

THIS PRAIRIE IS NO DOG!

GWR Class 45xx-2-6-2 Tank No: 4500

Manufactured by: Just Like The Real Thing, Pete Waterman Ltd., The Open Studio, County Hall Belvedere Road, LONDON, SE1 7PB 07939 014069

<http://www.justliketherealthing.co.uk>

A story of a build, a disaster and a rebuild.



A while prior to the Mitchell Design kits being acquired by Pete Waterman I bought the 45XX kit. It was to be incorporated into - my then vague ideas of - a Great Western layout circa 1930. The prototype is attractive, big enough to haul some heavy trains but small enough to justify on the smallest of layouts.

That was some years ago and since then my chosen modelling period has receded further and further into the mists of antiquity. It is currently set at the turn of the century and so the 45XX became, (like the same stable's Manor before it), an anachronism. It simply would not do for an 1890-1900 period railway so; I decided to build it anyway for the fun of it and hopefully sell it on to provide funds for more appropriate kits.

Now part of the "Just Like the Real Thing's" stable the kit has been embellished with an extra detail pack. Before the pack was finalised though, I bought from Pete Waterman an early version of his lost wax brass castings for the leading pony truck. Other added items were Carl Legg crankpin nuts, couplings and steam heat pipes, a set of the appropriate Slater's wheels, Guilplates' plates and an ABC gear box.

As with all JLTRT's kits from the Mitchell range, it arrives in a very large and sturdy box, which I find useful for storage of all sort of things, except the finished engine. It is a mystery to me why so many reviewers make an issue of the box the kit arrives in. Anyone who is prepared to spend the time, effort and money to build a quality kit of this nature should, I think, be prepared also to get a proper wooden box in which to carry it about. I want my efforts and

investment in time and money to be as well protected as possible so this one now has a wooden box. (Rant mode off!)

The box contains several sheets of brass and nickel silver etches, bags holding various castings, etc., and assorted lengths of wire. There is also a lengthy set of instructions, isometric drawings for the chassis, cylinders and body and pictures of the etch sheets. The instructions are written for a 4mm locomotive with some alterations. There are however, five further pages that contain essential information that deals with the differences in the kit for building the 7mm version. Included also are full sized 7mm drawing and list of parts.

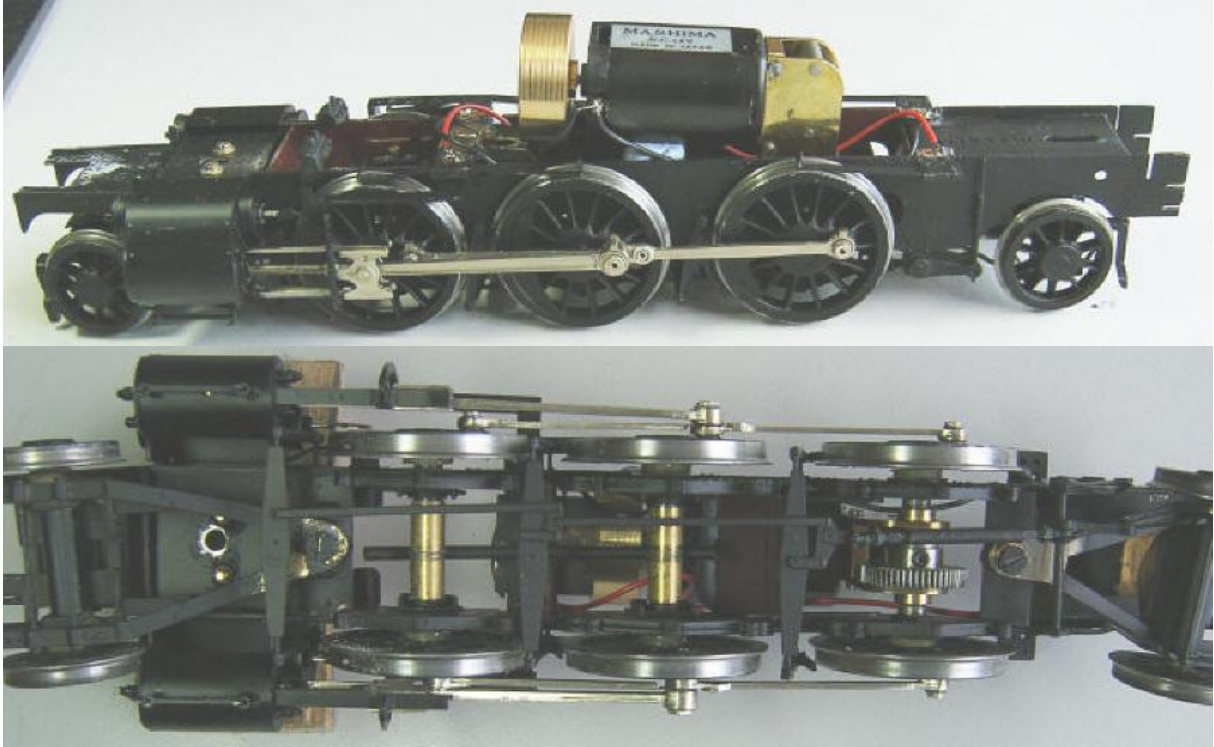
I managed to lose, between buying and building, some of the castings and Pete Waterman (who knows a thing or three about customer service) kindly provided replacements along with pictures of the sprues with identifying letters so that one can match the parts to the name. For those, like me, who do not know the names of all the various parts of an engine, this is manna from heaven and should be the norm for all kits.

