

by Graham Wickens

I am a relative newcomer to running trains in our garden. Having retired from a career in dentistry I wanted to continue using my practical skills, but in a different way. I spent the first two years of retirement building a two-seater sports car, of the Lotus 7 variety, and then happened to pick up a copy of *16mm Narrow Gauge in Your Garden* from WH Smith and I was sold immediately. The next two years were taken up building a track, a Roundhouse 'Katie' and some rolling stock. Having seen the Riverdale stand at the annual 16mm Narrow Gauge Show, I then decided I wanted to try a coal-fired locomotive.

After a couple of emails to Joep Jansen in Holland, I ordered an 'Amy' boiler kit, a radio control fittings kit, a Regner whistle, firing irons and an extra bag of coal. The kit arrived three and a half months later looking very impressive. Roundhouse supplied the required 'Lady Anne' parts with their usual efficiency. Straightway I set about painting and building the Roundhouse chassis. Having all the parts together at the start was helpful because I realised (having tried the boiler/firebox in the chassis) that it would be necessary to omit one of the frame spacers to allow the large

firebox to drop in. This has not proved to be any problem.

Worked Perfectly Well

Riverdale suggest first building and testing the chassis on air - before removing the cylinders and associated rods in order to shorten the exhaust pipes to fit the Riverdale exhaust tee piece. Whilst sports car building, I learned that nearly everything that is fitted, then has to come off again, at least once, so I decided to try and avoid this, if possible. I had found that the flexible air pipe for my airbrush fitted nicely onto the inlet tee piece. Therefore I went straight ahead and following the instructions carefully, shortened the exhaust pipes, fitted everything on to the chassis and set the valves and running gear up

under air pressure. This worked perfectly well and saved me the whole dismantling process, so I then drilled and pinned the return cranks.

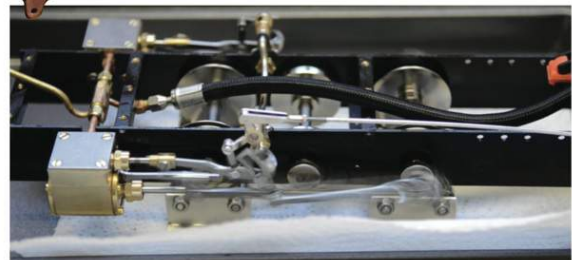
The next job was to paint and fit the cab floor, boiler and smoke box. The illustration of the cab floor and chassis gives a good idea of the size of the firebox and why it is necessary to leave out one frame spacer. It also

