Cinderbarrow Flyer

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Lancaster and Morecambe Model Engineering Society

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Chairman's Chat

Here we are again, the start of a new running season. I am pleased to say the early start was a great success with 542 rides given and three engines running. I would like to think this can be maintained throughout the season.

I know it's a chore signing up for duties at the track, however thanks to your efforts this seems to be going better than expected, so keep it up. Please also consider being trained for new duties. We are particularly short of trained operating superintendants.

It's also nice to see the Gauge 1 track up and running, it seems to be popular with both staff and the public thus adding to the attraction of the site.

As you may be aware the planning application for the new carriage shed had to be withdrawn since the planning office wanted a full tree survey/ report. This has now been completed and the plans resubmitted, so now we wait and see !!

Regarding take-over of the site little seems to have happened; we are waiting for the County Council to draw up their proposals. As soon as this occurs we will let you the members know.

Geoff Martell Chairman

British India Line just prior to leaving for a run to Carlisle – great fun

From the editor

It never ceases to amaze me how creative and talented our members are. Once again, you have come up with some superb accounts of the projects you've been working on or the activities you've been involved with.

Thank you to all who have contributed to this issue.

I would also like to draw your attention to the new maintenance page in the members area of the web site.

Here you can see what work needs doing at Cinderbarrow, who is managing it and even volunteer yourself. Please help us keep the site up to scratch!

Thank you.

Andrew Dunn

Anniversary Event: Date Change

Please note that the date of our anniversary party has been changed to Saturday 14 Sept.

We hope that as many members as possible will come along and bring family members with them as well – children, grandchildren, etc – and make it a fun day for all.

Further details to be announced.

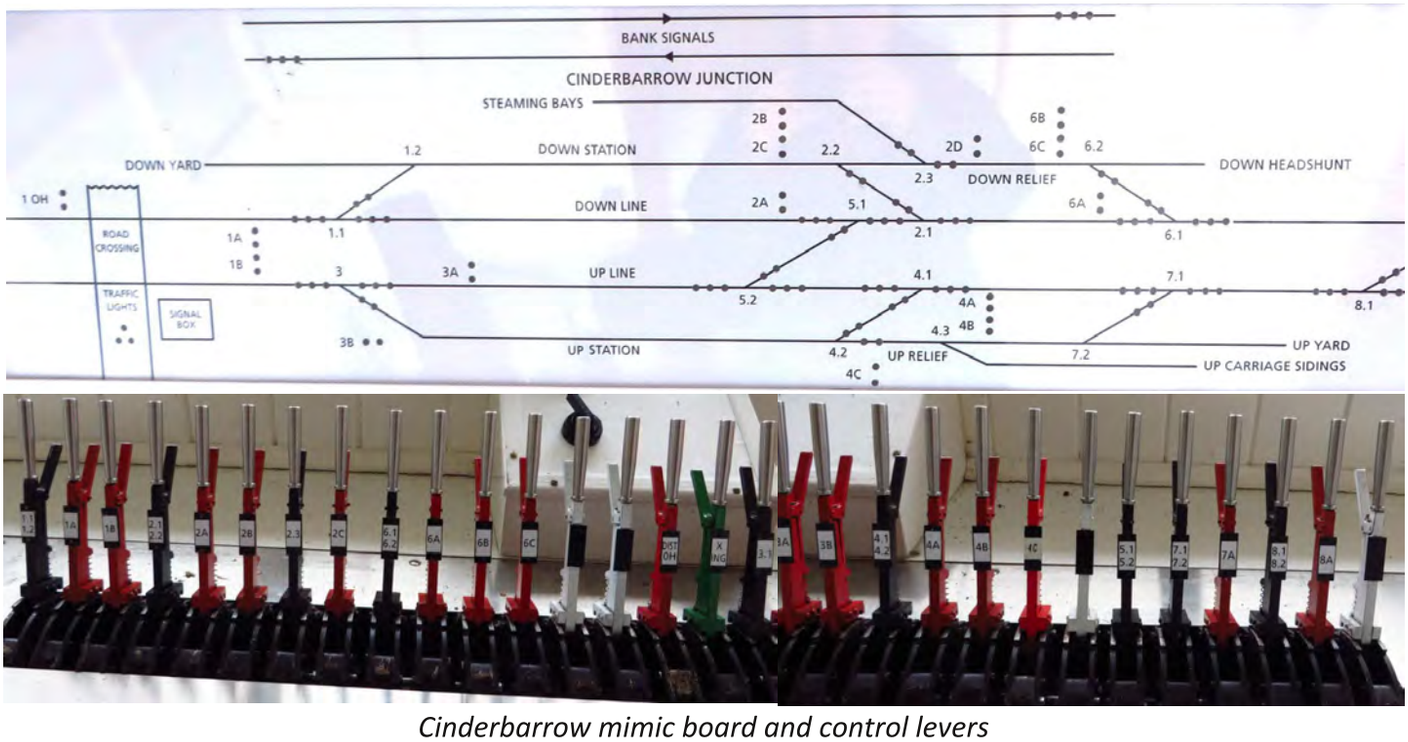
Signal Box Experience

Tony Marshall

Hopefully most of you will have visited the signalbox at Cinderbarrow and seen the mimic board and row of miniature levers to control most of the points, signals and level crossing lights.

enable all trains to proceed in the direction they wish to go at the time they want to go there. Add in loss of steam pressure, the need for water and sometimes refreshment breaks and in my experience

that within hours of booking all available slots for the two train day experiences were fully booked for the year. On the day, I turned up and met their very friendly hosts and enthusiastic team of



Cinderbarrow mimic board and control levers

Some of you will have been shown how the signals and points are interlocked so that trains can only be signalled to proceed according to how the points are set. This is all prototypical.

Underneath the bench and underground there is a mass of wires and air lines which provide the interlocking and actually make the points and signals move.

