BROWN VEHICLES ON THE BURFORD BRANCH **- Martin Goodall**

'Siphon C' (Diagram O8/O9)

Conversion of the body parts of the K's 'Siphon F' kit to produce a 'Siphon C' is a fairly obvious possibility, which quite a few modellers have explored over the years. Rather than buying a complete Siphon F kit for this purpose, I ordered from K's a pair of sides and ends and a spare roof. However, if utilising an old kit or buying one second-hand for this purpose, you would be losing nothing of any real use or value if you acquired a whole Siphon F kit.

Siphon Cs were covered by two different diagrams – O8 and O9. None of the published books and articles referring to the Siphon C correctly identifies the differences between the two diagrams. Diagram O8 was 28'6" over headstocks, 8'0" wide and had a wheelbase of 18'0". Several authors point out that Diagram O9 was 6" wider, but none of them picks up the fact that it was a foot longer, at 29'6" over headstocks, and had a 19'0" wheelbase. The drawing by B J Clarke on page 46 of the HMRS book on the subject is incorrectly stated to be Diagram O8; it is in fact an O9. The diagram reproduced on page 50 of Jim Russell's *GW Coaches (Part 2)* is also an O9, but I have a copy of GWR drawing No. 30453 for the body of an O8 Milk Van, which shows the 28'6" length and 18'0" wheelbase of this first version of the Siphon C.

If you cut up the sides of a K's Siphon F kit as described below, you will get a pair of sides 116mm long (29'0"), which is a nice compromise between the two diagrams! The ends are the correct width for the Siphon F, and therefore for Diagram O8, but the underframe I used (as explained below) has the 76mm (19'0") wheelbase of Diagram O9. In other words, my Siphon C is a hybrid of Diagrams O8 and O9 - which causes me no concern at all.

The vehicles conforming with Diagram O8 were built on Lot 1125 and part of Lot 1133, and were numbered from 1525 to 1542 and 1515 to 1518 respectively. Those which were recorded on Diagram O9 were built on part of Lot 1133 and on Lots 1162 and 1183, and were numbered 1519 to 1524, 1503 to 1514 and 1482 to 1501 respectively. (Note that the change in the dimensions occurred part way through the construction of Lot 1133 so that this Lot covered two different diagrams, just to confuse everybody.)

The sides from the Siphon F kit were easily prepared to form the shorter body of the Siphon C, by cutting out the central panel between the two inner pairs of doors, again cutting down the centre of each pair of doors as explained when describing the construction of the Siphon F. The diagram printed as part of that description also covers the conversion to a Siphon C. The same work was done on the doors, paring off the moulded door handles and hand grabs, and drilling No.76 for the replacements. The hand holes above each door handle were again reproduced by drilling holes above the door handles and opening these out to a rectangular shape with a square needle file.

After the sides and ends had been assembled, a new floor 113mm long by 29mm wide was cut from 40-thou styrene sheet and was trimmed slightly to fit snugly between the sides and ends of the body.

An important consideration for me when planning and building a model is to choose the components and constructional methods which will produce the quickest results with the least effort. Use of the components from the Ratio range, intended for the T47 Brake Third,

provided a good start for building the underframe of this model. The moulded solebars of the K's kit therefore needed to be cut away, and this proved to be a lot easier after I put a new blade in the Stanley trimming knife.

The 76mm wheelbase of the T47 was correct for Diagram O9, although the coach springs were much longer than those used on the Siphon C. When building the model it did not occur to me to check this. Had I done so, I might have decided to change them, although maybe not - I don't think it makes any real difference to the character and appearance of the model.

Having satisfied myself some time ago that compensated suspension can safely be dispensed with in P4, very few modifications were required to the underframe mouldings. The stretcher rods between the axle-guards were cut off, together with the over-scale hangers for the lower footboards. The solebars themselves needed shortening to 113mm to fit the body, and the attached footboards required shortening by a further 3.5mm at the right-hand end to accommodate the Dean-Churchward brake lever.

