



KENT NEW LETTER

Newsletter 17

APRIL 2021

SPRING IS HERE

Dave Fenner Article

CLASS 56 IN G SCALE – PART 1 – Design and frame

After I had converted an Aristocraft BP Lil' Critter I had the taste to make a larger diesel. Please do not get me wrong, I very much prefer steam locos, but I like to use the diesels for shunting. Hopefully this one will be powerful enough to act as a 'Thunderbird' to pull 'dead' steam locos.

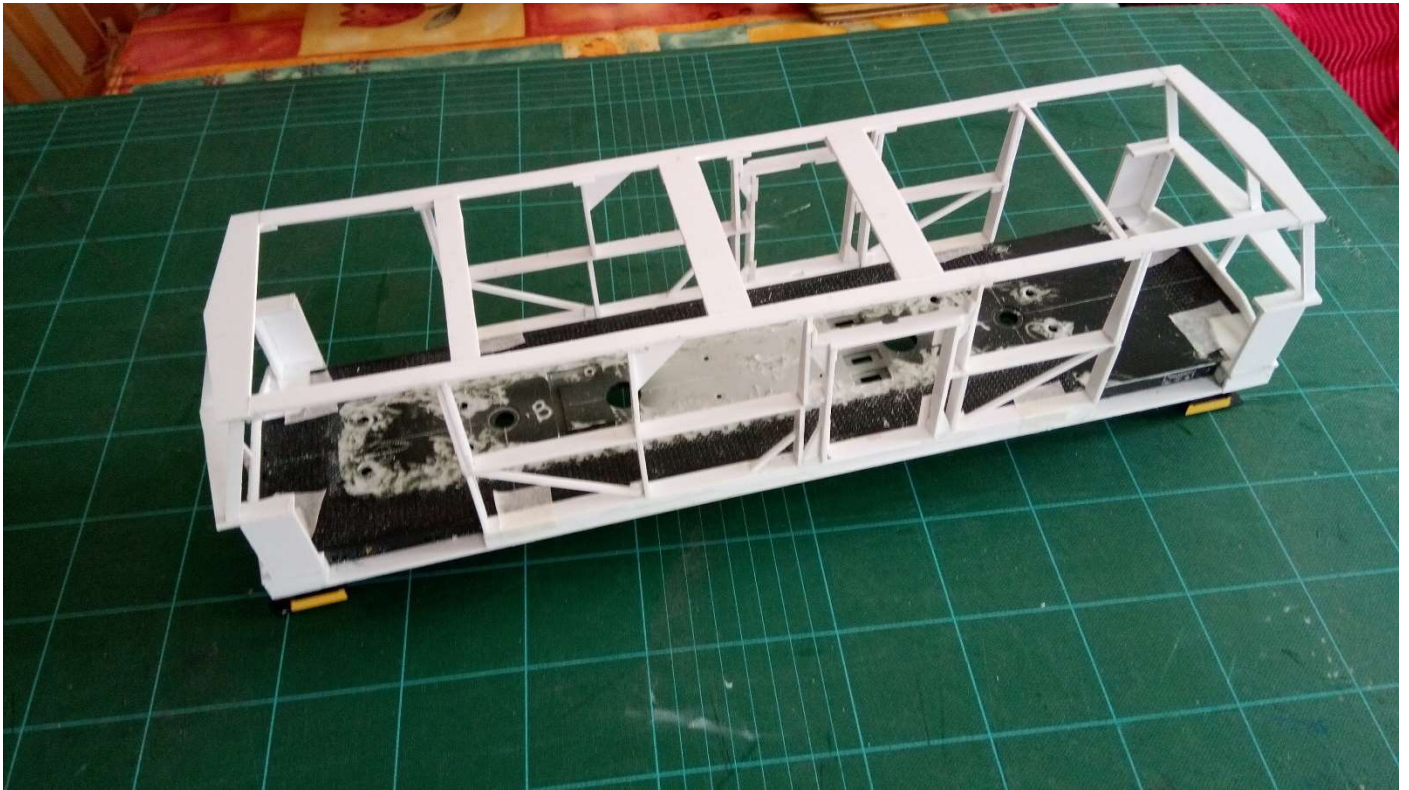
I wanted to make a Bo-Bo wheel arrangement affair. After a considerable number of changes of mind, I settled on a mixture of a class 35 (Hymec), 47, and 87 to a scale of around 1/24, and narrow gauge. My main inspiration was the ill-fated Kestrel from the early 1970's which I was lucky to get a glance at when it was at Crewe. However, it did not turn out looking much like it. The design which evolved had some elements of a class 56 and so I settled on naming my effort as a Class 56.3 (a mathematical average of various locos I took details from!).