Anybody who hasn't been in the box is very welcome to visit, and while there, why not have a go at running the railway? Full tuition is provided. The challenge is to

nothing ever goes exactly to plan. Perhaps next time.

Having become familiar with the use of the miniature levers and features in our signal box I started to wonder what signalling would have been like on the full size railways. Reading about various preserved steam railways on the internet I happened to find an advertisement for "Signal box experience days" at the Embsay and Bolton Abbey railway. This seemed like an opportunity too good to miss and not too far to go, so I quickly booked and found

volunteers. For those who are not familiar with the railway, it is just north of Skipton and you can guess from its name where the principal stations are. It is a 5 mile long, mainly single track railway with the main station at Embsay. On operating days either one train is run doing about four round trips or two trains each doing about four round trips, each setting off from opposite ends of the line and passing in approximately the middle. The railway is similar to ours in many ways but to a different scale. Their round trips are there and back on a

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Signal Box Experience – Continued

Embsay station signal box and yard

nearly straight line whereas our round trips are nearly circular. The track is connected by rails to a mineral line which runs into Skipton and joins the main line but actually running trains on this extra part would require major changes to the signalling systems on the railway so could cost nominally about £1,000,000 just to allow control through the national network.

The day started with a session in the Embsay signal box and then it was down the line to Bolton Abbey for a short break before returning and alighting at the Stoneacre signal box which is at the half way passing point.

Inside Embsay signal box

After spending the afternoon there, it was back to Embsay.

On first view in the Embsay signal box, much of the equipment looked familiar but then the differences started to become apparent. I realised that most things are a bit more complicated and much bigger. Pulling levers didn't mean flicking a hidden switch but physically pulling wires and rods to signals and points quite a distance away. As well as complicated interlocking mechanisms there is an extra level of security added which is provided by the blue levers. As well as changing the points, any points that are facing the train must also be locked into position and that is what the blue levers are for.

Stoneacre signal box

Just as we have track circuits on our railway there are also track circuits by some of the points and these help to control allowable train movements. When a train has been registered as present then the points and signals cannot be changed until the train is clear.

There is a mimic board but theirs is only a track

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Signal Box Experience – Continued

diagram. The various clocks and indicators show how points are set and control some of the interlocking. Everything had a purpose and had to be used in precisely the right way as any accident at full size could be very serious.

Inevitably when working on a railway health and safety is critical. I had to wear an orange hi-vis vest to show that I was a visitor and I had to sign that I was capable of climbing ladders, which was important for getting off and on the train at the second, remote, signal box. There were no spare seats on the train that I needed to use so unfortunately(!) I had to travel in the cab of the class 37 diesel that was running that day and then climb down onto the track to get to the signal box at Stoneacre.

During much of the day I was able to do most of the work so it wasn't a "watch what we do" type of experience. It makes for a great day for the participant and an easier day for the volunteer signalmen. The railway is single train working, token controlled, over three sections. Tokens had to be exchanged which was another experience on the day.

Inside Stoneacre signal box

Inside Embsay signal box
There were train movements about every 45 minutes during the day so plenty of opportunities to be pulling levers and no excuse really for not getting the knack of pulling the really hard ones or remembering the ones that can fly back when released. A cloth should be used over the handles at all times otherwise the sweat and grease on our hands will gradually pit the surface of the handle which could lead to rough surfaces and potential injuries.

Stoneacre signal box was much simpler than Embsay as it only controls a passing loop. It is also the change in track section so tokens have to be exchanged here. There are no facilities at the box (not even mains electricity). Afternoon tea is delivered by train (without stopping) and if transferred carelessly there is less tea left in the mug to drink. I don't think that would be allowed on the main line.

Overall the day was a great experience. Everyone was very friendly and even as a visitor I was allowed to get hands-on, under supervision. Allan Haspell, who was the signalman on the day, was very free with his knowledge and made sure that safety issues didn't overpower the day while ensuring everything ran as smoothly and safely as a railway would be expected to. Like ourselves the railway struggles for volunteers.

The yet to be commissioned signal box at Bolton Abbey and class 37 diesel that provided transport between signal boxes

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Signal Box Experience – Continued

While having visitors getting in the way for a day helps with a bit of funding I got the feeling that they hope some visitors will like what they see and become volunteers. When the signal box at Bolton Abbey is opened then even more volunteer signalmen will be needed.

I came away thinking that our signalling is quite prototypical and well arranged. Nearly everything other than one important piece of operating equipment has been miniaturised in our box. Fortunately that essential operating item, the tea mug, is still full size.
I am grateful to all at the Embsay and Bolton Abbey railway for making the day such a great experience and I am happy to recommend it as a great day out. ■

A manual control frame and interlocking controls at the west end of Bolton Abbey station

A 9" Scale Foden

Adrian Nash

For a long time I have wanted to build a large model. To many this means 4" scale or a 7" gauge loco. When I said large, I mean very large. Many may have seen the Foden wagon that I built with my father, this is a 4 1/2" scale model. I have chosen to double this to 9" scale. This would seem daunting and very expensive to many I'm sure. When compared to a 9" scale traction engine, the whole thing is lighter and comprises smaller simpler components. The approximate dimensions of the finished model are:- 6m long, 2m wide and 2.3m high. It weighs in at around 2.8 tons.

The build began by construction of a larger workshop , centrally heated and well insulated. This was finished early last year, the chassis steel was collected and work begun.

Construction of the chassis was relatively simple from 150 X 75 channel. All joints well vee'd out and full thickness welded. The exceptions to welding are the side straps which are cold rivetted with 3/8" mild steel rivets hand set. A good way to get big arms!