Flangeless bearings (Kean-Maygib KM472) were inserted in the axleboxes, and 14mm Ultrascale Mansell wheelsets were put in place when the solebars were glued to the floor, so as to ensure that an adequate amount of 'slop' was allowed in the bearings. As mentioned before, this gives the vehicle the ability to negotiate any slight unevenness in the track, which would otherwise be catered for by compensated suspension. The model turned out to have less end-float in the axleboxes than I had intended, and this gave me some misgivings about the vehicle's road-holding capabilities, but in practice there was no problem. Later, I substituted Kean-Maygib EM-profile Mansell wheels re-gauged to the P4 back-to-back setting, as part of the conversion of much of my stock to 'Coarse-scale P4' standards (as previously explained).

Having left the brake shoes off the Low Siphon, I did add them to this model, using the mouldings supplied on the Ratio sprue. I found that the mouldings connecting each pair of brake-shoes were liable to foul the tyre treads. They need to be carefully pared back with a craft knife to ensure that there is sufficient clearance for the wheels to revolve freely. The cross-yokes are all but invisible, and rather than using the D&S etchings (DS100 BG3) as I usually do, I simply connected the backs of the brake-shoes with straight wire. It helps to locate this if a hole is drilled in the back of each brake-shoe. It is a lot easier if this is done before the brake-shoes are installed; I forgot, and was faced with a fiddly juggling act with the drill.

In common with my passenger coaches and other Brown Vehicles carrying 2-foot long buffers, this model was fitted with sprung buffers (MJT 2308S). These were fitted at this stage, as I wanted to check the clearance for the Dean-Churchward brake lever hangers, which were to be fixed behind the solebars just where the tails of the buffer rams projected through the headstocks. As I feared, the whitemetal castings would have prevented the buffers retracting, but the problem was solved by filing away part of the base of each casting to give sufficient clearance.

With buffers in place, the D/C brake lever hangers (taken from a pack of ABS F.315 brake gear or from an ABS F.319 accessory pack) were stuck in place, with their levers, and thick wire to represent the cross-rods. I did not measure this; I simply selected wire that looked about right.

I have always found the lower foot-boards of the Ratio 4-wheel coaches far too fragile, and so I replaced these with foot-boards fashioned from 3mm x 1.5mm brass angle, with rebates cut and filed in the back to clear the axleboxes. With fixed axleboxes on this model, it was easy to cheat by gluing the lower footboards direct to the axleboxes with super-glue, adding purely cosmetic wire hangers behind, let into small holes drilled in the underside of the solebars.

One further item which had to be added was the underframe trussing. This consisted of wire bent to the required profile and glued into holes drilled in the floor, plus pieces of nickel-silver strip. As with one or two other bits and pieces, this was selected by eye rather than measuring it.

After rummaging through various gas cylinder castings in the spares box and finding that they were all too long, I realised that the mouldings on the Ratio underframe sprue were the correct 28mm length, and so these were used to form the cylinder. In preference to using the brake cylinder and trunnions from the Ratio underframe sprue, I chose ABS castings (F.311) for these fittings. The steam pipes under the ends of the vehicle were also from ABS (F.U29), but the vacuum pipes were bent from 1mm brass wire, with thin copper wire wound round them and soldered to fix it. Photos suggest that, when stowed, the vacuum pipes tended to be bent back in a roughly horizontal position, rather than being allowed to hang down.

The kit roof was shortened to 118mm, the moulded rain strips and lamp tops were removed and the roof was rubbed down. Cast gas lamp tops (either Dart RP1 or Mallard 441 025) were then glued in place, and the gas pipes were formed from brass wire and stuck to small styrene strip mounting pads.

This vehicle was sprayed brown on both sides when the rest of this batch of Brown Vehicles was painted. The ends were painted black (as explained previously), representing the post-1928 period. On this model I decided to apply different lettering to each side. One side was finished in the post-1934 livery, in the same way as the Siphon F, but in this case I did add the ‘Siphon C’ branding. There was not enough room for this to fit in a single panel (as it did on the prototype), and so I resorted to splitting the word (“SIPH = ON C”) either side of the vertical stanchion. On the other side of the vehicle, I applied a smaller version of the pre-1934 ‘G W’ letters found on the ‘Methfix’ sheet, slightly smaller than they should have been, but quite acceptable.

Finishing was the same as for the Siphon F, comprising spraying the lower parts of the vehicle with Dark Earth weathering, adding a consignment label to the label clip, and pencilling in a representation of the spring steel clip, then gluing in place turned brass door handles from Blacksmith Models and fitting screw-type couplings from Smith’s Fittings in the headstocks.