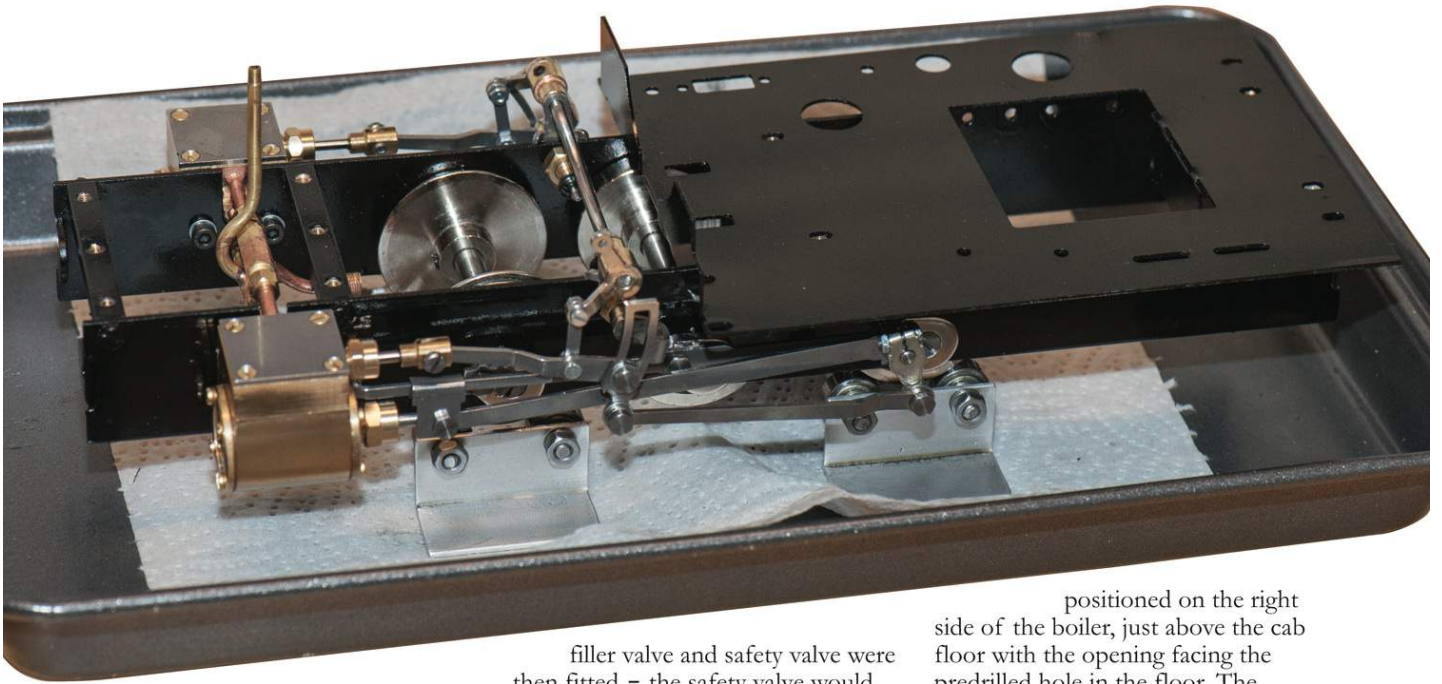


Top: Louie Sam's first outing on the Clunch Pit Line

Above: The Riverdale boiler and firebox as it was supplied, straight out of the box

Below: Setting up the chassis running gear with the air connected to the inlet tee piece





The cab floor in place showing the cut out for the firebox and the holes for the radio control components

shows that the cab floor comes with all necessary pre-cut holes for fitting the R/C components, wires and lubricator. Riverdale recommend using high temperature paint and I opted for Phoenix Precision's High Temperature Black Gloss, which went on very nicely. I would add that I am still learning about airbrushing because this is only the second model I have painted.

Once this was complete the water gauge could be assembled and fitted, with care being taken to check for leaks. The smokebox and smokebox inner tube were fitted together using PTFE tape to create the required airtight seal. It was a little tricky with some trial and error required, but they eventually formed a snug fit. Two vertical cuts had to be made in the Roundhouse boiler wrapper to create two flat flaps at the cab end, to fit against the flat sides of the firebox. When fitting the shorter boiler band at that end it hooked under the flap edge on the right hand side.

Fitting the dome and pipework was next, after which the boiler could be married up with the chassis. The

This shows the position of the whistle, the dome fitting, the short boiler band attached to the modified boiler wrapper and the two supports for the R/C panel

filler valve and safety valve were then fitted – the safety valve would later require altering to a maximum of 58psi later. These were followed by the lubricator drain screw and pressure gauge. The regulator and steam blower shafts could then be fitted to the dome and the steam pipe from the lubricator connected to the inlet tee piece. The combined grate and ashpan was simply assembled from the ash pan bottom – three small spacers, one large spacer and the grate, held together by six small brass rivets that required careful hammering to burr them over.