I had a look at parts available to scratch built the bogies but decided that it would be cheaper to use a chassis from a suitable proprietary item. I acquired a USA Trains Alco S4. It is a good length and appeared to have a reasonable pulling power. I have bought items before and when disclosing what I intended to do my comments drew disparaging views. The vendor, on this occasion, was interested in my intentions.



It took a while to draw up a body design and to make sure that the body would hold all the internal electronics and mechanisms. I wanted to have a working smoke unit and a mechanism to appear to 'move' the driver from one end to the other. It is a crime not to have a driver at the correct end for the driving direction!

After a quick chat with Steve at Fosworks a suitable set of gear was acquired using a punchy 19.2-volt battery pack. After checking the internal space again, construction started. It is surprising how much space is taken by the large superbass speaker, the smoke unit, batteries, the mechanism to move the drivers, and the other bits. The first job was to work out where to reposition the ballast weights because they would use too much space in the body. I calculated the volumes and made plastic blanks to be able to re-cast them (in red oil sand) into thin plates positioned under the floor making sure they do not foul the bogies. The remainder were placed inside the re-shaped battery boxes each side of the battery pack. The battery pack needed a large hole in the floor, so I glued two brass hollow square section tubes in a convenient slot in the floor to spread the weight to prevent sagging.



The concept is to build a complete body shell which attaches to the existing floor. The floor 'footprint' is wider and slightly longer than the original. Also, I plan to have access to the switches and re-charging socket in the roof under a small removable piece of roof. I decided to build a skeleton so I could place the internal bits very easily before I put the outer skin on. Also, I wanted a way that I could visualise the body (and possibly change it) easily. Even after drawing it all up little surprises jump out when trying to put it all together. After what felt like hundreds of measurements there were still a few discrepancies. It was certainly easier to alter a skeleton than fully built sides. The floor widening and the skeleton is made from 2mm styrene sheet. I am using the existing roof grilles for the smoke outlet in the roof and using the two side grilles in the new sides.

Photo 01: initial drawings of original and new loco

Photo 02: original loco internal view showing control board and ballast weights

Photo 03 and 04: view from underneath showing new ballast weights

Photo 05: body skeleton frame

ARTICLE BY JEFF FRAY

SPRING HAS ARRIVED, SO TRACK MAINTANCE REQUIRED

So, winter has gone and like most of us your garden railway has been through the rigours of the winter months and in most cases no trains have run and the track is dirty and some of the rail joints will not be making a good electrical path, (for those members that run live steam this will not be a problem one of the benefits of live steam) To get back to the track cleaning some of us will have a track cleaning train that will do the job of cleaning the top of the rails for us, but for most of us it will be down on our knees using the LGB cleaning blocks, which ever you use you will find areas where the trains slow down due to voltage dropping when passing rail joints which can be seen when the LGB track cleaning train stops or when you have finished cleaning and have a test run of the train, it may slow down or stop when passing these rail joints (Fishplate) which means they are not doing a good job in connecting the electrical supplies from one section to the next. You can also check this if you have a voltmeter by placing the voltmeter leads across the track on either side of the joints. Putting your train controller on its highest setting will help or in the case of MTS or DCC, 24 volts should read either side of the joint. If the voltage drops it means the joint requires cleaning. Re-test to check the voltage is identical on both sections.



