its clean it is then left to dry usually in the airing cupboard for a few days with the wife's permission!

Fire box



Boiler, fire box and running plate



Then before I spray the first coat of primer again, I will clean the body work and chassis with a brush dipped in Cellulose thinners and brush it all over this will get rid of any remaining grease marks and finger prints, it is then left to dry. I use an Etch Grey Primer in a spray can from Halfords and found it to be very good.

Complete waiting for painting



I have always used Phoenix Precision enamel paint to paint/spray with and always the gloss version and I find this dries quite hard and gives a good smooth finish so when I put the lining on with a bow pen it gives a nice sharp edge to the lining; matt/satin finish paint does not and the paint creeps outwards and leaves a ragged edge to the line. Those transfers including water slide transfers stick better to a gloss surface. Finally, a spray coat of satin or matt varnish to protect it all including the transfers. (I will do another article on how I do the lining next.)

If you would like to watch a short video of my garden railway on YouTube click on this link:

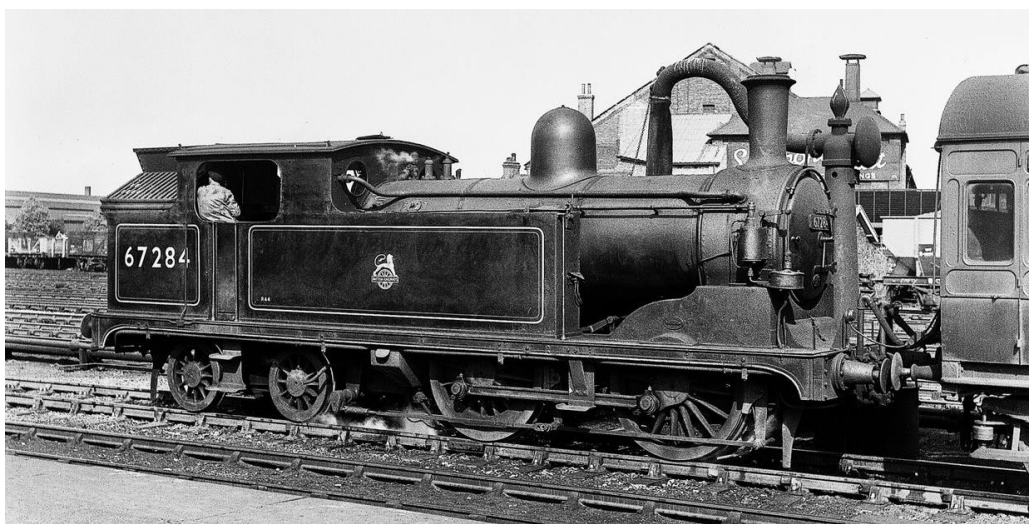
<https://www.youtube.com/watch?v=KT-B5WxN7cE>