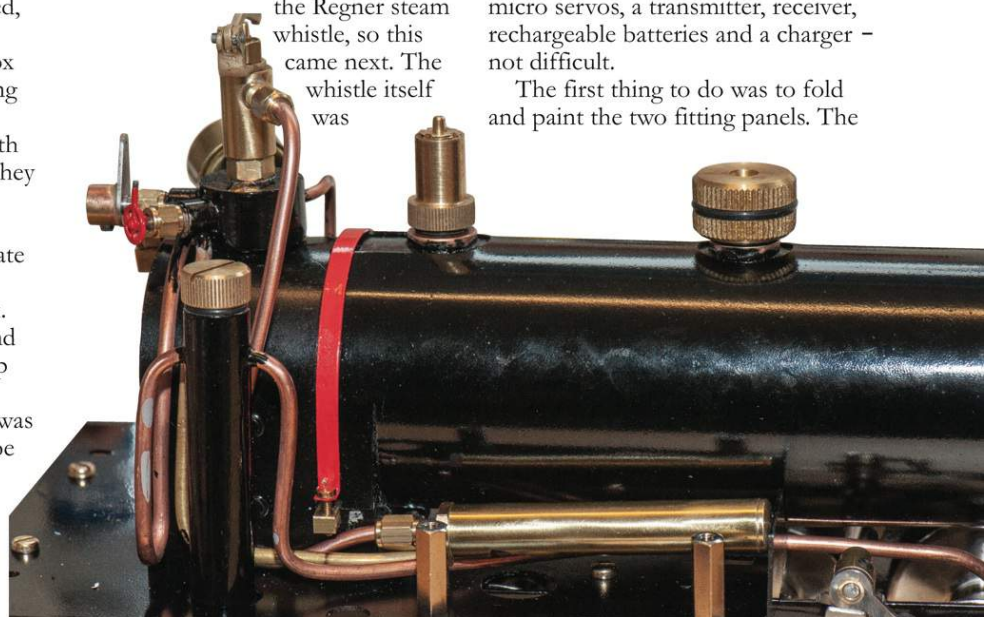
Judicious Pipe Bending

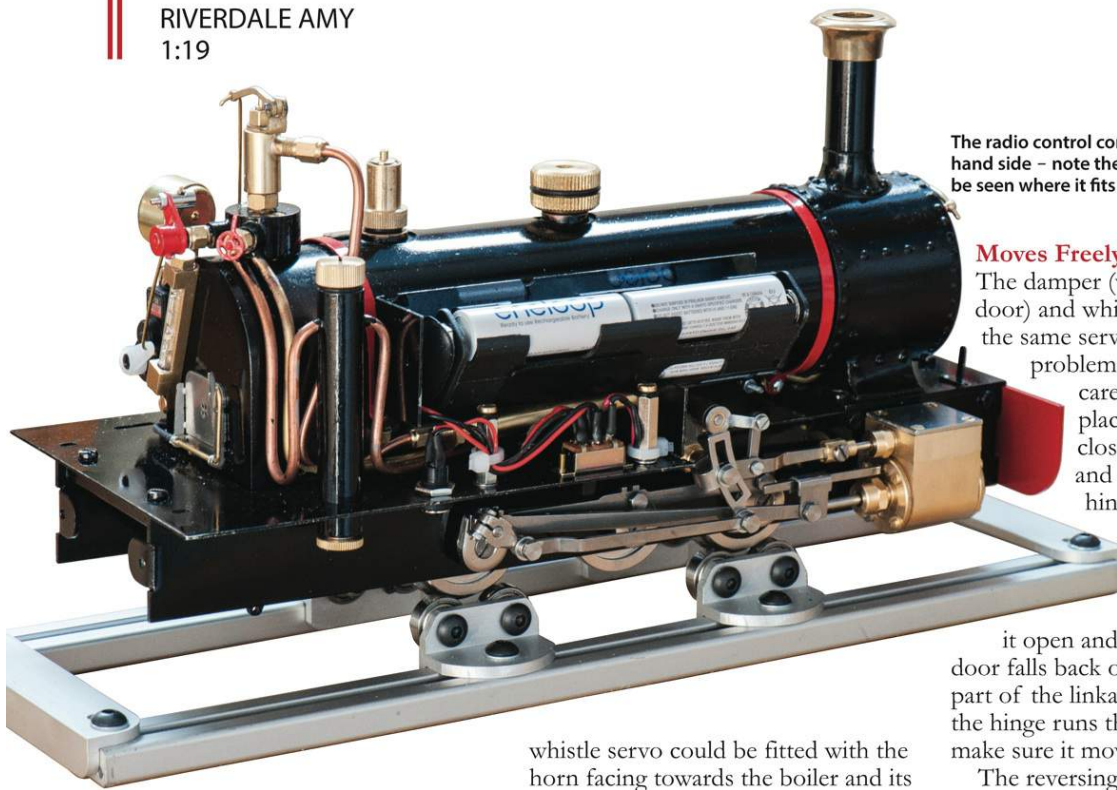
I couldn't resist the opportunity to fit the Regner steam whistle, so this came next. The whistle itself was

positioned on the right side of the boiler, just above the cab floor with the opening facing the predrilled hole in the floor. The control valve sits on top of the dome and so some judicious pipe bending was required to try and get it all right, as can be seen from the illustration.

As previously mentioned I had opted for a radio-controlled model. My garden track, the Clunch Pit Line, requires good control due to a somewhat steep incline. The Riverdale R/C fitting kit was very comprehensive including right and left side fitting panels, battery holder, shrink wrap, cable ties, leads, three-way switch, charging jack plug, wires and tubes for control linking and just about anything else that might be needed. All I had to obtain were three micro servos, a transmitter, receiver, rechargeable batteries and a charger – not difficult.

The first thing to do was to fold and paint the two fitting panels. The





The radio control components on the right hand side – note the damper linkage, which can be seen where it fits around the firebox door

Moves Freely

The damper (which is the firebox door) and whistle are controlled by the same servo, which poses no problems, provided it is carefully set up in the first place. The damper is held closed by its own weight and the position of the hinge. The linkage, which isn't physically connected to the damper, simply lifts

it open and when closed the door falls back of its own accord. The part of the linkage that is parallel to the hinge runs through a brass tube to make sure it moves freely.