LGB Track cleaning train if you are lucky enough

At this point if the voltage is different or your test train still slows down the track will need to be taken apart so you can check that the fishplates are tight by removing them (in some cases a new fishplate /rail joint may be required) but first you can try squeezing the fishplate with a small pair of pliers to make a good fit. When you remove the fishplates you will observe that both the fishplates and the inside edges of the rail will be dirty and will require cleaning. At this point a wire brush can be used to remove any dirt and may be some LGB cleaning fluid will help you bring it back to a nice brass and shiny look. (see Photos below)

Cleaning items required to carry out track and rail joint cleaning



In the photo above you can see the four cleaning items required to give you a clean track with good electrical connections. From left to right we have the LGB track cleaning block, Seuthe Smoke and Cleaning Fluid, Massoth graphite paste and the fine wire brush. The last two items can be purchased in LGB form and most are available from Peter at Chalk Garden Rail or Andy at Kent Garden Rail



Dirty rail removed and ready for cleaning



You can see the difference from the photo above. The Rail top is clean plus the fishplate (Rail joint)

Having completed the cleaning of the fish plate and rail heads (both sides) when you re-joined them together it will help to place a small amount of graphite paste into the inside of the fishplate before re-joining the track. This will help with conductivity. After fitting the track back together you can do a test run or check the voltage both sides of the joint to see if the voltage is identical or your test train runs smoothly across that point. Remember that both sides will require the same amount of work.

Some technical ideas

Article David G

REPARING DAMAGED PLYWOOD

For holes and bigger scratches in plywood or styrene: mix multi-purpose wood filler (DIY pre-mixed from a tube) with PVA glue, roughly 3 parts filler to 1 part PVA, into a smooth paste. Apply to holes, cracks, splintered areas etc. For bigger holes apply several coats. When it is set hard (after at least two hours) smooth off with a file and then sandpaper 80-100 grit. To apply the paste I use an old metal nail file or a large scalpel blade.

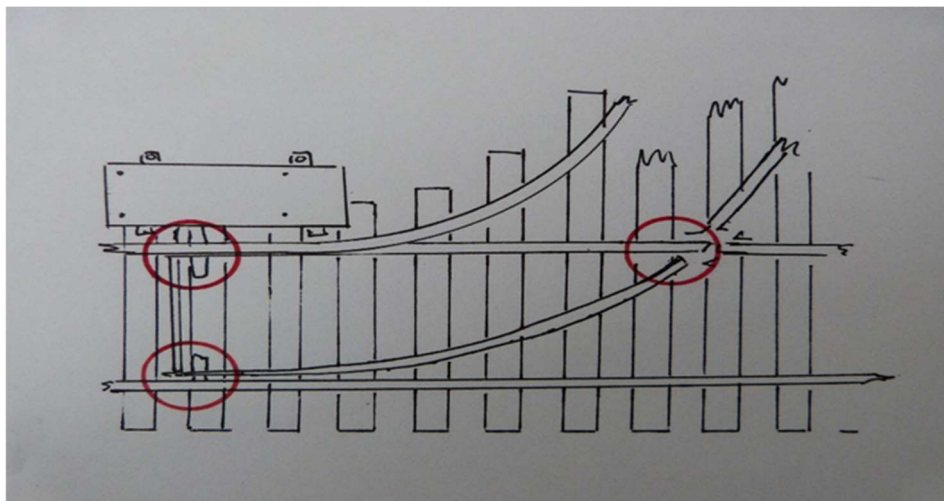
When finishing the surfaces of items made from plywood and the grain shows through the paint. Mix a pre-mixed fine surface filler (used for household DIY) with PVA glue, roughly 6 parts filler to 1 part PVA, into a paste. Work the paste gently to the wood surface with a finger tip. The paste goes into the grain ridges. When dry (after an hour or more), gently finish the surface using a very fine sandpaper (120 grit). If needed apply another coat of paste. This works on styrene as well.

Both of the fillers are okay used on their own but the PVA adds strength and appears to give a smoother finish. I use builders PVA for sealing and priming. I assume any PVA will work just as well. If the finished surface needs to be water repellent then use waterproof PVA. I always apply a primer paint followed by a waterproof paint.

ELECTRIC POINT MOTOR MAINTANANCE LGB (EPL)

Maintaining Point Motors for correct operation after the winter shut down. Firstly, carry out an inspection of the points on the ground for any dirt or ballast that may cause the points switches from moving smoothly. Fine pieces of ballast can be particularly troublesome both outside, inside and around the drive linkage (Throw Rod (4) on diagram below) connecting the electric point motor to the switch blades.