See you all at club hopefully in the next few months, and best regards to all

Building some N gauge kits – Jules Attard

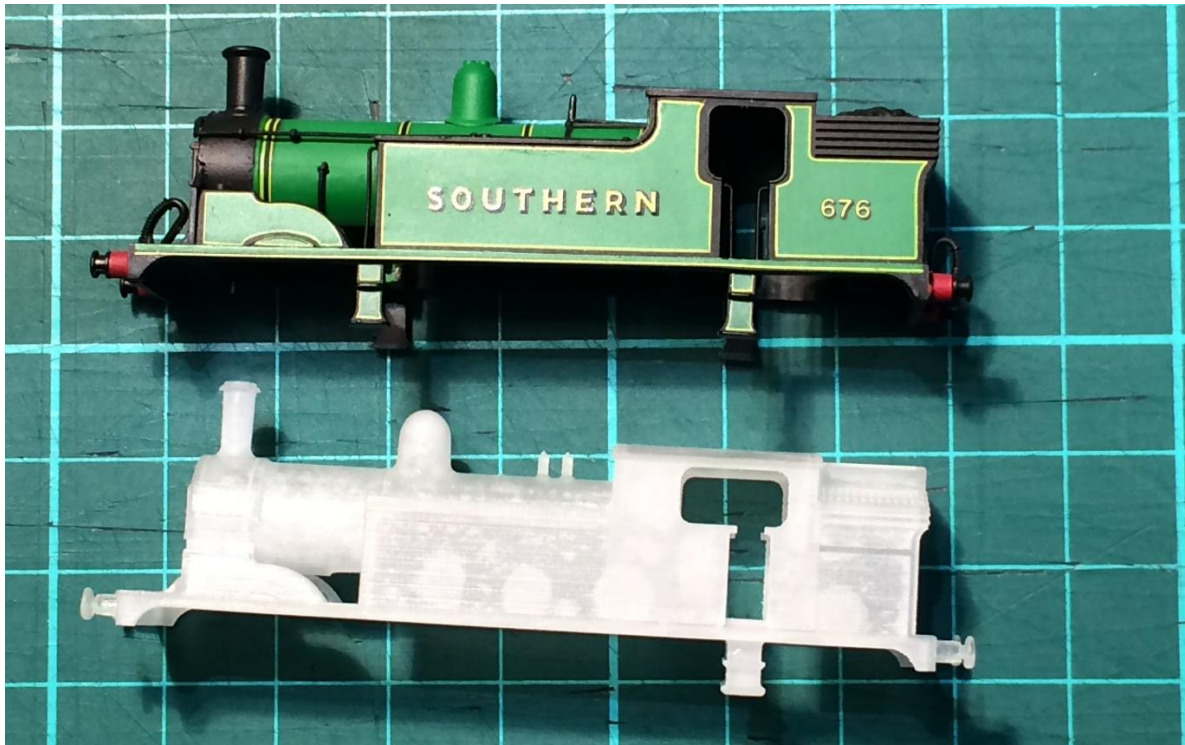
A few months ago, my interest in ex-LMS/LNER push-pull locos was sparked by Paul Whittaker's Middlewich Dodger conversion (see March newsletter), so I bought a Southern M7 (Dapol) 0-4-4T from eBay with a vague plan to butcher the body into something resembling a Stanier 2P.

Fortunately, I came across a 3D print of an ex-LNER G5 (NER Class O) on Shapeways which could use the chassis and I reckoned would be easier to convert. I chose the version with a coal hopper.



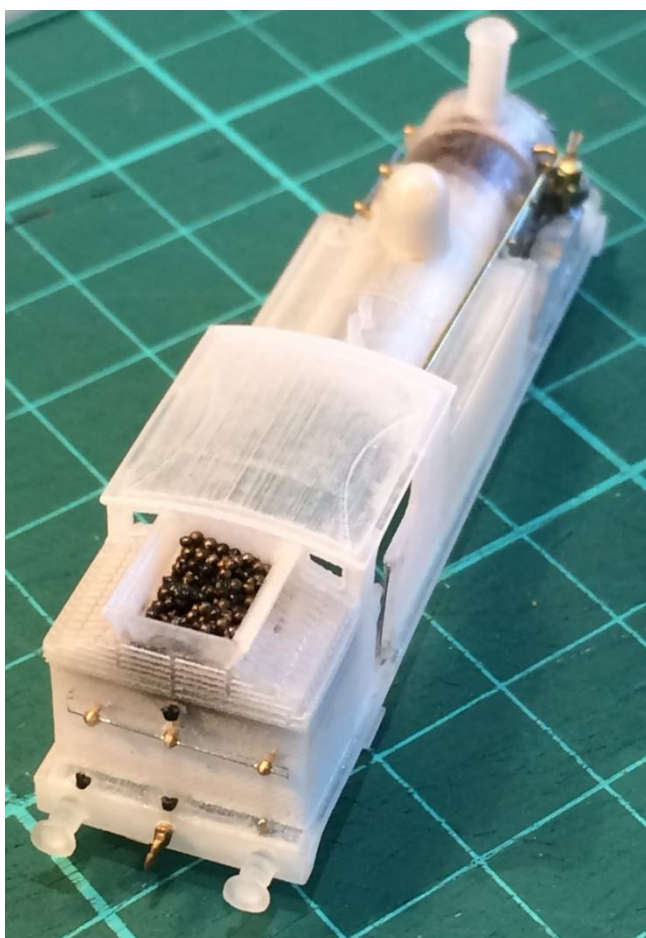
*67284 of
Starbeck
(Harrogate)
shed, seen
in
Darlington
(Gazette
Live)*