The front boiler cradle and other plate components were water cut from 10 and 12mm sheet steel, again a straight forward welding job. The boiler was ordered in November 2017 from TRS at Melbourne in Derbyshire,

Steel Arrives

Riveting side plates

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A 9" Scale Foden – Continued

Welding begins

Chassis assembled

Axle bearing and calliper

and has now had its hydraulic test. I will be collecting it in a couple of weeks.

Next component to be built was the front axle, done over Christmas. The stub axles and hubs are from an Iveco Cargo truck front axle. The donor axle was stripped down to the required parts and the remains discarded.

The largest parts to make are the axle beam ends, made from 140mm diameter EN1A. These are fitted into a length of heavy tube and again welded in place. The king pin assemblies are turned from solid 80mm diameter EN19.

The stub axles recovered from the donor were then welded on. The king pin bearing housings, again from the donor, were milled off flat and the mounting holes drilled out to take M20 hardware. At this point a small adjustment was made and a cut made to produce a 1 degree camber angle for the steering geometry.

Track rod ends are Ford Transit MK1 and main pivot bolt is M30 X 3.5. Next up was the steering box, again nothing too big for a reasonable size of lathe, the square thread cut into a 35mm diameter length of en24. The nut was machined from phosphor bronze.

Attention now turned to the rear axle. The rear bearing housings are in cast iron from John Rex at Pontefract, as are the springs.

Machining the cast housings was pretty straight forward, only the size caused any issue. Using the boring head in the milling machine to achieve the 136mm bore was ok but it was tricky getting the required length of stroke. A bit of use of the DTI was required to machine the

Front axle

Front axle assembly

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A 9" Scale Foden – Continued

housing through and a MT3 extension bar. The rear axle shaft is machined from 100mm diameter EN1A and is 1.8m in length. This is one of the few components that required someone with a slightly larger lathe and is being machined at present up at Gate Beck.

The braking system is fully hydraulic and uses Land Rover Discovery four piston callipers. The master cylinder is Series 2 Land Rover with no power assist, just a three foot long brake pedal. I am currently working on the hubs. These are turned from 165mm diameter EN19 with flanges welded on for the wheel mounting and brake disk mounting ring.

Next rear axle task is the differential, I've had the two main bevel gears and small bevel gears made for me and a trip to Yorkshire this weekend will have them in the car.

Steering shaft and nut

Steering nut in lathe

That's progress so far, I hope to have the boiler mounted by the end of the month and the castings for the cylinder block and trunk guides are due in June. This is when the more interesting part of the build starts.

One point I will make to anyone considering a large model build is make sure you have the equipment to handle the heavy parts. I installed a proper lifting beam with chain blocks and trolleys. Also a 1 ton engine crane is very handy. You will also need a good trailer and vehicle to tow it. Lumps of steel at 150 Kg and over need care when handling! I didn't ever expect the swarf mountain either, I have had many trips to Morecambe Metals.

To be continued...

Brake disk

Rear axle bearing

Starting to look the part

New Training Responsibilities for the Railway

Andrew Dunn

It is a fact that today we are living in a world that is far more litigious than we have ever seen in the past. At the same time the health and safety authorities in general and the organisations that regulate the operation of miniature railways in particular are becoming much more prescriptive in their requirements for the operation of the railways.

There have been a number of cases around the country where accidents have occurred which have resulted in legal action and/or prosecutions being taken against organisations operating the railway or against individuals. Where the organisation can show documentary evidence that all of the correct procedures were followed, the legal action or prosecution can be robustly defended. Without the necessary documentation, the consequences can be severe for both individuals and for the society.

With this in mind, the society has undertaken a major review of all our training guidelines and operating procedures. The trustees have approved a new set of responsibilities for the various roles which we have defined for the operation of our railway. We also must be much more rigorous in our documentation of the maintenance, inspection and operation of the railway.

All members who have been signed off for the various roles will need to be recertified during the course of this running season. This does require you to read the new responsibilities which can be found on the web site at http://lmmes.co.uk/members-only/?target=training (you will need to be logged on first) or you can find them in the clubhouse at Cinderbarrow. You will also need to sign to confirm that you have read the Risk Assessment documents. The Risk Assessment documents can be found on the web site as well.

We would like to stress that all existing certifications will remain valid until the end of the 2019 running season.

Although it sounds pretty daunting, it is all fairly straightforward really and getting certified against the new responsibilites should be pretty easy if you were previously signed off for the role.

To become certified for the various roles, you need to be signed off by the appropriate examiner. The examiners for the various roles are as follows.

Operating Superintendent:
Stan Jackson, Martin Sams

Signalman:
Malcolm Ford, Mike Glegg

Driver - Steam, Electric, IC Locos:
Peter Griffiths, Geoff Martell

Driver - Tregoss:
Martin Sams, David Blamire

Station Master:
Debbie Griffiths,
Gilbert Dugdale

Shed Master:
Dave Clews, Stan Jackson

Guard:
Mike Glegg, David Wilson

Level Crossing Keeper:
Mike Hirst, John McKay ■

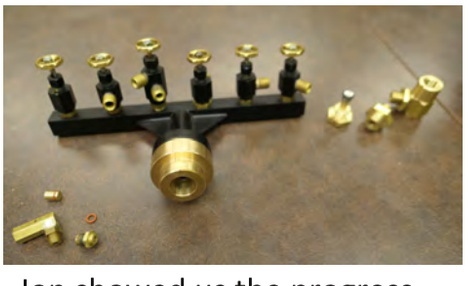
We don't want this to happen, but if it does we need to be ready

Engineering Evening - February 2019

An intrepid band of engineers turned out an a cold February night for another of our engineering evenings when members get together to share their experiences and offer or ask for advice.

Richard brought along an automatic centre punch, which he had been having trouble with. After some discussion and testing we decided it was faulty.

Mike showed the header valves for his new Phantom which he is currently building. It has ports for 2 injectors, blower, steam operated drain cocks with exhaust vent, steam feed pump, hydrostatic lubricator and a spare.