I routinely use an RSU together with Carr's solder cream for all of my soldering with the result that very little ever needs to be scraped off afterwards. This saves hours of time that can be devoted to building more kits.

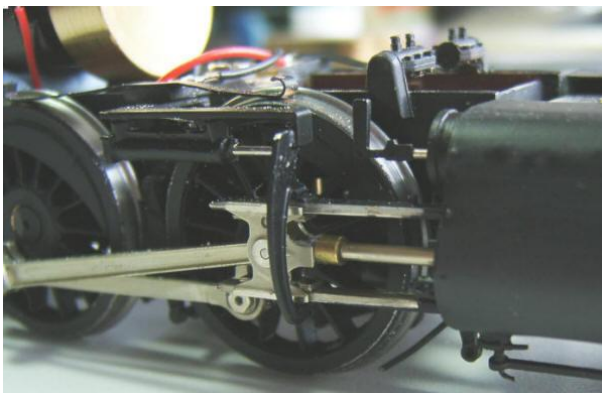
As with all the Mitchell kits I have built, this is well designed and, as far as I have measured, very accurate. The chassis, of nickel silver, is the place to start. Get it square and running well before even thinking about the body. My version was built using the laminated etches for the slide bars, built up slippers and rods but there are now available lost wax castings for many of these in the super detailing kit.

It was not difficult to use the laminated parts; they are a good fit. Once the rods are cut from the fret, do not clean them up. Simply insert tapered wooden pegs into the crank-pin holes in each matched pair and clamp the laminated etches together in the vice. Before tightening fully, apply a liberal dose of flux; do try to avoid getting flux on the face of the rods, it makes cleaning up more protracted. Then, with a really hot iron (about the only time I use one these days and that only because I have yet to get around to wiring up the vice as a negative terminal), using 188 degree solder with 2% silver, allow it to run by capillary action between the laminates. The solder should stand proud of the edge of the rod when you finish. It is now a simple matter carefully to file the rod to final shape. Once polished the join is invisible, the rod strong and of scale thickness. A similar procedure is used for the slide bars, which fold together.