The reversing control rod had to be bent and cut then a threaded sleeve soldered on to the cut end to connect it to the servo horn, allowing for fine adjustment. The regulator servo was then fitted and the linkage bent and connected. It then remained for the receiver to be fitted to the panel wall with sticky pads (again supplied).

This allowed me to test and refine the radio set-up under air, using a modified compressed air quick coupling (see photo). I also adjusted the safety valve at this time.

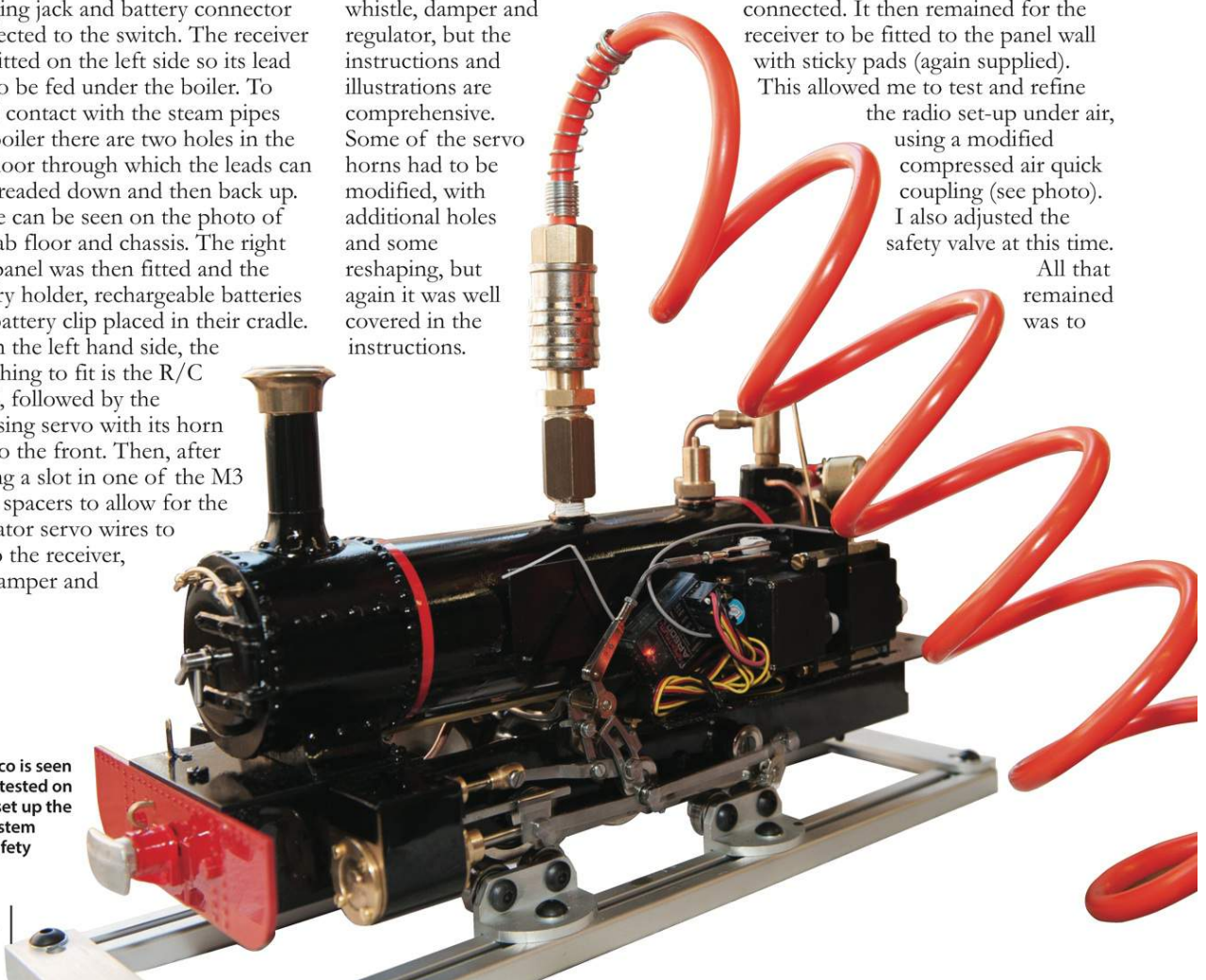
All that remained was to

three-way switch and charge panel jack were fitted to the cab floor in the appropriate holes on the right side and the wiring from the receiver, charging jack and battery connector connected to the switch. The receiver was fitted on the left side so its lead had to be fed under the boiler. To avoid contact with the steam pipes and boiler there are two holes in the cab floor through which the leads can be threaded down and then back up. These can be seen on the photo of the cab floor and chassis. The right side panel was then fitted and the battery holder, rechargeable batteries and battery clip placed in their cradle.