Jon showed us the progress on his boat-tram. He has added seats which can face in either direction, the control stations, produced using photo-etching, and the completed bogies with motors hung from them.

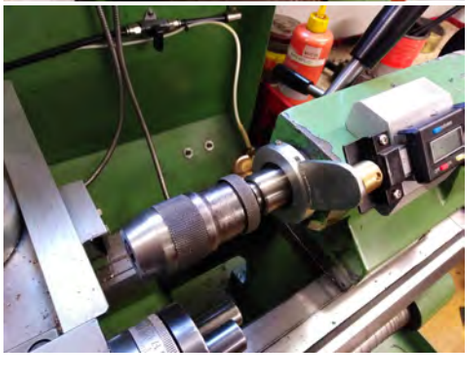
It now runs nicely on his track, but it was quite fiddly getting the trolly pole to work. It is controlled using a special purpose tram controller.

Andrew brought along some parts from the brakes on the 7¼" Bagnall he is building, and some pictures of the frame which is rather too heavy to transport easily.

Martin always had problems with clack valves and he showed us one of new design which has a collar to trap the ballbearing.

He also showed us a DRO that he had made for the tailstock of his lathe.

It attaches magnetically on to the tailstock. Below are some photos of the DRO installed on the tailstock, which, of course he did not bring with him!



The next engineering evening is on Monday 2 September, so why not come along and tell us about whatever you've been working on, or ask for advice if you've had trouble with anything. – Ed.

Bolton Steam Museum
David Lewis

A century ago Lancashire produced more than half the world's supply of cotton. Hundreds of mills were busy spinning and weaving, and bleach works and dye works were thriving. Bolton had 120 cotton spinning mills and about 60 weaving sheds.

Steam engines drove all the machinery in these mills; there were probably as many as 10,000 engines at work in the North West. Nearly all the engines were built by local engineering firms. Most Lancashire towns had at least one firm who built mill steam engines; Bolton had three. Over the next 60 years the Lancashire cotton industry declined, as production moved overseas where labour was much cheaper. As the mills closed, the machinery was scrapped and the steam engines broken up. By the 1960's only a handful of mills were still working.

Some individuals were concerned that so much of our engineering heritage was being lost, and so in 1966 the Northern Mill Engine Society was formed. Society members aimed to rescue as many of the last few remaining engines as they could. They attempted to collect as many different types as possible, to form a representative sample of the engines which were once used. The first idea was to restore and preserve the engines in their original engine houses, but as the mills were demolished and the sites redeveloped, this proved impossible. So the engines were dismantled and the pieces stored wherever the volunteers could find space for them.

The First Bolton Steam Museum

The Atlas Mills complex in Bolton had ceased cotton spinning in the early 1960's. All the machinery was removed and the original steam engines were scrapped. A variety of small businesses now occupied the mill buildings.

In 1969, the empty engine house of Atlas No. 3 mill was offered to the Society as a store for the dismantled engines. The members soon realised that it would make an excellent museum. So the building was restored and 7 engines from the collection were erected.

In 1970 the BBC "Chronicle" programme ran a competition for industrial archaeological projects, and the society won first prize! The prize money was used to purchase an electric overhead crane, to make the work easier. A steam boiler was installed, so the engines could be run in steam and the museum first opened to the public in April 1983.

About 5 steaming days were held each year, and schools open days were run in term time, sponsored by local companies.

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Bolton Steam Museum – Continued

The New Bolton Steam Museum

In 1991 the Atlas Mills site was sold for redevelopment by Morrison's supermarkets, and nearly all the mill buildings, including the first museum were demolished. Morrison's offered to move the Society's collection into a much larger building at the rear of the site; the old warehouse where the bales of raw cotton were stored for the mills.

The last Open Day in the old museum was held in December 1991, and the engines were then dismantled for transfer to their new home. Morrison's completely refurbished the building, installed concrete foundations for the engines, and paid for the cost of moving tons of engines across from the old museum to their new home.

For the past 27 years the Society has been busy rebuilding the engines in their new home. All our members are volunteers, working on Wednesdays and Sundays. A 'new' (35 year old) gas fired boiler was given to us, and now most engines can be seen running in steam on our regular Open Days.

We believe we have created one of the best museums of stationary steam engines in the country, and we are always ready to welcome new members to the society who share our interest. We have over 200 members, mainly from the UK, but with a few overseas members. You don't need to be an engineer or a steam expert.

Open Days, which are usually held on Bank Holiday weekend Sundays and Mondays (though not at Easter).

We produce a magazine and a newsletter three times a year which keep members in touch with developments. We achieved full "Accredited Museum" status with the MLA (Museums, Libraries and Archives Council) in 2010. The Society is a registered charity (No. 532259) and a company limited by guarantee.

For further information, see our website www.nmes.org . Visitors are welcome by prior arrangement on Wednesdays and Sundays, or on our regular Steam

For further enquiries, please contact either

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Mini Land Rover Project

Part 1: Introduction, Design & Body Tub

Richard Brigg

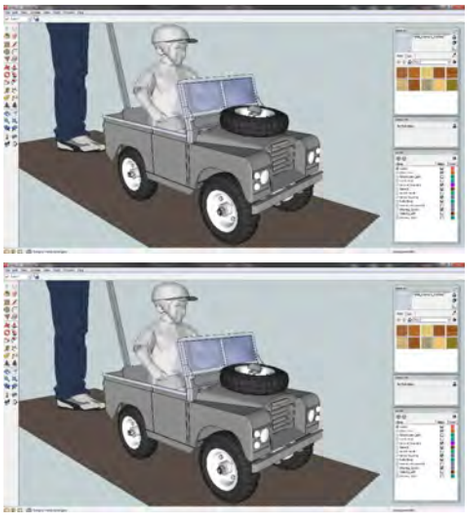
It all started over 5 years ago whilst my wife was pregnant with our boy Alexander. My father stumbled across the details for a company called Toylander who make half sized Land ride on Rover kits and he ordered a build manual and set of plans for me. So I started thinking about the build of one and of going a little off plan and basing it on mobility scooter hardware. I turned the plans in to a 3D CAD model in the free software Sketchup and whilst on paternity leave I built a half scale model in foam board to get a sense of the construction. Then, a few months later whilst looking at it one day, I had the sudden realisation that a half sized one seemed about the right size for Alexander until he'd be big enough to enjoy a full sized Toylander.