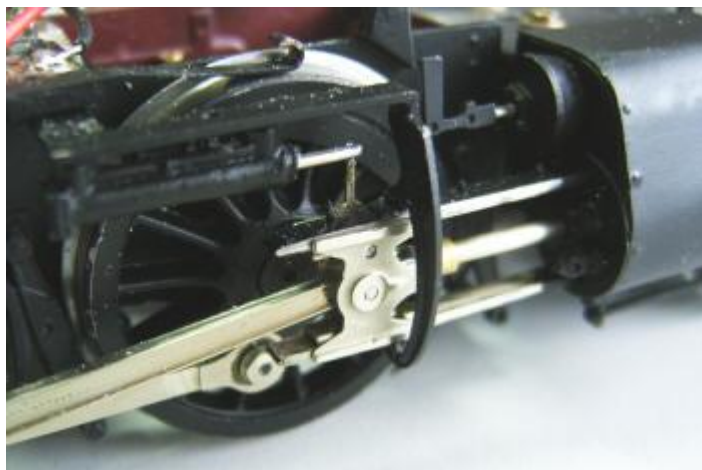
The chassis goes together easily, the compensation system is simple and effective, everything fits and there are the usual alternative parts to do S7 as well.



The cylinders and slide bars, when built up on their bracket, are a bolt on unit and the brass casting for the vacuum pump also fits here instead of to the underside of the footplate. It is a good piece of design. Once the vacuum pump is suitably drilled out, the cross head can be connected to a length of .9mm rod that will slide easily in to it. Do not solder this rod to the cross head until everything else is virtually done. Certainly, not until the chassis has been painted because, once the rod is soldered to the cross head, the cylinder unit is not easily removed without unsoldering it. One of the few instances where I used a soldering iron instead of the RSU.



This is not as onerous as it sounds because the chassis is well designed, once you have it running freely it is a simple matter to complete the detail, paint it and connect the rod to the crosshead. It is worth doing for the realism it imparts, one can almost hear the Phut, Phut as it moves along. (This, of course, one now can do thanks to DCC.)

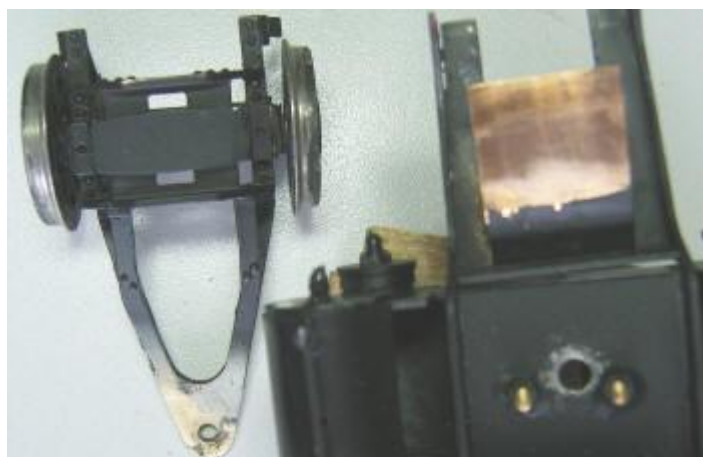


I fitted the coupling and connecting rods using Carl Legg lost wax crankpin nuts. They are available for both Slater's and Alan Harris wheels. The Slater's type will need a 12BA tap carefully run through them to clean up the cast-in thread. Provided that the brass bushes stand very slightly proud (a fraction of a millimetre) of the rods, the

crankpin nuts can be screwed down hard. To screw them down easily you will need to make two small tools. I turned up two pieces steel rod in the lathe, one with a 3.5mm hole and the other with a 4.5mm hole. It is then a simple matter to cut a slot across the edges to fit over the gudgeon pins. Before I invested in a lathe I used two pieces of brass tube with suitable inside diameters and cut a slot in the end as suggested by Malcolm Mitchell.

Use the 12BA nuts that come with Slater's wheels while building and setting up the chassis but once running nicely, replace them with the crankpin nuts. Tighten down hard, cut off the excess bolt length and file them flush. The crankpin nuts can still be removed for maintenance.

I had to put several washers (provided on the etch) on the axles to prevent excessive side play and consequent fouling of the cylinder by the front drivers.