Donor and 3D print side-by-side

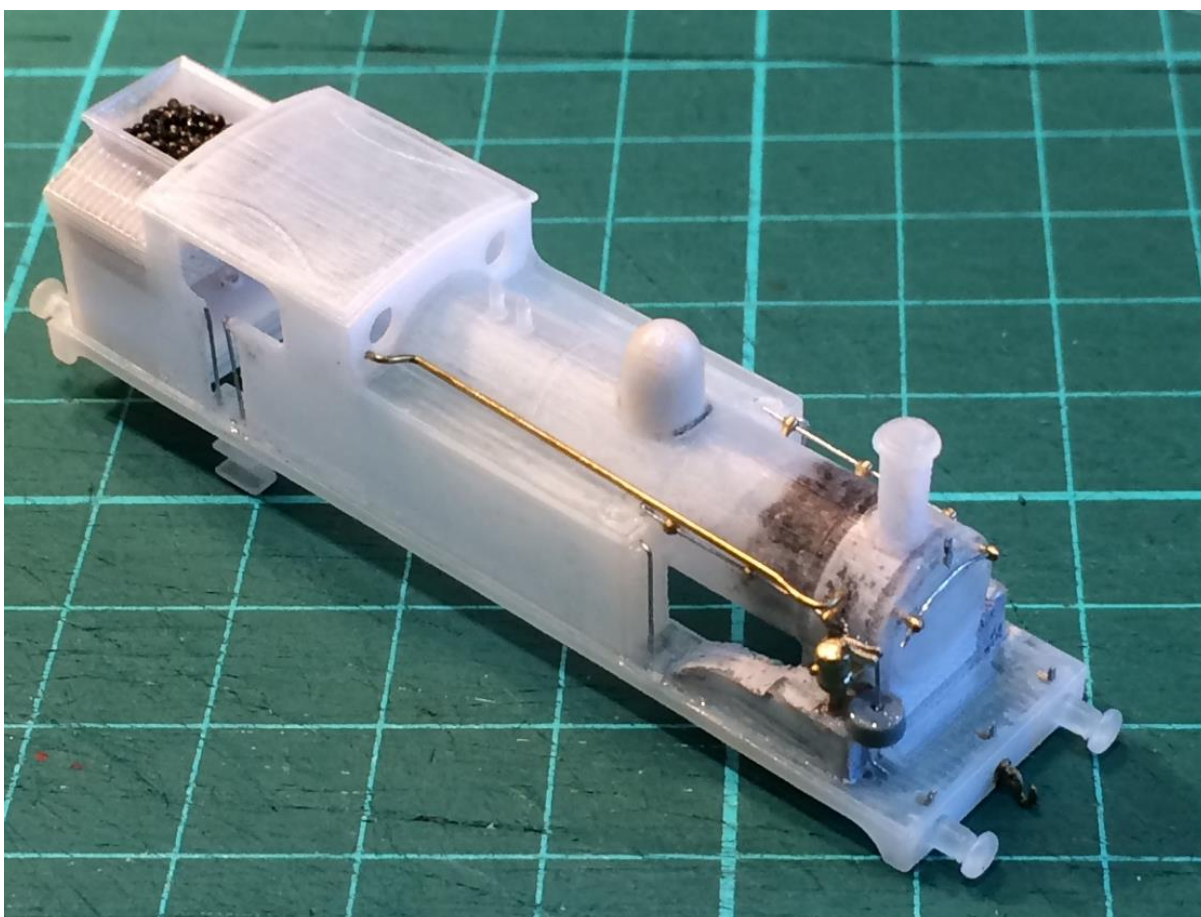


The chassis only needed a little trimming so it would slide over the cab steps. However, the front splashers in the printed body were too narrow for the wheels, so I had to cut them off, re-attach and repair with plasticard and filler.





Before priming and painting, I fitted details, mostly from N Brass Locos but a few odd pieces from the spares box. At this stage, I added as much weight as I could using Liquid Lead, and fitted base plates to screw the chassis into by solvent welding a block formed from several layers of Plasticard.



The model was then cleaned, primed (Halfords grey plastic primer) and sprayed black (another Halfords rattle can). I bravely decided to attempt lining, but limited my use of a bow pen to curves on the running board, using Fox decals for the rest. I renumbered the loco for shed 53B (Hull Botanic Gardens) with Railtec decals, as G5s were often seen along the East Coast through Scarborough up to Saltburn, and sent it to Wickness Models for DCC chipping.