I created a new 3D model version scaled down 50%

Alexander aged 16 weeks having a first go in the mock-up

And then again aged 1yr old

and changed a few bits here and there where the simple down scaling had created problems like issues with material thicknesses or features that were too small. I thought I'd make it a series III just to be a bit different, plus it's the shape of the Land Rovers I remember from when I was little! I tried to include enough details and styling cues of the original like tapering in of the windscreen to create an unmistakable Land Rover shape but to keep it more of a caricature of the original than a true scale model version. Also bearing in mind it was to be a working ride on toy for a toddler! My original thoughts were for it to be a simple push along version with a handle on the back and possibly for a lift out floor and working steering such that Alexander could shuffle himself along in it.



An initial stumbling block was trying to find some good looking wheels. I got some solid rubber lawn mower ones, but they just didn't look right. But a bit of internet searching came up with some excellent 8" pneumatic castor wheels and from the first moment I sat them next to the foamboard mock-up the project was on!

With the kind permission of Toylander, I exported 2D CAD data from the 3D model for the body tub panels and sent it to a local plastics fabrication company to laser cut from 6mm MDF. It saved me a lot of time on a mini bench saw & with a jigsaw and at an accuracy better

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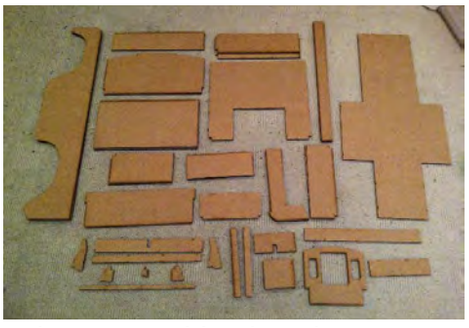
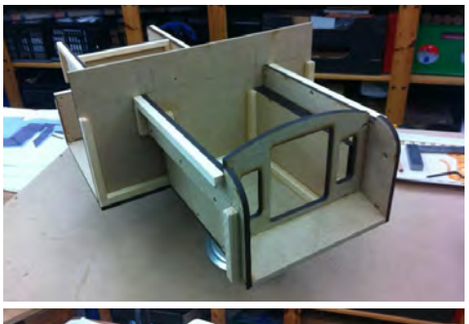
than I could even measure myself with a tape/steel rule, never mind cut out!

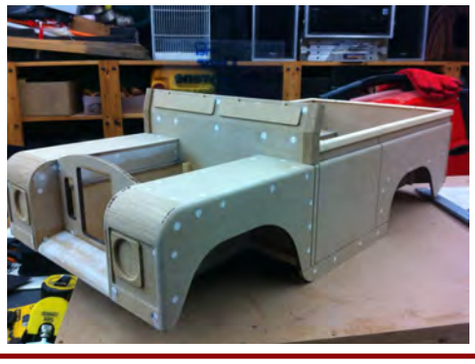


The general body tub assembly was relatively straightforward as I'd created a series of assembly steps in the 3D model based on the Toylander build manual with a few variations to check that I wouldn't get into a position of needing to assemble a panel but not having enough space for access with a drill or screwdriver. It went together with almost all panel joins glued and screwed with 10mm pine batons which is exactly the same way the full sized Toylanders are put together for extra strength. I also built numerous jigs for the router along the way for cutting panel lines and a few recesses.



One of the few curved features of the body that cannot be formed by simply sanding or by running a radiused router cutter down an edge is the front wing tops. Toylander achieve this in their design with aluminium sheet but I thought it was small enough to form out of wood. So my newly acquired (2nd hand) Chester metal working lathe was abused with a little wood turning. I screwed four lengths of square oak stair spindle together to form a block and turned them down to the right radius. Then unscrewed them to release the quarter circle profiles and simply cut to length.

The body tub came together, and I gradually added more and more little details. MDF for the dashboard, bulkhead vents and rear tail gate. Pine 90 degree beading for side capping trim. Iron on oak veneer for rear light trim. And slowly it started looking more and more like a Land Rover as time went on.



The other main curved feature is the bonnet. Again Toylander achieve this on their more simply shaped series I and II bonnets with aluminium sheet over MDF ribs and most builders simply buy them preformed to save the hassle. Mine was going to be the more curvy series III shape and my first attempt (more on that later) at constructing the bonnet was in MDF. I took the part in the model, sliced it up into a series of sections and printed it out 1:1. Then I cut out all the profiles with a bandsaw and simply glued all the sections together.

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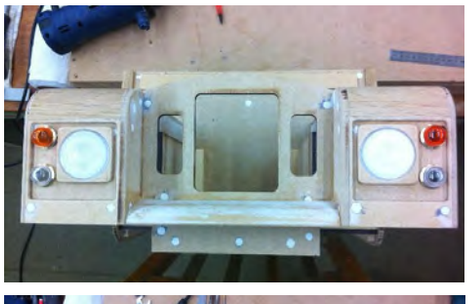
Mini Land Rover Project – Continued

Then with a combination of flattening the base with a router, hand shaping the top then routering and hand shaping the front lip I'd formed a rather fetching little bonnet.