To make sure that the pony trucks (I used the etches for the rear one and castings for the front one) stay in contact with the rail, I soldered some phosphor bronze strip 10mm wide, bent to a Vee shape, under the frames to bear down upon the truck frames. It works well, is adjustable and

allows lateral movement. They are visible in this photograph.

The instructions for the chassis are straight forward and you should have no trouble assembling it. I made wiper contacts from springy phosphor bronze strip (Eileen's Emporium) on all drivers, fixed to small pieces of circuit board (supplied). These were epoxied to the cylinder unit bracket and the rear frames.

They cannot be seen when the body is fitted and bear lightly on the tops of the treads. A hefty brass flywheel was turned up and fitted with Loctite to the motor shaft to add even more smoothness to the running, though, in truth, ABC units do not need it.

I chose to build my engine based upon a photograph of No 4500 in GWR days with straight drop frames, no outside steam pipes, no portholes in the cab front and lettered "GREAT WESTERN" on the tank side. The kit covers most of the variants that existed during the lifetime of these engines.

The body is quite complex but, not difficult if you take time, follow the instructions and plan your moves. This time I had not had the boiler, firebox and smoke box pre-rolled since I have invested in a set of rolling bars. They are not difficult provided one is careful in following the excellent directions in the kit. If you do not have rolling bars then I recommend you get the parts pre-rolled.

There are a few areas in the instructions that need clarifying to make things easier for others to avoid a few pitfalls:

I found it easier to fit parts No: 26 & 27 (the inside cab sides) and floor before fitting part No: 67 (the bunker). It was also easier to fit all the valances before the buffer beams.

If, like me, you want the square drop end to the front of the foot plate then the facing piece is part No: 50 and not as in the diagram.

The tank sides need to be bent round at 90° but the instructions do not state what the radius should be. I found that a 5/32 drill shank did the job perfectly.

Fit the smoke box step (Part No 42) before securing the smoke box in place to the foot plate and the same goes for the snifting valves.

There are some parts that are inherently weak due to the method of production and you will need to strengthen them.

The front steps needed some wire bending to the same profile and soldering to the back or they bend at the slightest touch. It would not take many such movements to snap them off completely. I tried first of all running more solder in the etch line but this proved not to be strong enough and so used some 0.7mm nickel silver rod bent to the profile.

The rear sandboxes are a hefty white metal casting that can be drilled to take the pipes. They are fitted to an etched bracket that, while being very accurate, is also very small with about 1mm to be soldered in under the valance. It is a recipe for future damage so I bent up and soldered on the back of this bracket some extensions that both strengthened the bracket itself and gave a much greater area to solder behind the valance. It is necessary to do this because the chassis is a close fit between them when fitting to the body and makes them very vulnerable. (For the rebuild I also strengthened the joint behind the valance with some 1mm square rod.)

Do also take the advice in the instructions and pack the smoke box with lead before fitting the door. It really does need weighting to balance it out and get some weight over the pony trucks. I filled the smoke box with liquid lead and the bunker with lead sheet, which balanced it well. There is of course a lot more room to fit more ballast in the tanks if necessary as well as DCC chips and speakers.

The top feeds are soldered to the body but the safety valve bonnet is loose, polished up and varnished, then fitted with a tiny scrap of blue tack so it can be removed for re-polishing if necessary.

After a bath and good scrub in Viakal it was washed again in very hot water and dried using a hairdryer. After that no part is touched with bare fingers so that the paint would take well; a coat of Precision etching primer preceded the final painting.

I could not get the cellulose paint to spray properly and, after stripping twice gave it up. I think the weather was just too hot. However, on asking at my local Halfords how long it would take to get a spray can of Rover Deep Bronze Green I was told they could make it up for me on the spot and promptly did; so the engine got painted using acrylic paint instead. (By the way, if anyone knows of a car colour that is a good match for Wolverhampton Green I would appreciate them letting me know. (I have since discovered via Tony Stoker that Vauxhall Jade does the trick.))