At this stage, I wanted a driving trailer coach to accompany the loco, and bought a brass etch kit from Langley. Unfortunately, the kit instructions seem to have been written by someone who hadn't actually made the kit, as several steps were out of sequence – not all of which (such as drilling holes for the many, many handrails) I caught in time! Lacking the confidence to solder, I used superglue which worked fine except for the fold-up bogies which were an abomination. In the end, I binned them and used plastic "BR Mark 1" bogies from BR Lines, which surprisingly gave a good match for the original Fox bogies once I'd fitted running boards to them. For decoration, this coach gave me another chance to practise LNER "teak" painting.



A test run of the loco with this single brass coach showed that, although it ran well pulling forwards with pick-ups on all four axles, it still suffered from the original M7's notorious wheel-slip when pushing a load in reverse. I addressed this by adding even more weight with Tungsten Putty under the cab roof, and it now runs well in both directions.



Activities

Playing Trains – Paul Whittaker


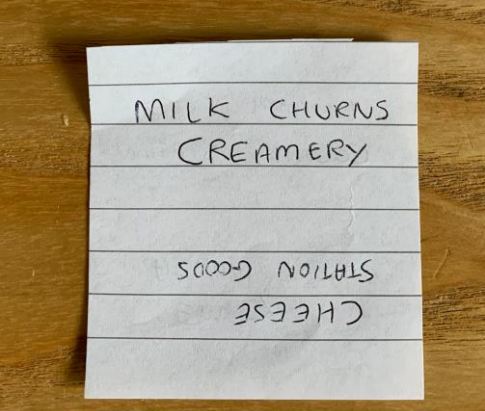
So you have built your layout, now what? Let's face it watching trains go round in circles gets very boring very quickly. So how to make it more interesting?

One way it to make a shunting puzzle. If you layout includes a few sidings you can make an "Inglenook" style shunting puzzle. Here you have two or three sidings, six wagons and a dice. You give each wagon a number from 1 to 6. Place the six wagons on a siding in any order. The object is then to roll the dice three times to select three wagons at random (if you get the same number twice, just roll the dice again). Then by shunting the wagons make up a train consisting of the three wagons picked by the dice in the order they were selected. Once complete the train can then depart with the wagons. Bring the wagons back to the siding and drop them off next to the other wagons. Now roll the dice again for another go. You don't have to use six wagons and make a train of three you can make up a bigger train with more wagons, just roll the dice twice and add the two numbers together to select one of 11 wagons. (You can't roll a one with two dice!).



Another way is more popular with American modellers, but consists of creating car or wagon cards and waybills, to try and recreate a more realistic representation of the movement of goods. Each wagon has a wagon card which is used to identify the wagon on the layout. It details the wagon type, wagon number and can include a picture of the wagon to help identify the wagon to the card. The wagon card also has a pocket in which the waybill can be inserted so that only the top half of the waybill can be read.

A waybill is a card that is split up into four sections. Front top, Front bottom, Back top and Back bottom. On each section you write what the goods in the wagon are and where it is going to. Write the bottom sections upside down so that when the waybill is turned and put back in the pocket on the wagon card it can be read.

Wagon Card	Waybill
	

The waybill is then put into the wagon card pocket and the wagon is taken to where it is going. When the wagon arrives at its destination you turn the waybill round or flip it over to reveal where it is going next. For example if you have a box van it may be used to pick up some milk churns from a country station and take them to a Creamery, so section one of the waybill would say Milk Churns to Creamery. Section two of the waybill could then have Cheese to Station Goods Yard. Section three could be Empty Wagon to Animal Feed Plant. Section four could then contain Animal Feed to Country Station. So the wagon visits three places before returning back to where it started (the Country Station).

With multiple wagons and different waybills you can make a train pick up and drop off wagons at the various industries and sidings along the route. When you have finished playing just leave the wagons where they are and the wagon cards and you can continue from where you left off next time.



Methods

DCC++ Base (Command) Station Part 2 – Arthur Roberts

In my previous article I should have made it clear that the picture was, of course, an Arduino UNO Compatible by GEEKCREIT, and EngineDriver is an APP for an Android Phone – thanks to those who spotted this & contacted Jules.