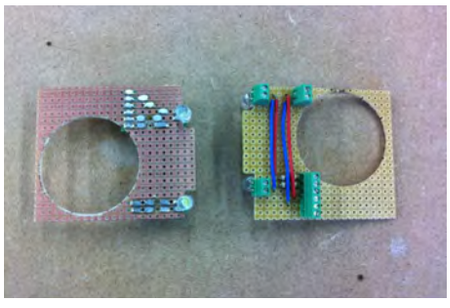
So about all that was left to do to the body tub at this point was the windscreen, a seat back and dummy lights, but it was about here that the project took off in a different direction!

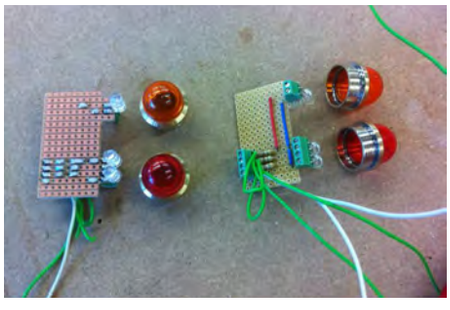
I had already found the website of the Toylander Owners Club Forum, where different builders have posted all sorts of questions and answers about different aspects of their builds. So once I had started my build, I started posting regular updates and created a build diary in the "custom" section. It wasn't long before my project had attracted the attention of another small version builder. He was just in the middle of doing a slightly scaled down version of Toylanders WW2 Willys Jeep and he was making his electric driven and remote control. With only the smallest bit of persuading I decided to change tack and make the little Landy electric drive and R/C as the thought of seeing Alexander driving his own Landy through the park aged 18 months seemed quite amusing. And I am a Controls Systems Engineer after all so the electrics and R/C should be manageable!

Once I'd made the decision to go to an electric drive, remote control and have power on board I immediately scrapped the idea of dummy painted lights and to go for working ones. I found some nice small domed control panel indicator lenses to use for the side, indicator and brake lights online. I had to turn the brass bezels down slightly and to shorten them. The headlights were sourced from another online electrical supplier and are LED downlights made up of an LED back, reflector bowl and a diffuser lens.



The original inner lamp fittings for the side, indicator and brake lights were much too large so I made some bespoke stripboard circuit boards with LEDs to mount behind the lights with drop down resistors to run the LED's of a 6V supply.





I came across an online laser cutting service and sent them the CAD profile of the front grille. This is cut from 4mm mild steel which I then got engraved by a local supplier to my office in Bolton. I got 4 weld on studs

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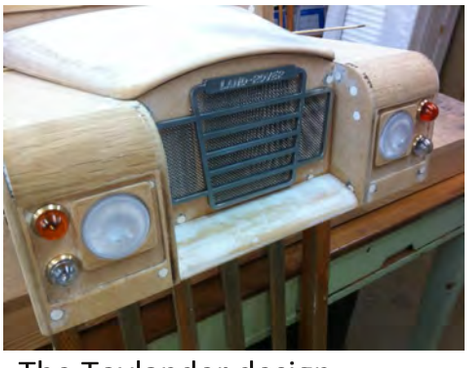
fired on by one of the lads at work and it's backed by a piece of stainless steel mesh. This has turned out to be one of my favourite little features of the Landy as I think it really stands out as one of the classic identifying features of the Land Rover and the series III's.



The Toylander design windscreens are made of riveted together aluminium profiles. I'd always thought this was rather unforgiving if a child was to fall onto it, so for my design I decided on a steel inner frame for strength clad in an oak capping with softer more rounded corners. I made life harder for myself by incorporating an inward taper towards the top, just like the real thing, as I've always had it mind that at some point I'd make a hard top to go on it when Alexander was too big to ride in it. So I made a small jig to hold all the parts together for welding and then glued cut down oak beading to make the outer frame. The outer frame is held in place by machine screws around the sides and sandwiches a sheet of Perspex for the windscreen. I went through a frustrating

variety of designs of hinges for the windscreen rejecting them on the grounds of them looking too crude or being too sharp a chunk of metal sticking out. I settled on a truer to life design of a protruding hinge block which I made of oak and glued and screwed to the bulkhead and a steel hinge point welded to the windscreen inner frame. This hinges around a bronze

bush which screws to the block when the windscreen is lowered in place between the blocks.

The windscreen is then held

in the closed position with a couple of spring clamp latches.
Then on to the seat. Here I

made the seat variable to account for different sized drivers and give a little growing room. For the short seat, the seat back mounts off a roll hoop. This was made from some scrap stainless steel door handles from work which I cut down and fish mouthed by hand and then had welded up. The longer seat is mounted

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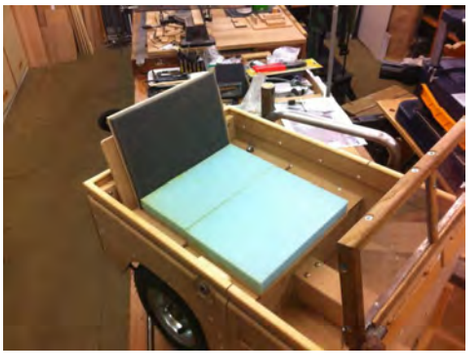
Mini Land Rover Project – Continued

off an MDF base with oak uprights behind for strength and it mounts right up against the rear of the body tub. It has a short additional section of seat base to match the fixed section.
It gives the equivalent of

about 4" seat travel. Both interchangeable seat sections clamp down to the tub with a couple of wing nuts onto fixed studs that protrude from under the rear wheel arches.
And finally, I added a couple



more little scale details to the sides as they seemed a little short of recognisable features compared with the front and rear panels. I routered small recesses into the doors and added small sections of iron on veneer to replicate the unmistakable lift up door handles.
Then thinking ahead to the practicalities of the electrical operation, I created a hidden battery recharging socket where the fuel filler cap goes.

Next time: Drive & steering...

To be continued...

