Ian Walmsley

THE IEP INTERIOR

Front-end mock-up of Class 800. John Whitehouse

Now let's take a look at what we are going to get, with the most important interior since the HST. I speak of the future of InterCity travel, the Inter-city Express Programme Class 800. I had a look around the mock-up, located a short canal-side walk from Warwick Parkway at the DCA design warehouse.

I am delighted to announce a massive step forward, a breaking of convention, a brave confrontation to the pseudo-safety mafia, a triumph of IEP (is this the same Ian Walmsley? Ed). Fainsa is supplying the seats, which did not fill me with confidence as that firm is also supplying Electrostar and Desiro City with hard, thin commuter train seats, but don't panic – its not the same seat. The breakthrough is with the height, which I have gone on about before, as suppliers like to exceed the standard that is already too high.

The rule is that the headrest must support the head of a 95%ile male (a really tall guy), 20 mm above its centre of gravity - although it does allow testing to prove your seat is safe if it is not that tall. All other suppliers have fought shy of the testing and just built taller and taller tombstones, adding weight, cost and inconvenience while removing any view. Fainsa, to its eternal credit, has done the testing and produced a lower backed seat. Standard are 1,225 mm and First 1,255 mm, which is 10 mm and 20 mm lower than the existing East Coast seats. So not tiny, but slightly lower, and it does make a difference. The ones in the mock up still have hard bases but I am assured the production ones will be softer and have padded armrests.

First Class seats had foam options tested against ones with a spring case. Unsurprisingly the spring case proved the best, but did this have a cost penalty? 'Not to DfT' came the slightly miffed reply. I sat in the First Class seat for a while and it is not at all bad, I liked the German ICE–style soft pillows. The First Class colour scheme is reminiscent of Swiss main line stock but apparently it wasn't inspired by that. The Swiss inspiration was in the style of the lettering and labels (no they are not in three languages), and by the way there will be litter bins.

GET UP, STAND UP

Now what about the Liverpool public's main thing they would like to improve on their new trains, the stepping distance? It is time to pick up the pieces from the original IEP specification, undoubtedly the worst effort of modern times. Regular readers will know that Mr Ford and I are of the opinion that the bi-mode was a bad idea for many reasons, what follows is just one train of thought on this subject: -

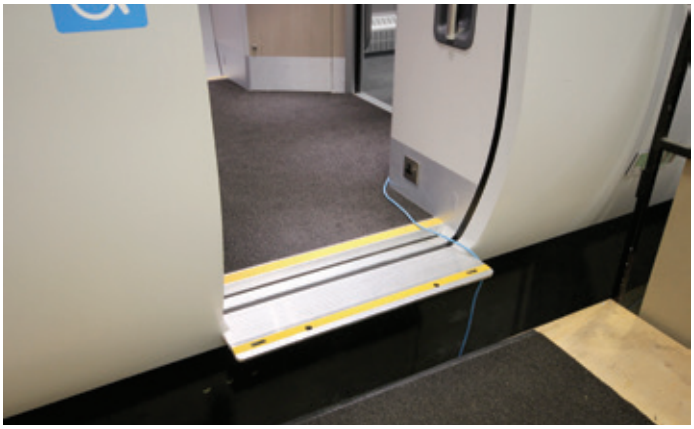
- Large under floor engines mean a higher floor
- A high floor where the pantographs are (both ends) would mean the 95%ile male couldn't stand up.
- So you can't have engines in the end vehicles
- Which means you need even bigger engines where you can have them
- Consequently most of the train has a high floor with a ramp down to the gangway and the 'low' (standard height) floor.
- To allow standard bodyshells even the electric sets have the high floor and of course even they have a 'donkey engine' for de-wirements.

The height difference is 150 mm, basically a step. Apart from at boarding, the difference shows when you sit at a table which is level with the window in the middle of the train, but 150mm below the window at the ends. I am assured the stepping distance is 'no worse' than on a Mk 3 (which I take as meaning 'the same as'), but when you consider the progress made on Turbostars which are near level access it's a bit sad to have two steps to board for the next 27 years of InterCity travel.

THE DOORS

The next specification issue is the single leaf end doors, or at least near the end because the vehicles were specified too long. In the pursuit of a lower cost per seat, it was assumed the longer the vehicle the better, but the ends have to get narrower to stay in gauge as the overthrow on curves gets worse. The doors had to move inboard, so the toilets, bike racks, catering points and anything else you can think of fit in these four non-revenue corners per vehicle. DCA has done a good job using the space, but the vehicles are basically too long. Blame the spec again.

