



## Safety recommendation no. 18

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<b>Safety deficit</b>	<p>On 13 July 2017 at 04:10, a construction shunting movement, consisting of a locomotive and three loaded service wagons, drove downhill from Samstagern station to a track construction site. A road-rail excavator was waiting on the track at the construction site to distribute the material after unloading. The shunting movement could not be brought to a standstill in time and collided with the road-rail excavator, pushing it downhill for 150 m and causing considerable damage to the infrastructure. The shunting supervisor, a machine operator travelling on a service wagon and the excavator driver jumped off the vehicles while still in motion. One person was injured. The driver remained in the locomotive until the vehicles came to a standstill at the Grünenfeld stop.</p> <p>The collision was due to the fact that the design of the retrofitted parking brake impeded the function of the air brakes of the MFS wagons to such an extent that they could not function.</p> <p>The accident was caused by the fact that the regulations in force concerning the inspection of brakes do not take full account of the possible operational conditions when shunting on closed tracks.</p> <p>Train drivers operate various locomotives. Standard gauge traction units can be braked with the maximum braking force over the entire range of speeds, with the brake acting only on the locomotive. In this case, Am 847 909 9, the locomotive involved in the accident, behaved differently. The driver must be aware of the limited effect of hydrodynamic brakes at low speed. When switching to this traction unit, there is a danger of expecting more effective braking behaviour.</p>
<b>Safety recommendation</b>	<p>Target group: Carlo Vanoli AG</p> <p>A comprehensible notice should be visible on locomotive Am 847 909-9 saying that the brake, which only affects the locomotive, behaves differently to other standard gauge traction vehicles.</p>
<b>Investigation report concerning the safety recommendation</b>	<p><u>Vorbericht</u> <u>Schlussbericht</u></p>