Gauge 1 Cinderbarrow

David Blamire

Following the committee approval to construct a gauge 1 track within the existing area that is leased by LMMES a working group was set up, a meeting held to arrange materials and plan a day for the work to be carried out. Wednesday was chosen for the work day so not to hinder the normal maintenance day on a Tuesday, but it has been changed some weeks to fit in with members going to

Leveling and setting the sockets into the ground for the steel supports

One crisp frosty morning the frames being test fitted between the metal supports

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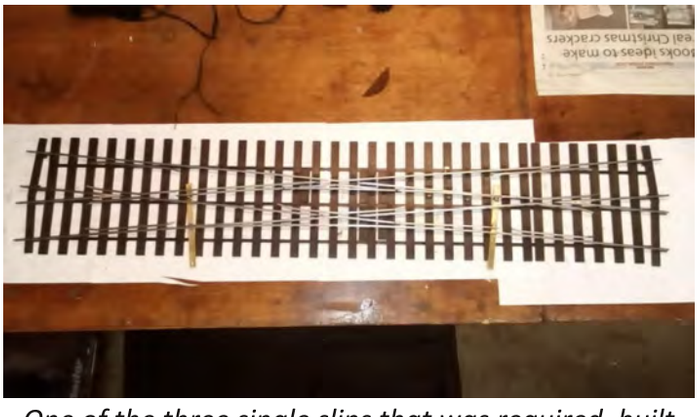
Gauge 1 Cinderbarrow – Continued

Once the frames had been boarded out the timber work was given a second coat of wood stain

Stan and Malcolm working out a list of parts to give out for point building and a turnout plan on the table



One of the three single slips that was required, built by one of the group

Track part laid and looking down the three-way point to the Marshalling yard, rain stopped play

Padiham to meet up with the Local G1 group to run trains.

The proposal put before the committee is for a straight section of raised boarding 36 feet long x 4 feet wide over the siding near the signal box. This allowed us to construct two main running lines, marshalling yard and turntable area. Stan Jackson and I visited timber suppliers and ordered the timber for the tops. John McKay kindly donated the 50mm steel uprights supports and the chairman ordered and cut the steel box section for the cross members.

Work started on site on the 7/12/18 to excavate the holes to allow sockets to be set in so that once erected, if all the sidings are needed for a large event the raised track can easily be removed and re-erected after the event. We only see this taking place once or twice a year, i.e.- GL5 and Open Days.

Geoff and Stan nailing down the final track. The area between them is where the turntable sits.

Over the next few weeks the sockets were concreted in, steel work primed and studding cut. After a two week break for Christmas, work restarted, one team fabricating and painting the steel supports and another cutting and staining the timber work for the top.

One wet working day we had a day in the clubhouse finalizing a track plan so we

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Gauge 1 Cinderbarrow – Continued

The completed layout with a step built by David Blamire within the platform area for small children to stand on, to allow better viewing of the board top.

Malcolm testing out his Gauge 1 ARMIG electric loco

Three locos near the turn table, the J38 waiting to be steamed up, goods train going through the points out on to the running line, passage train on one of the running lines and a goods train on the other.

Stan's 9f in steam and his Flying Scotsman pulling a passage train.

could order the material for point building and the track we needed.
Six timber frames were screwed together to go between the support frames, and these would be boarded later. Once the frames had been boarded out the timber work was given a second coat of wood stain.

The track material was delivered it was split up and 5 members built points from plans Stan and Geoff printed off. In total 6 turnout, one three way and three single slips were built.

Tracking laying could then be started and it was completed over the next four weeks. Point lever work was carried out so that most of the operations can be carried out on the inside of the track so as not to block the view for the viewing public from the platform.

Then came the fun part, the track needed checking and trains running through the points. So, the last working party day one or two locos and a lot of rolling stock made it on to the track.

The day went well with just a few tweaks to the points, so we are ready for the public running days to start in two week's time.

Lets hope we have a good summer to run on the layout. ■

Data Protection Statement

The personal information (such as addresses, telephone number, email address and age details) which members provide will be made available to committee members and other members with specific responsibilities within the society and used solely for administration and insurance purposes only.

Round and About:
External Events

LEYLAND SOCIETY OF MODEL ENGINEERS

Worden Park, Leyland, Lancashire, PR25 1DJ

Sat 13/14 April	Traction Engine open weekend
Saturday 18 May	LNER themed day
Saturday 20 July	LMS Themed day
Sat/Sun 17/18 August	Open Weekend
Saturday 07 September	National 3½" Gauge Rally
Sunday 13 October	Alan Priddey's Diesel Day

Follows us on @LSMEOfficial

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THE DONCASTER SHOW

Come and enjoy a great day out at the 26th National Model Engineering and Modelling Exhibition here at Doncaster Racecourse, our NEW and EXCITING venue since 2016.

http://thedoncastershow.com

7.25" Gauge Society Gala & AGM weekend

Fri 6 to Sun 8 September 2019
City of Newport Model Engineering Society

http://www.sevenandaquarter.org

MIDLANDS MODEL ENGINEERING EXHIBITION

Thursday 17 to Sunday 20 October 2019

THE Show for Model Engineers

2019 marks the 42nd year of this highly regarded and successful exhibition.

As one of the biggest modelling exhibitions in both size, scope and duration, this is THE event for any modeller's calendar.

