

Report 15/2018: Pushchair trapped in tram doors and dragged, Nottingham, 15 December 2017

On publication of RAIB's report concerning a pushchair becoming trapped in tram doors and dragged, Simon French, Chief Inspector of Rail Accidents said:

"Since it was set up in 2005, RAIB has investigated 13 events in which door systems have not detected objects trapped in the closed and locked doors of a departing train or tram. In many cases, a limb or item of clothing has been caught in the doors and the people involved have been injured. This incident was different - it was just an empty pushchair that was pulled along outside a tram from one tram stop to the next. However, it is easy to imagine how serious the consequences might have been if there had been a child in the pushchair.

"Our investigation found that the tramway operator did not fully understand the hazards at the platform-tram interface, and the measures needed to control those hazards. The tram, delivered in 2014, had originally been designed with exterior cameras that gave the driver views from front and back platform-side cameras along the whole length of the tram until after moving off. This had been modified by the tram operator in such a way that the rear CCTV camera view was not available to the driver once the doors closed (and this was how the rest of the trams in Nottingham had operated since the tramway opened in 2004). This modification reduced the quality of the view of the platform-tram interface, and could encourage an incomplete check when making the final decision to move off.

"Once again our investigators encountered a driver who thought that door safety systems would always prevent him taking power if any object was trapped in the closed doors; he was unaware that small objects may not be detected by the door safety system. Worryingly, this misconception was shared by other, more senior members of staff at Nottingham Trams. An incident at Bury on the Manchester Metrolink system described in our safety digest D08/2018, demonstrates that the same belief exists on other tram systems.

"This incident reinforces the absolute importance of the final safety check after the doors are detected as closed and before a tram or train continues with its journey. I must stress that this important safety message applies equally to trams and trains.

"We are recommending that Nottingham Trams takes action to improve safety around the platform-tram interface, as well as reviewing its general assessment of the risk from tram operations. This operator, and others in the UK tram industry, need to be aware of the hazards associated with passengers getting on and off trams, and the ways in which safety can be improved in this area."