

S-Stock Update

by John Hawkins

The first artist's impressions of the proposed SSL standard stock, or S-stock, since those in *Underground News* September 2003 edition are to be found in the July 2006 issue of *Metronet Matters* (issue 13), on their website. Only two internal views of longitudinal seating are shown, but they reveal a substantial redesign. Transverse seats will be provided opposite these, allowing more room for wheelchairs to move through the train. Multipurpose areas will be designated for wheelchairs, buggies, luggage and bicycles, and one appears to be shown with three seats folded along the car side.

The car windows are now much larger, whilst the door windows have been reduced in size. A return to passenger open buttons, at each door edge, is shown, perhaps intended to cut power consumption of the air conditioning. The openings between car ends, to allow free passage through the train, have been enlarged to resemble the centre of DLR units, and door spacing now seems to be even along the train length, three double-doors per car side. Luggage racks have disappeared, but it is mentioned that seating cantilevered from the car walls allows space beneath for cases, although it is not as clear as in the earlier version.

It is interesting that the growing width of London's population requires wider seats.

A- and C-stocks provide 430mm, D-stock increased this to 480mm, but the new century requires 495mm.

The new trains will have a lower floor height for level access between platform and train, which has required underfloor equipment to be compressed into the smaller space. A solution to the increased gap at curved stations is under investigation.

There is no mention of 6-car trains, so C-stock replacements will be delivered as 7-car trains, identical with D-stock replacements.

Colour schemes have yet to be decided. No mention is made of any variation for Metropolitan Line travellers, although this was revealed back in March (NF 40/06).

Extensive customer testing is envisaged, and 500 passengers across the SSL network have already viewed computer generated images to gauge views. About 90% approved – an exceptional result. The next step is a virtual reality model of the train, which will be ready later this summer to provide more detailed feedback. In 2007 a mock-up of the train will be moved around the SSL network for a final round of consultation. No delivery date is mentioned, although entry to service was originally planned in late 2009.

Editor's Notes: It is interesting to note above the reference to "A return to passenger open buttons". The whole history of passenger door control over the last 70 years has been nothing short of a disaster on the Underground, for various reasons.

The 1938 Tube Stock was fitted with door control from new (for the Northern and Bakerloo lines) and many of the Pre-1938 Tube Stock cars had it fitted (for the Central Line). It was never used on the Piccadilly or Northern City lines, despite some of their cars of both types of stock having it fitted. It was also fitted to the O and P stocks on the Hammersmith & City and Metropolitan lines and the Q stock on the District. Because of wartime constraints, it was soon withdrawn from use on the Northern Line, and it is believed that it hadn't been commissioned on the others. The equipment was simply a black rubber button surrounded by a yellow circular housing.

It was the post-war period that saw it reintroduced on the Northern Line and introduced on the Bakerloo, Metropolitan and District lines. Its use was spasmodic, in that it was only used at 'open-air' stations – passengers were confused. Its downfall was also due, in part, to the electrical fires at Holland Park and Redbridge in 1958 and 1960 respectively and the opportunity was taken to decommission it for good. The yellow surrounds and black buttons were initially over-painted red, some were patched over (in red) and later, many were removed altogether. It was thought that this was the end of passenger door control once and for all – LT had been struggling with it for some 30 years.

With the District Line's D stock, however, it was decided to give passenger door control another go. Moreover, when it was in operation, it had to be at every station, be it tunnel or open-air. Illuminating push-to-open buttons were provided, one on each side of the doorway position on the inside, and one to one side on the outside. In practice it worked quite well, once the public had been educated. The problem lay with the D stock ventilation (or lack of it) and in the summer months door-opening reverted to operation by the Guard by fitting the trains with POGO (Passenger Open, Guard's Open) switches. It will be remembered that the D stock was built with no opening windows (apart from the end communicating doors) and all trains had to be modified to have opening quarter lights at the positions where the single doors did not slide back. Despite these expensive modifications, the situation wasn't wholly satisfactory and in the summer months the (by then) Train Operator continued to open the doors as well as close them. The twice-yearly changeover from passenger to crew operation and vice versa involved the whole fleet over a nominated weekend and in the end it was decided that the savings of keeping the doors closed in cold weather wasn't worth the effort. After all, once a door had been opened at a terminal station by a passenger and there being no means of closure, it had to remain open until closed by the train crew on departure, which could have been several minutes hence.

The erstwhile 1983 Tube Stock, which followed on from the D stock after only a couple of years, was given the same type of illuminating push-to-open buttons.

In the meantime, passenger door control was being developed for the Central Line's 1992 Tube Stock, and with it not only came passenger-open, but passenger-close as well, which was to encourage passengers to close the doors, especially at terminal stations in cold weather. Again, this worked reasonably well, once the passengers

had been 'trained'. There were those, of course, that "were born in a barn" and wouldn't close their door after entering the train, especially in cold weather! – those you could never educate. Each door push button, which did not illuminate, was a potential equipment 'failure' and six operative push buttons were provided at each double doorway position. On the door separator there was an 'open' button inside and out, while at the left- and right-hand side of each door position on the inside there was an 'open' and 'close' button on each. It is believed that the "illuminating" element of the push buttons was dropped as a cost-cutting exercise (as was the proposal to fit illuminating car line diagrams inside the train).

The Jubilee Line's 1996 Tube Stock and the Northern Line's 1995 Tube Stock reverted to passenger-open only but the button had an illuminated surround. Although passenger door control did work on both these stocks, it is believed that it was never officially commissioned as far as the public were concerned, as things had become overtaken by events.

Not only was it down to the maintenance expense of such equipment, but a number of incidents where passengers had operated the 'close' button on the Central Line prematurely (often deliberate!), trapping fellow passengers, led to its downfall and abandonment. It came to the crunch when a young child sustained a head injury at Notting Hill Gate by one such anti-social action, after which it was decided that passenger door open would no longer operate. For the Central Line, this meant that the whole system of passenger close and open had to be isolated.

Meanwhile on the District Line, the expected switch over back to passenger-open operation in the autumn of 1999 never happened either and the whole system of passenger door control seems to have been abandoned, to the extent where the refurbished D stock has had the door push buttons removed (on the inside) or patched over (on the exterior).

So whether the passenger door controls shown on S stock is merely "artist's license" or a genuine piece of kit, remains to be seen. After all, passenger door control works well elsewhere – on Network Rail and on the Docklands Light Railway.