



Safety recommendation no. 112

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Safety deficit	<p>On Friday 2 October 2015 at 08:28 the empty goods train TRAVYS 8008, made up of control car BDt no. 53 and engine Be 4/4 no. 2, ran away a little after the station at Ste-Croix, on a line with a gradient of up to 44 ‰, and derailed on open track in a left-hand curve between the stations at Trois-Villes and Six-Fontaines. The driver jumped from the train when it was travelling at a speed of 30 to 40 km/h. He suffered contusions. The control car, at the head of the train, landed on the rails after ripping off two contact line masts, and came to a stop below the track about 150 m after derailing. The engine derailed and became embedded in a contact line mast. Train 8008 ran away because, during the two emergency stops, the level of automatic braking acting on the train had diminished, following various incidents of improper handling, so that the brake effort necessary to render the train composition immobile on a gradient of 40 ‰ was no longer sufficient. Vehicles Be 4/4 no. 1 and no. 2, as well as control cars, which were placed into service in the late 1970s, have particular technical characteristics concerning the automatic brake and the door closure warning system. Regarding the automatic brake, action of the fail-safe or the automatic train stop system causes drainage of the brake pipe and simultaneously of the supply line. Regarding monitoring systems, the door closure warning system (monitoring function) is grafted onto the circuits of the fail-safe (safety function). The solutions adopted on these vehicles differ from those normally realised on other vehicles of that era. Should these devices fail, lack of knowledge of these peculiarities on the part of driving staff may create risk situations.</p> <p>Inadequate handling by the engineer while troubleshooting following the two emergency stops after Ste-Croix is due to a lack of technical knowledge or awareness of the situation.</p>
Safety recommendation	The STSB recommends that the FOT, within the framework of training driving staff, plan specific training modules on braking and door closure for as long as these vehicles remain in service or as long as these peculiarities remain.
Addressees	Bundesamt für Verkehr
Stage of the implementation	Implemented. The FOT has checked the effectiveness of the training and the level of training in the context of its supervisory activities.
Investigation report concerning the safety recommendation	Rapport final