Methfix transfers (much better looking than the pressfix type) followed by sprayed Precision satin varnish completed the job.

It runs very smoothly and quietly in either direction and promises to be a powerful engine capable of hauling greater than scale loads.

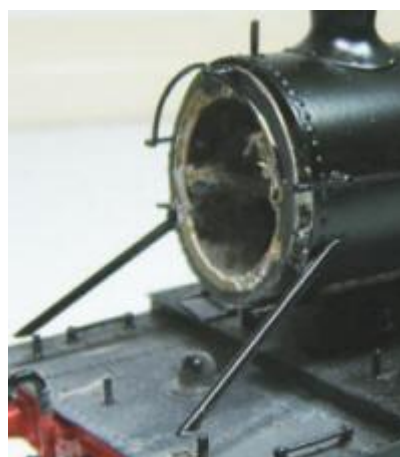
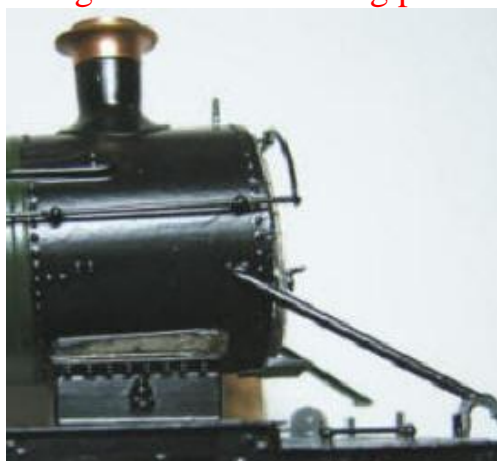
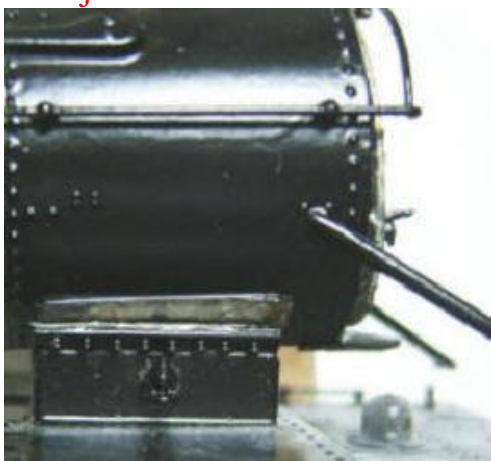
Would I recommend the kit? Most certainly yes, but it is not, I think, a kit for the absolute beginner. I built it almost exclusively using the RSU and Carr's solder cream so there was very little cleaning up of excess solder to do.

What did it cost? (Circa 2002) The kit retailed at £240.00; an ABC gear box, £60; Slater's wheels £57.50, plates £9.00 and crankpin nuts £5.00, total of £371.50. That covers the minimum requirements. My relationship with the suppliers mentioned is simply that of a satisfied customer. All told, a satisfying model to build, what a pity I sold it. Now I shall have to buy another!



This is how it looked when completed originally, before the days of a decent camera and suitable back scene and is the condition my client bought it in. However....

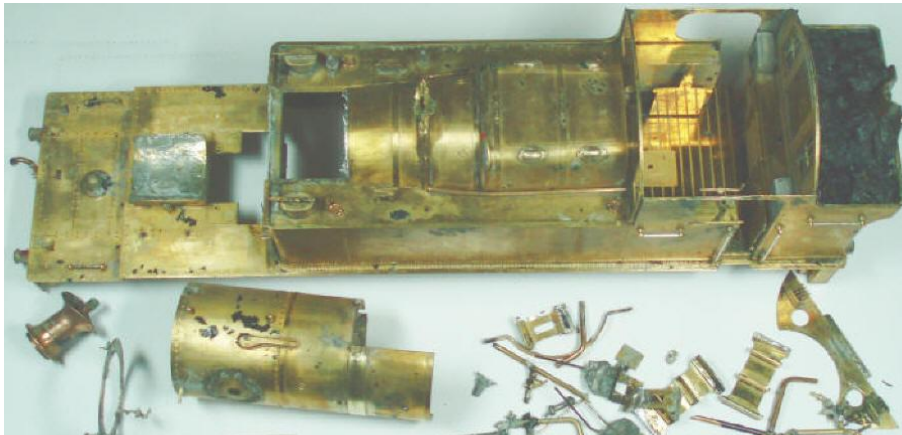
A major disaster occurred with this engine as the following pictures shew.