The show features nearly 1000 models, demonstrations, and both indoor and outdoor displays.

http://midlandsmodelengineering.co.uk

Lancaster and Morecambe Model Engineering Society

Programme of Events Apr - Dec 2019

Fri, 19 April Good Friday	**Public Running**	Public running
Sun, 21 April Easter Sunday	**Public Running**	Easter Sunday public running day
Mon, 22 Apr Bank holiday	**Public Running**	Easter Monday public running day No formal evening meeting
Fri - Sat 26-27 Apr	**GL5 meeting**	GL5 meeting at Cinderbarrow. Members welcome to come and see the railway running to timetable with 5" gauge engines and rolling stock only.
Mon, 29 Apr 7pm	**Trustee meeting**	All members are welcome to attend and contribute.
Mon, 6 May Bank Holiday	**Public Running**	Bank Holiday Public running
Fri - Sun 10 - 12 May	**Doncaster National ME Exhibition**	Doncaster National Model Engineering Exhibition, Details are available on the exhibition's website at http://www.thedoncastershow.com
Tue, 14 May	**Member Running**	Members Running Afternoon
Mon, 20 May 7.30pm	**Presentation**	**Geoff Martell & Peter Griffiths**: CAD and 3D printing using LibreCAD and Designspark
Mon, 27 May	**Public Running**	Late May Bank Holiday Public Running Day
Tue, 28 May 7pm	**Trustee meeting**	All members are welcome to attend and contribute. **Note: Meeting moved to a Tuesday!**
Mon, 3 Jun 5pm	**Members running evening evening**	During the lighter evenings members can come and run their locos in the evening instead of the regular Tuesday slot. Feel free to bring along family, a picnic, barbecue, etc. and make it a real social event.
Mon, 17 Jun 7.00pm	**Quarry visit**	Quarry visit at Holme Park organised by **John McKay** **Meet 7pm at Holme Park Quarry car park.**
Mon, 24 Jun 7pm	**Trustee meeting**	All members are welcome to attend and contribute.
Mon, 1 Jul 5pm	**Members running evening evening**	During the lighter evenings members can come and run their locos in the evening instead of the regular Tuesday slot. Feel free to bring along family, a picnic, barbecue, etc. and make it a real social event.

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Sat, 6 July	**Open Day**	Cinderbarrow opens its gates to our neighbouring Northern Societies. Probably one of the busiest days in our calendar. The day is full, demanding, memorable and very satisfying, what else would you want? Our club room displays a superb table of refreshments for all, with many thanks for the arrangements by members' wives/partners
Sat, 20 Jul 7.00am	**Canal Trip** ***To be confirmed***	**All day event!** A trip along the Manchester Ship Canal. Meet at Travellers Choice, Carnforth at 7am. You must book in advance to go on this trip. *This replaces the presentation on Monday 15 July.* More details to follow...
Mon, 22 Jul 7pm	**Trustee meeting**	All members are welcome to attend and contribute.
Mon, 5 Aug 5pm	**Members running evening evening**	During the lighter evenings members can come and run their locos in the evening instead of the regular Tuesday slot. Feel free to bring along family, a picnic, barbecue, etc. and make it a real social event.
date tba	**Gauge One North West Group**	Gauge One North West Group visit to Cinderbarrow
Mon, 19 Aug 7.30pm	**Presentation**	TBA
Mon, 26 Aug	**Public Running**	August Bank Holiday Public Running Day No Committee meeting
Tue, 27 Aug 7pm	**Trustee meeting**	All members are welcome to attend and contribute. **Note: Committee Meeting moved to Tuesday!**
Mon, 2 Sep 7.30pm	**Engineering Evening**	The night where you bring a project along. This can be anything you are currently working on including drawings. It does not have to be railway biased. Do not forget **<No project no meeting>**. The idea is to discuss various manufacturing processes with a particular emphasis on helping those with limited experience.
Fri - Sun 6 - 8 Sep	**7.25" Gauge Society Gala & AGM weekend**	7.25" Gauge Society Gala and AGM weekend at City of Newport Model Engineering Society. More information at http://www.sevenandaquarter.org and http://newportmodelengineering.uk
Sat, 14 Sep 2pm	**40 Year Anniversary Party Exhibition and Barbecue**	Arrival from 2pm, barbecuing from 4pm. Further details to be announced.
Mon, 16 Sep 7.30pm	**Presentation**	TBA
Tue, 17 Sep	**Member Running**	Members Running Afternoon

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Mon, 23 Sep 7pm	**Trustee meeting**	All members are welcome to attend and contribute.
Sun, 29 Sep	**Last running day of season**	Last Public Running Day
Mon, 7 Oct 7.30pm	**Informal Evening**	An opportunity for members to meet and discuss engineering subjects of interest
Sun, 13 Oct 10.30am	**Annual General Meeting**	All members are asked to attend. Please come along and make it a good meeting.
Thu - Sun 17-20 Oct	**Midlands Model Engineering Exhibition**	Venue: Warwickshire Exhibition Centre. More details at http://www.midlandsmodelengineering.co.uk
Mon, 21 Oct 7.30pm	**Presentation**	TBA
Sun, 27 Oct	**Halloween prep day**	Please come along and help us get ready for our big Halloween night. Lots to do, getting all our props ready in advance will make it much easier on the day!
Mon, 28 Oct 7pm	**Trustee meeting**	All members are welcome to attend and contribute.
Wed, 31 Oct	**Halloween Night**	Our biggest evening of the year when we are joined by a variety of characters to help make this the most memorable of the year's train journeys. All sorts of help is always needed and it is a great fund raiser for our Society. Help needed to set up from lunchtime.
Mon, 4 Nov 7.30pm	**Informal Evening**	An opportunity for members to meet and discuss engineering subjects of interest
Mon, 18 Nov 7.30pm	**Presentation**	**Jon Allen**: Modelling Large Trams
Mon, 25 Nov 7pm	**Trustee meeting**	All members are welcome to attend and contribute.
Mon, 2 Dec 7.30pm	**Informal Evening**	An opportunity for members to meet and discuss engineering subjects of interest
Sat, 14 Dec 12:00	**Christmas Lunch**	Christmas lunch - venue to be arranged
Sat, 14 Sep 2pm	**40 Year Anniversary Party Exhibition and Barbecue**	Arrival from 2pm, barbecuing from 4pm. Further details to be announced.