Then there is Hitachi's preference for sliding doors with an inflating pressure seal. The DfT tried to talk Hitachi into using Pendolino doors but this European tat wasn't reliable enough so the sliding doors remain, and with them the pocket to slide into - which restricts vehicle interior width. The solution is to lose the armrest between the end seat pair, which also doesn't have a window (so make a note of that seat number and don't book it). There may be no

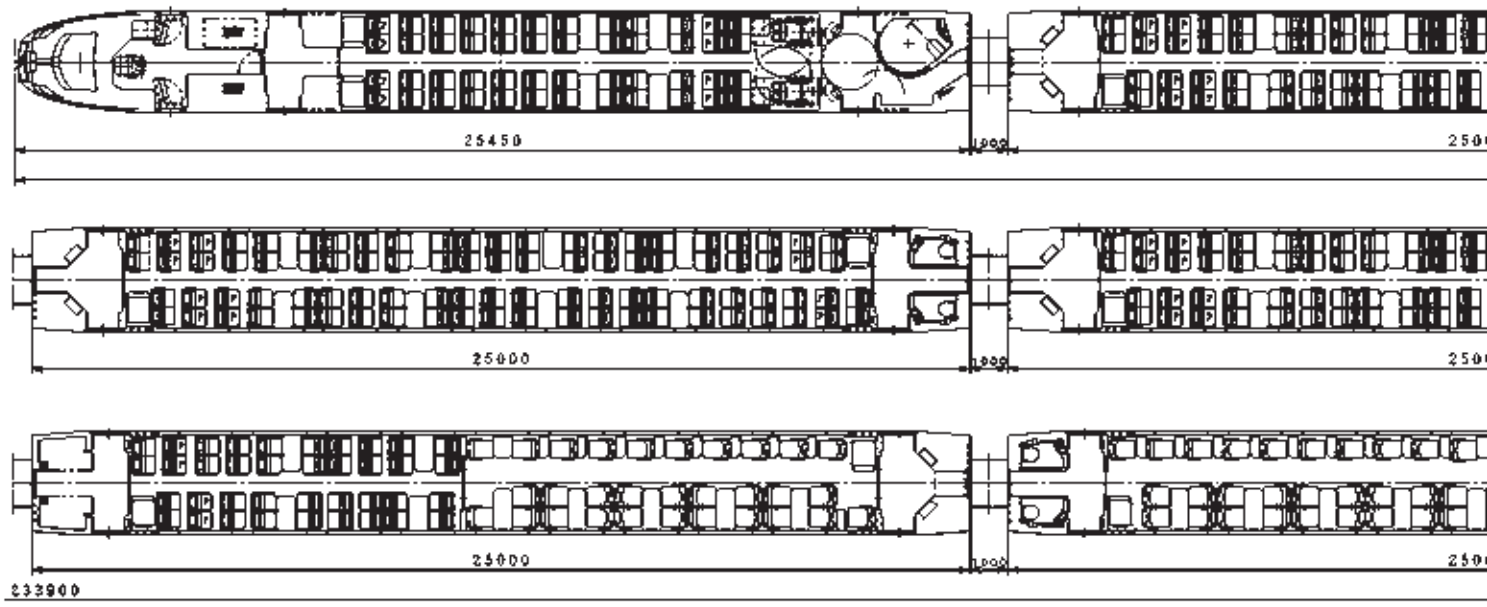


Step into the vehicle. Ian Walmsley

ICE-style pillows in First Class. Ian Walmsley

Bike rack and loo in vehicle end. Ian Walmsley

Ian Walmsley



Layout of nine-car IEP.

armrest but the passengers still have arms, so there will be a nice little choke point next to the interior door.

The train of the future will have more people trying to get through a narrower space to a single door and then taking two steps down to the platform. Dwell times will certainly not be any better than an HST, which if you have seen one at Reading in the peak you will know are pretty bad. It's a good job they built more platforms there, shame about the utilization.

DESIGN FOR LIFE

The design itself is supposed to be current, but also current in 27 years' time, but we always say that. Flexibility is assured by non-structural panels that sit on top of the interior walls, making them easy to move. Panels are so non-structural that you have to have a separate backboard for the wheelchair to lean against. The low roof area where the pantograph sits is quite well disguised with a smoothed rectangular light arrangement; light-emitting diode (LED) strips are the main lights, with down lighters in the vestibules. The air conditioning vents emerge from either side of the lights and these are considerably narrower than on HST but don't appear to point at passengers' necks. The actual heating, ventilation and air conditioning (HVAC) module sits above the end of the passenger area, not above the doors - so that's another reason to stay away from the end seats.