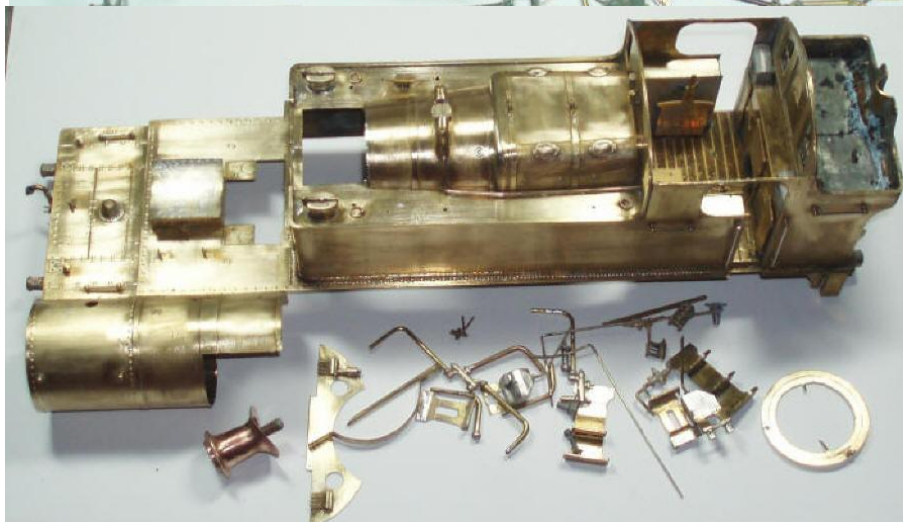
The ballast fitted in the smoke box was a mixture of liquid lead and dilute PVA. It seems, after much discussion on

the 7mm E-group, that the ascetic acid in the PVA has reacted with the lead, or something in it, and the resultant corrosion has swelled to the stage where it has burst the smoke box and lifted it off the saddle, pushed the door off and lifted the boiler away from the tank ends. The sharp eyed among you will have noticed that the buffer plank number is wrong, it should be 4500.

Fortunately, the parts, save for the smoke box door, were all salvageable. The first thing to do was strip of the paint, (very galling, it was only the second engine I have ever painted and, I thought, rather good) which took two coats of Nitromoors and a wash in cellulose thinners but even that did not get all of it off. Obviously, a good paint job! Here you can see that the damaged parts are all removed prior to cleaning up. Cleaning out the corroded ballast from the smoke box took a while as did preparing all the parts ready to be soldered back.



Rebuilding in reality took a good deal less time than the clean-up. Here they all are clean and ready to be put back.