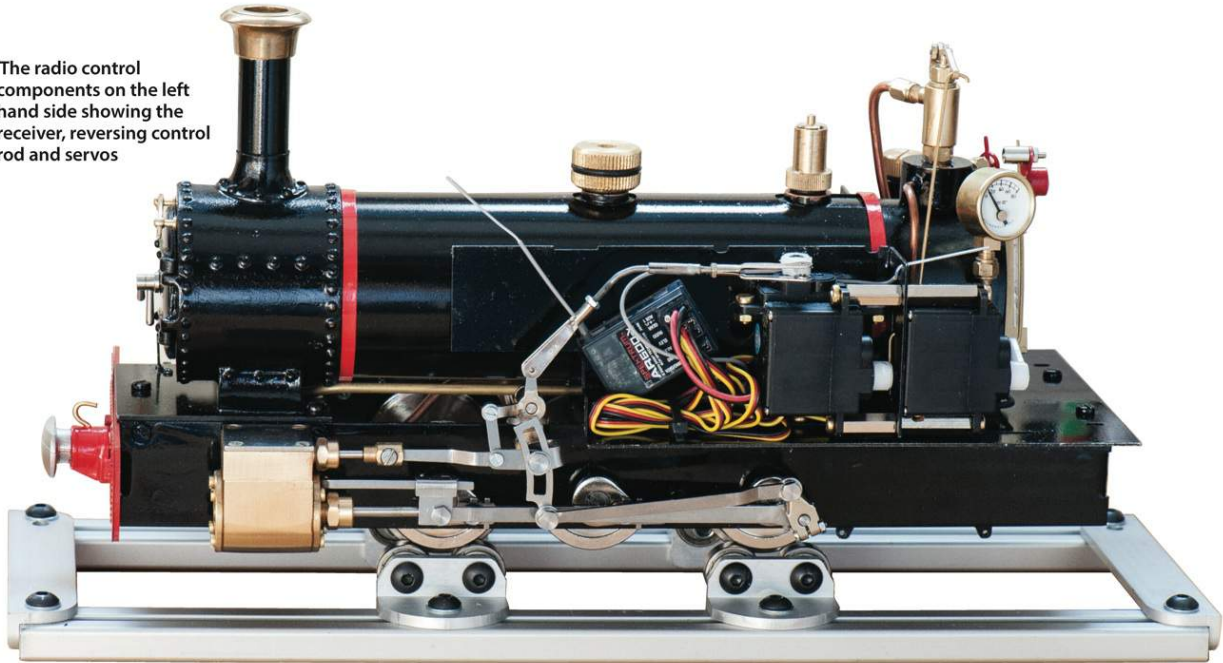
On the left hand side, the first thing to fit is the R/C panel, followed by the reversing servo with its horn axis to the front. Then, after cutting a slot in one of the M3 brass spacers to allow for the regulator servo wires to get to the receiver, the damper and

whistle servo could be fitted with the horn facing towards the boiler and its axis close to the cab floor. I was then taken back to my student days, bending wire for orthodontic braces. Yes quite a bit of wire bending was required to make the linkages for the whistle, damper and regulator, but the instructions and illustrations are comprehensive. Some of the servo horns had to be modified, with additional holes and some reshaping, but again it was well covered in the instructions.

The loco is seen being tested on air to set up the R/C system and safety valve



The radio control components on the left hand side showing the receiver, reversing control rod and servos



fold, solder and paint the bodywork and then fit it. I decided to go for the open back cab to make it easier to get at the firebox. 'Amy' was renamed *Louie Sam*, after our youngest grandson. Then I started the process of learning how to build a good fire. I am getting there and *Louie Sam* runs very well. It was a challenge to build, but it was made easier by the fact that the components from Riverdale and Roundhouse worked well together, being well thought out and well made. I learnt a lot about setting up R/C components, hopefully improved my airbrushing skills and remembered why I didn't specialise in orthodontics (I never really enjoyed wire bending). ■



Above: A rear three-quarter view clearly showing the cab layout on the completed loco

The bodywork painted and ready to be fitted.



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