

S Stock Deliveries Suspended

by

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Serious Setback

Delivery of London Underground's (LU) new "S Stock" trains, being built by Bombardier as part of the huge Sub Surface Railway upgrade, has run into the stops. After months of rumour and speculation, punctuated with several spectacular "sit downs" of trains in service and with erratic deliveries and low availability, LU has finally decided to refuse to accept any more of them. Peter Hendy, the Transport Commissioner for London, admitted in his report to the TfL board meeting on 7th December, that technical and reliability problems of the Bombardier-built trains have forced LU to put a stop to any more deliveries. Only 21 out of the order for 192 trains have been accepted, although over 30 have been built. This is the latest setback in the story of LU's troubled Public Private Partnership (PPP) renewals programme.

For the past year, passengers on London Underground's Metropolitan Line have been seeing occasional appearances of the S Stock. On some days, there have been as many as 13 trains in service but this has been rare. The new trains were ordered as part of the PPP programme started back in 2002, following the signing of an agreement between Metronet and LU. The agreement provided for rolling stock, track, power supply, civil engineering, station and signalling renewals and included the delivery the fleet of S Stock for the Metropolitan, District, Hammersmith & City and Circle lines.

Although the Metronet organisation went into receivership in 2007, Transport for London (TfL), with help from the Treasury, picked up the financial ball to ensure that most of the work could continue (albeit a bit slower in some areas) and that Bombardier could carry on with their contract to build and deliver the new trains. But the build programme has been fraught with quality and reliability problems and now, it seems, LU's patience has run out.

Delivery Dribble

S Stock delivery began in 2009. It was agreed, quite early on in the process, that basic testing and mileage accumulation for the new stock would begin at Serco's Old Dalby test track in Leicestershire.

So, after doing time at Old Dalby, the first S Stock arrived in London for acceptance in October 2009. This was a "pre-production train", so it was not intended that it would go into service first. This honour fell to the second train, which was run as a special on the Metropolitan line between Wembley Part and Watford some 10 months later on 31st July 2010. It shuttled up and down for a few weeks and then got permission to go as far south as Baker Street. Eventually, the new stock was cleared for the whole of the Met.

Soon after the first train went into service, there were whispers of trouble underneath. Equipment fixing brackets were said to be the problem. There was also trouble with the traction software but that's not uncommon on a new train while it's being set up for a particular route. To begin with, there were just rumours and the first real evidence didn't appear until the delivery programme started in earnest – or should have. The

stock actually arrived in an intermittent dribble. In the five months to the end of 2010, only 5 trains entered service and, in 2011, only 16 more. There have been no new deliveries since mid-November, although there are known to be 11 more trains hanging around at Derby, Old Dalby and Neasden, built but not accepted by LU.

To the savvy observer the irregular deliveries were a sure sign of trouble. What made it more convincing was that trains arrived out of sequence and randomly, not at regular intervals as you would expect. For example, the 28th train to be built went into service a week after the 14th but it was only the 20th train to be delivered.

This is not good. For an order of this size, you'd expect a regular three trains a month at least. This was the rate from the beginning of Bombardier's 2009 Tube Stock deliveries to the Victoria line and it continued throughout the order. If a manufacturer wants an efficient production line and a reliable cash flow, he has to deliver trains at an even rate so he can get paid in an even flow. If he can't, whatever the reason, it's costing him money and lots of it, especially if the trains are built and then not accepted by the customer.

At £7million a train, the halt to deliveries must be costing Bombardier at least £20million a month in unsold stock, plus whatever the fault rectification is costing. If LU (who are even more risk-averse than Network Rail) are refusing to accept trains, they must have a good case against Bombardier and there's undoubtedly a contractual dispute.

Denials

For months, despite all the signs of serious trouble, everyone was denying rumours of contractual problems but there's an old French railway saying, "Never believe a rumour until it's officially denied". When I tackled a Bombardier representative a few months ago with a suggestion that there was evidence of a contractual dispute between them and LU over the S Stock, it was vehemently denied. Asking LU informants the same question met with a similar but not so strong denial. With these responses, the French theory had us believing that there were problems but it wasn't official until Mr Hendy's report appeared.

Going Wrong

Now we know for sure that there are problems. It was no secret that, early on in the programme, one train stalled trying to get up the steep gradient out of Uxbridge because some of the current collector shoes were missing. Apparently, they had dropped off. Then there was the door control. Several stories are circulating of doors not opening when they should and irate passengers getting carried beyond their stop. There were also a couple of long shutdowns in service when one of the two auxiliary converters on the train decided to stop functioning and the other one came out in sympathy, cutting off the air supply and stalling the train.

There have been other problems with the train control management software, the air conditioning system, the air suspension and the traction power software as well as the aforementioned business of the fixing brackets.

There are, it seems, at least two modification programmes in work. For new trains this is not unusual; they never work "out of the box". With all the computer software, they're just too complicated not to have some bugs but, for the S Stock, it's become serious, affecting service quality, and serious enough at that, for one LU person to be overheard suggesting that the fleet would have to be withdrawn until it was got right.

That is unlikely to happen other than on a train by train basis but there are two curious aspects to this whole business. One is that the 2009 Tube Stock didn't suffer as many issues and the other is that you have to wonder if the Thameslink procurement team knew something the rest of us didn't?

Footnote: The day after this article was sent to press, S Stock deliveries resumed.