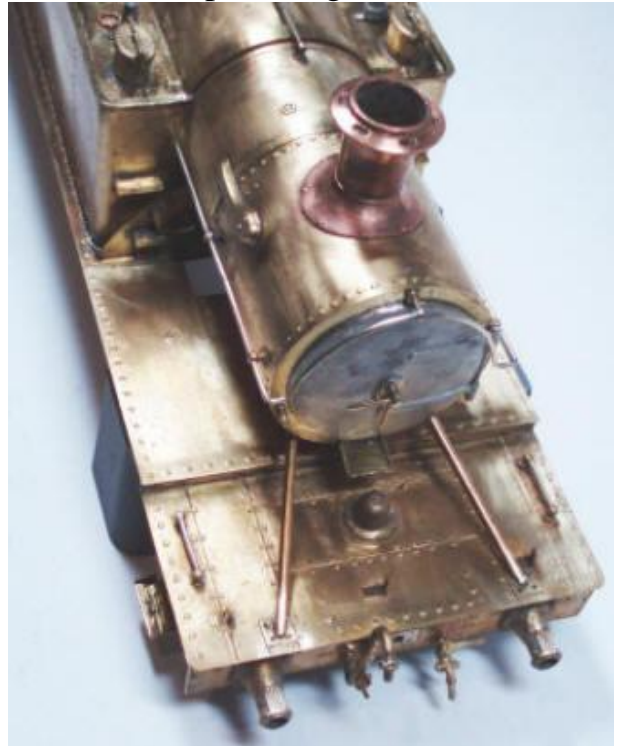


On the next page is a picture of the rebuilt smoke box fitted with half a pound of rolled lead and fixed in with blue-tack. I shall stay away from liquid lead until I have proved it using a powdered form of resin glue. The spares

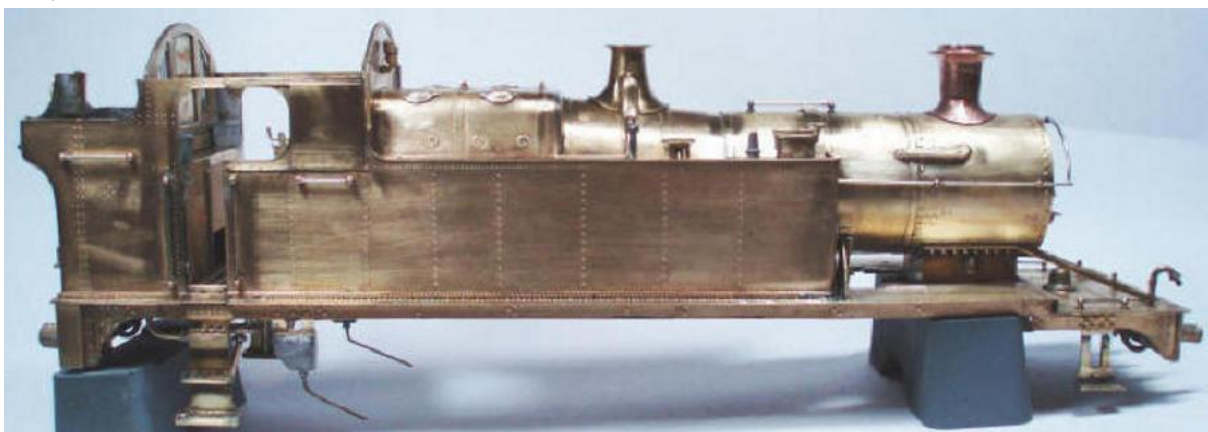
box came up trumps with a lost wax casting from a DJH kit for the lamp iron on the smoke box. However, fabricating another would have been easy enough.



I also took the opportunity to correct the front stays and fit them in their proper place. An error neither I nor anyone else had spotted until I came to take it apart for repair. The safety valve cover is loose fitted in its mounting with blue-tack so it can be removed for polishing.



Here now is the completed repair waiting to go to the paint shop, after I have fitted a spare lost was cast smoke box lamp iron. The front stays were a particular problem, they are flimsy to start with and fractured at a bend line so had to be held together with bits of scrap brass. Very difficult to solder up as the parts were all tiny and close together. But the RSU, steel plate and magnets came to the rescue.



I enjoyed building the kit in the first place and having it back for repair has tempted me to build another. At Telford 2007 I bought another 45xx kit from Pete Waterman (who kindly provided an extra smoke box door for the repair) and a set of Alan Harris castings. I intend to build the small wheeled variety

44xx - one day. It will be interesting to see what changes have been made to the kit.

Here is the newly re-painted engine back from Dennis's ministrations parked in my private siding until we can arrange delivery to its owner. It looks better now than it did originally and a couple of small errors have been corrected too

