Carriage Formations in the BR Steam Era

Ideas for achieving more realistic models

The publication of a new book “Operation West Coast” provides a wealth of new information for the BR steam era modeller interested in creating more varied but realistic carriage formations.
The book details over 170 principal passenger train workings on the Western and London Midland regions taken from the Winter 1956 timetable covering an area centred on Crewe and extending as far as Penzance, Swansea, Holyhead, Liverpool, Manchester and Carlisle. As well as providing the usual train timetables it also shows the motive power used (engine type and shed) and the carriage formation at each stage of the journey.

However, the most interesting information for the modeller is the inclusion of the previous and subsequent working for both the engine and the carriages. It is this information that provides the modeller with a valuable insight into how passenger trains really did operate in the post-war steam era. This proves to be a world away from current railway practice.

The most striking difference from current passenger train operation was the use of single coaches, or short rakes of coaches which were combined together at various stages on route to build up to full length trains, then split off again later in the journey.
A good example of this was the 08.00 “Plymouth-Bristol-Crewe”. This train of western region carriages made its way north via the Severn tunnel and Shrewsbury with 3 engine changes on route. During its journey it acquired 3 coaches that had originated from Kingswear and 2 coaches from Bournemouth to make up a 13 coach load. Although the stated destination was Crewe, the 3 coaches from Kingswear were then attached to a train from Crewe for Manchester, the 2 coaches from Bournemouth were forwarded to Liverpool, and 1 of the Plymouth coaches went through to Glasgow behind a north-bound express.

The use of multi portioned trains was not confined to “cross-country” routes.
It’s possible to identify 3 main reasons for this use of multi-portioned trains, each of which is of interest to the modeller of this period.

The main reason was the desire of the pre-nationalised railway companies, and continued by BR, to provide business travellers in towns located away from the mainlines with a morning service to London without having to change trains and a similar return service in the evening. Thus on the London Midland region business travellers in towns such as Whitehaven, Barrow, Morecambe, Southport, Colne and various east Lancashire towns would be able to board an early morning through coach (or coaches) for London, the coach being worked across to the nearest junction on the mainline where it would be attached to a London-bound express.

The method of moving these through coaches to the mainline provides interesting precedents for the modeller wishing to introduce some variety e.g.

- one or two corridor coaches attached to the rear of a non-corridor local train.
- a rake of e.g. 4 corridor coaches being pulled by an inappropriately small tank engine, heading for the mainline junction.
- a short rake of corridor coaches being pulled by an inappropriately large engine. The large engine would take the eventual combined train forward to London.

The reverse operation would occur in the evening when the through coaches for these towns would leave London hooked onto an express e.g. for Scotland and be dropped off at the nearest junction.

Another point of interest for the modeller is that because the eventual “full length” train was made up of several separate trains, each of which would have contained at least one brake coach, the final “consist” would contain numerous brake coaches scattered along its length. Modellers tend to under-estimate the number of brake coaches to be included e.g. the “Plymouth-Bristol-Crewe” mentioned earlier had 6 of its 13 coaches as brake seconds or brake composites spread throughout its length.

The second reason for these multiple-portion trains is one to which the current-day railway observer would find impossible to relate. During this era the railways carried huge volumes of parcels and newspapers, some of which were carried in dedicated parcel trains. In addition however the majority of passenger trains also included at least one full brake coach for parcels/newspaper traffic. Parcels vehicles were picked up and dropped off during the course of the journey. Modellers tend to under-estimate just how many parcel vehicles, usually full brakes, were included in passenger train formations, in many cases exceeding the number of passenger coaches.

For example the 12.00 “Penzance-Manchester” (via Severn tunnel, Shrewsbury and Crewe) left Penzance with a brake-composite and a second class coach, 3 full brakes and a Syphon G. A brake-composite and a second class coach were added at Plymouth. A Post Office sorting van from Cardiff was added at Pontypool Road so at this stage the train consisted of 2 brake composites, 2 second class coaches and 5 parcel vehicles. The train was re-marshalled at Crewe, with 2 coaches and a full brake going forward to Glasgow, and 2 full brakes plus the PO sorting van going forward to Liverpool. The remaining 2 coaches and one full brake went forward to Manchester along with a further 4 full brakes. Incidentally the 2 coaches for Glasgow went forward from Crewe attached to a different train from the full brake. The train conveying the full brake departed from Crewe first so the parcels arrived in Glasgow a half- hour before the tired passengers!

The third reason for multi-portioned trains and re-marshalling on route is again one which current rail passengers would not recognise, and concerns catering vehicles. Almost every long distance passenger train contained some form of kitchen /dining coaches offering waiter-served hot meals. Some trains even contained 2 kitchen/ dining sets located in different sections of the train to cope with the demand. To spread the use of these catering vehicles across the maximum number of trains they could be re-marshalled on route.
For example a dining set could form part of an early morning south-bound London train serving breakfast as far as Crewe where they would be detached. They would then be re-attached to a different train ready to serve lunch or dinner.
Even some of the most prestigious trains were re-marshalled on route. The 10.00 London-Glasgow “Royal Scot” stopped at Crewe where its rear 3 coaches including one of its 2 dining sets were detached and re-attached to the following Birmingham-Perth.

In conclusion, study of actual carriage formations from the period can give modellers the confidence to run many varied but realistic passenger trains.

Rail passengers in this era would frequently be subjected to waiting in junction stations for 20 minutes or so, most of them unaware that at the front of their train the train engine was removing and re-attaching coaches and possibly being exchanged itself, whilst at the rear the station pilot engine was doing a similar operation. Passengers could incur this delay several times during the course of their journey. It was also crucial to ensure you were in the correct portion of your train at the right time!
No wonder they all needed a hot meal!