Next electrical issues for example inadequate power supply, check this by using a volt meter testing supply from the main output and checking the voltage reading at the point motor its self, you will need someone to operate the switch controlling the point motor to check this as it only a pulse. Any voltage drop could be a bad connections or damaged wiring. At this point wiring connection can be checked ((1) electrical terminal point) disconnect the wires and clean the wire to they a copper or silver colour depending on the wires used, then reconnect ensuring the wires are secure. Lubrication of mechanical parts of the switches on the ground. Use some LGB cleaning and smoke fluid to clean the areas circled in red, put a small amount of oil on the two front slide chairs and on the frog and check for smooth movement. If possible, use the LGB oil recommended LGB50019 or a fine oil.



THE SWITCH DRIVE (See diagram below)

The switch driver, electric point motor (LGB EPL) can be disassembled carefully for cleaning by removing the 4 securing screws number (3) on the diagram that hold the cover (2) to the base (12) all this area can be checked and cleaned. After cleaning reassemble the drive carefully ensuring that the Throw Rod (4) is correctly positioned when the tab on the pinion gear (7) is pointing straight up and the Throw Rod is in the centre of its travel. Test the movement of the drive before connecting the Electric point motor via the Throw Rod to the required switch blade to drive the points in both directions when installation is complete.

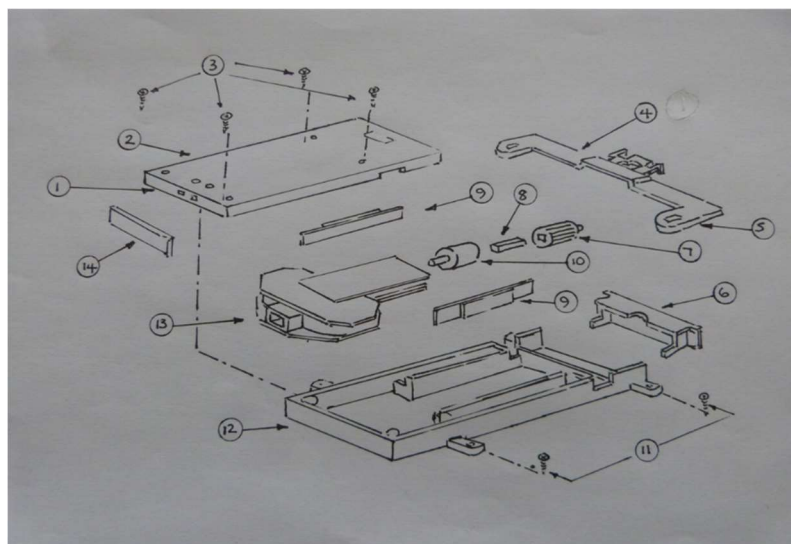


Diagram of disassembled (EPL)

1. Electrical termination
2. Top Lid
3. Fixing screws
4. Throw Rods
5. Throw Rod connecting point to switch blade
6. End part holding Throw Rod in position
7. Drive Gear connecting electric motor to Throw Rod
8. Mechanical drive shaft connecting drive gear to electric motor
9. Packing to hold electric motor in position
10. Electric Armature
11. Track fixing screws
12. Base case for all parts to fit
13. Motor assembly
14. End plate.

VISITING GROUPS AT KENT GROUP WINTER MEETING

UPPER AND LOWER CROFTON

Over the years the Kent group has invited several groups from around the south east to come along to the groups two winter meeting and we have been lucky to have seen some every good portable tracks from these groups , below are some reminders of those days .



This is a fantastic portable track the Upper and Lower Crofton tram way, narrow gauge railway and docks with some great ideas to put a lot of features and well detailed modelling which demonstrated this groups skill in modelling.

CHRIS WORBY INGLATERRA

Chris Worby from the Essex group always welcome at our shows with his variation of portable tracks using the same base boards with different rolling stock and back scenery. Chris at present is building some steam engines that are used on the RHDR down on the Kent coast, should be a article in this summer's G Scale magazine.



INGLATERRA – a Caribbean railway transporting sugar cane from the farms to the factory and docks.

GLEN ALLAN NEW PORTABLE LAYOUT



Glen's needs some information Roger