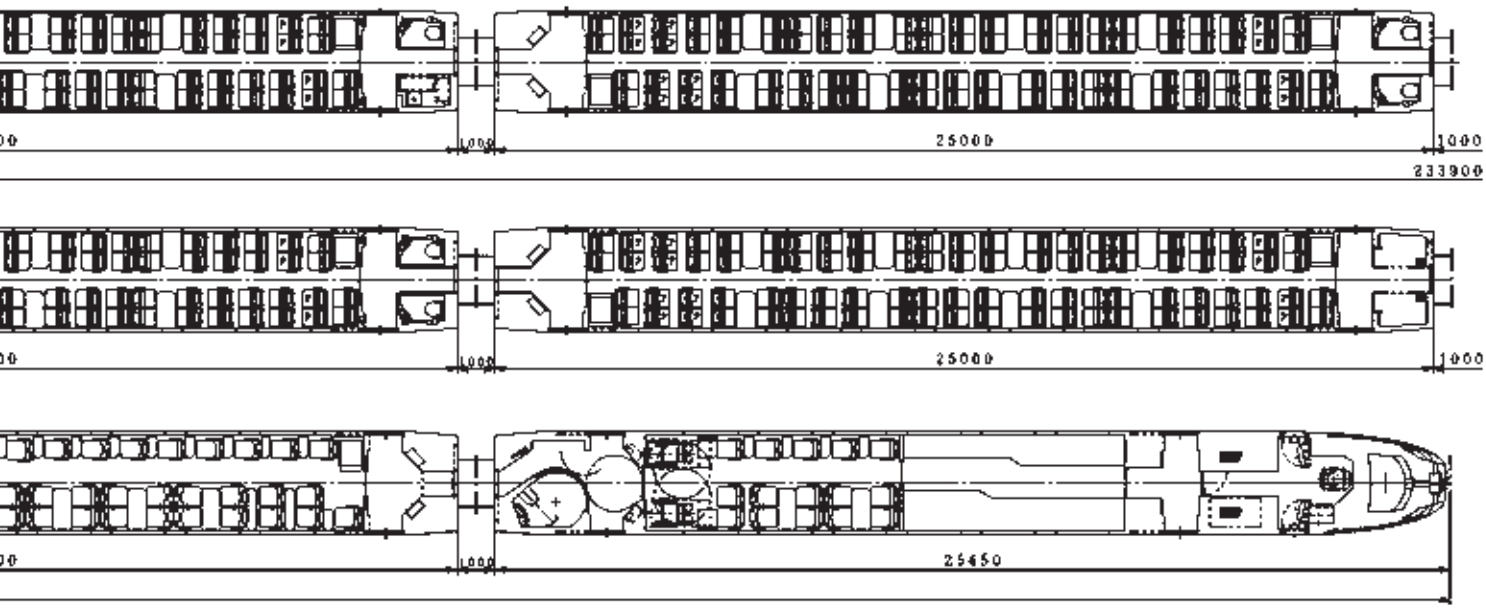
PASSENGER IN THE CAB?

The seats at the very end – the driver and his mate – are also worthy of comment. As usual, the

Try and avoid this seat at the end: no window, no armrest. Ian Walmsley

Fold-down tray. Ian Walmsley

Standard Class saloon with LED lighting and overhead luggage rack.. John Whitehouse



driver's seat is a chunky piece of kit, but it is mounted on a pantograph arrangement which allows it to be pushed back out of the way in an emergency or to allow the driver to drive standing up. This destroys the sight lines but some drivers like to stand up, so that's up to them.

The second man's (or whoever) seat is a Grammer passenger seat (as in a Desiro) stuck on a post, something I've never seen done before. Having said that it is much more comfortable than most second man's seats, so why not?

The cab windscreen slopes way down behind the desk to allow a view of the coupler, but I can see this space becoming a newspaper dump, which won't look very pretty. Maybe some of that one-way view vinyl will be needed here.

The cab is very similar to a Class 395 cab, complete with two CCTV screens allowing the driver to see 20 doors at once. Maybe we can have the doors open the instant the wheels stop turning for a change, I hope we don't lock in 27 years of pointless platform checks.

The pictures tell the story of the interior and I really must underline the fact that DCA has done a good job with what the firm was given, but the IEP project was and always will be hampered by a bad specification. Hitachi also did a good job in tendering it, basically ignoring all the 'desirable' stuff and giving the DfT what it wanted. Imagine if you can though, a real privatised railway with a competitive market for rolling stock. Imagine you had an all-electric low-floor train for 25% cheaper. No wonder they needed a long contract.

Pan down. mr

Driver's desk. John Whitehouse