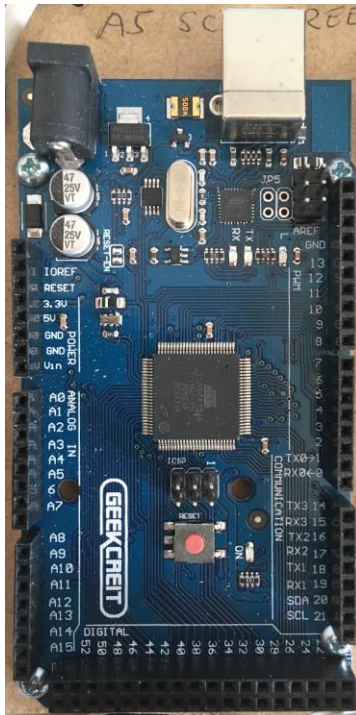
So why the need for further development you may, quite correctly, ask ?

The short answer: there is no need if you are happy with a set up needing a router & a computer. However, I really wanted a completely stand alone unit that had its own router (Access Point (AP)), no computer connected & only using a smart phone as a hand controller (commonly called a CAB). So I started to trawl the Internet & found a brilliant & very comprehensive website, *DCC++EX*. The team members are in USA, UK, India & possibly elsewhere. They have rewritten DCC++ firmware from scratch & included how to connect to a command station using an Arduino MEGA (or compatible), smart phone & an ESP8266 module (this is now the AP) without need for a router or PC.

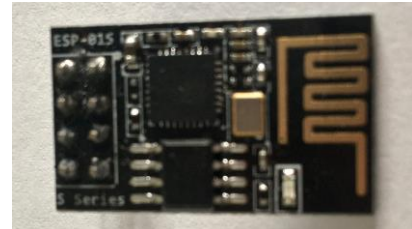
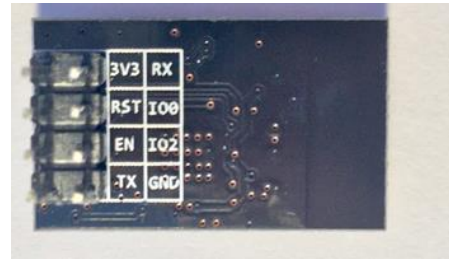
Again, the following is simply an overview – for more information please contact me, or better still go to the *DCC++EX* website – very detailed instructions, pictures, diagrams & sketch download for the MEGA.

Equipment

- Arduino MEGA (or compatible) – needed for the extra memory
- L298P Motor Shield powered from 12-18v, 2Amin PSU
- Laptop or PC with Windows 10 or iMac & USB lead to download firmware to the MEGA
- Mobile Phone (iPhone or Android) to act as a CAB (Hand controller Throttle)
- 9v PSU to power MEGA & 3.3v (500mA is sufficient) PSU to power ESP board.



GEEKCREIT (Arduino compatible) MEGA



ESP 8266(ESP-01S)
(Both sides of board)
8 pins but only 5 used:
3.3v, 0v (Gnd), RX , TX
EN – connect to 3.3v pin

Instructions

Download firmware (CommandStation-EX) from DCC++EX website to MEGA via USB cable.

Disconnect USB cable – Plug in L298P Motor Shield (see previous article), connect PSU's

N.B. DO NOT exceed 3.3v to ESP.

Connect RX pin on ESP to Tx1 pin on Mega & TX pin on ESP to Rx1 pin on MEGA. Download EngineDriver App to Android smart phone.

In settings on the phone, disconnect your home WiFi. The phone will have picked up the ISP for the ESP.

ISP looks like 192.168.4.1 port 2560. Put this & the loco decoder address (CV1) in

EngineDriver – the phone can now control the speed & direction of the loco.

The phone is the CAB (hand controller) & the ESP is the AP (Access Point, like a router).

As indicated above this is an overview – it can take quite a time to achieve as will be realised when following the instructions on the website. What I have found is that if the ESP is too close to the MEGA & motor Shield the WiFi connection between the phone & the ESP can be “flakey”, at best. I also built my own 9v & 3.3v supply using the usual 78xx voltage regulators, so I then only need one plug-in 12v PSU. The next development, which I am currently working on, is using a MEGA with an on-board ESP. I've got this to partially work but connection between phone & on-board ESP often falters. – Watch this space.

Good luck.