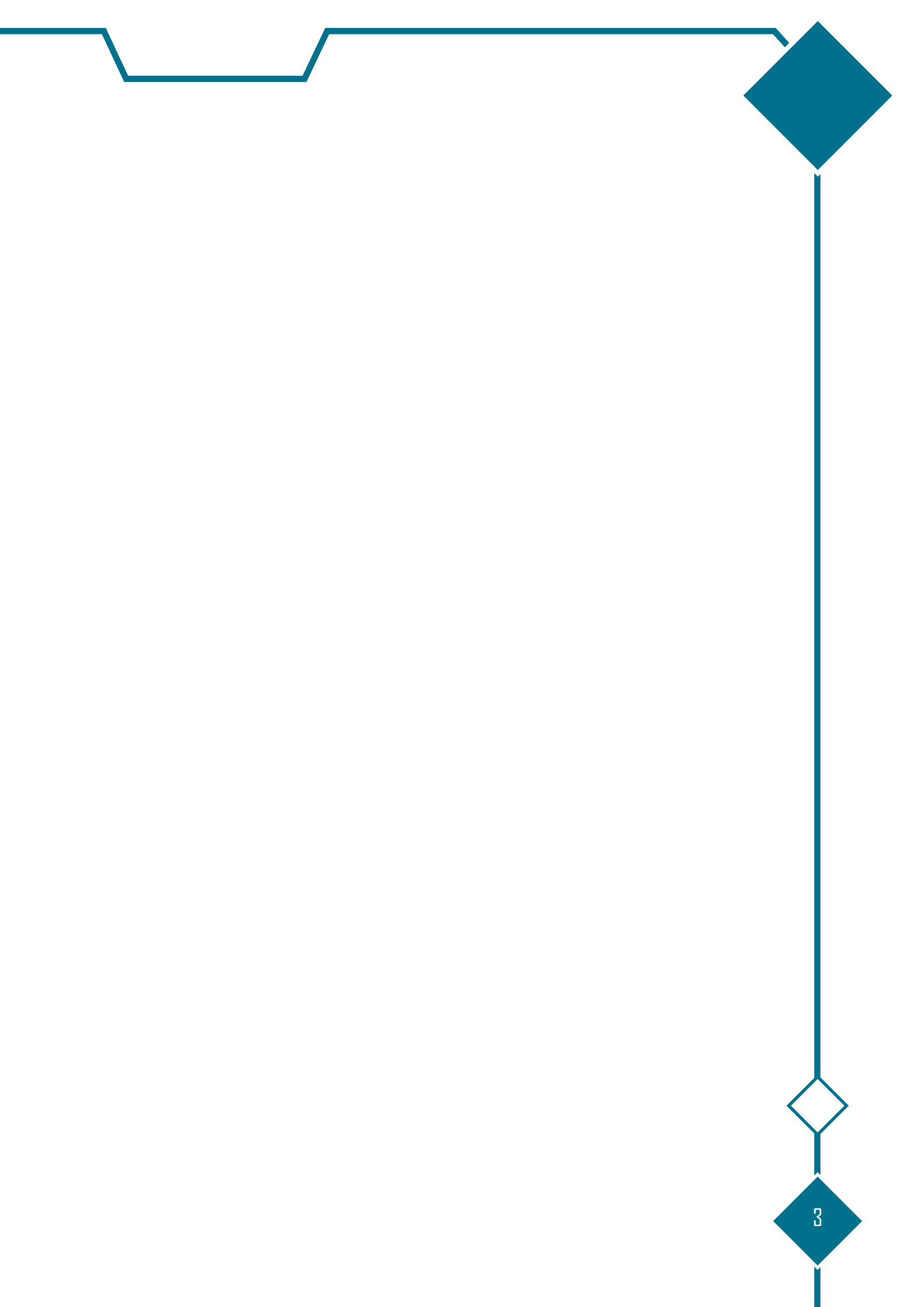


Safety Notice
Side-on collision with a freight train
by a runaway packing machine
Gent-Sint-Pieters
14 April 2019

NOTICE VERSION TABLE

<u>Version number</u>	<u>Subject of revision</u>	<u>Date</u>
1.0	First version	06/09/2019



GENERAL INFORMATION

Nature of the event:

Side-on collision with a freight train by a runaway packing machine of type Unimat 08.

Status of the safety investigation:

Limited investigation - ***Closed.***

Date and time of the event:

14 April 2019, around 0:28.

Place of the event:

Station Gent-Sint-Pieters at point switch AW61BK.

Train:

CrossRail freight train Z65902.

Towed vehicle:

Unimat 7 type 08-475-4S.



FACTS

Works are being carried out on the infrastructure in Landegem. A Unimat 7 packing machine from contractor Strukton is being used for this. This packing machine has a driver's cab and a handbrake at each end. The door of driver's cab 1 at end 1 is locked. At end 1, there is no platform and handbrake 1 is in driver's cab 1. The door of driver's cab 2, end 2, is open. At end 2, there is a platform and on the platform is handbrake 2.

On 13 April 2019 at 22:27, the train Infrabel Z97900 departs from Oudenaarde with the packing machine and is received at platform 2 of Gent-Sint-Pieters at 22:58. The train consists of 1 locomotive and end 1 of the packing machine is coupled to this locomotive.

On 13 April 2019 at 22:26, the train TUC RAIL LZ96021 departs from Schaerbeek and is received at platform 2 at 23:26. The train consists of 1 locomotive and on board is a conductor from TUC RAIL.

Various circumstances in-situ lead to multiple coupling and decoupling manoeuvres of the 2 locomotives with the packing machine. The last manoeuvre takes place when the Infrabel locomotive has already been decoupled and departed. During this manoeuvre, the conductor decouples end 2 of the packing machine from the TUC RAIL locomotive without the handbrake engaged. As the conductor and the TUC RAIL locomotive's driver move away from the packing machine, it begins to move in an unintended manner.

The runaway packing machine reaches point switch AW61BK at the moment freight train Z65902 is coming past and collides with it side-on. There are no casualties, but there is material damage to the infrastructure, 5 wagons and the packing machine. 1 wagon and the packing machine derail and are damaged.



ANALYSIS AND CONCLUSIONS

The packing machine's braking system was visually inspected a few hours after the accident: a pressure reservoir was torn off during the collision such that it was not possible to control the automatic braking system function in-situ. The handbrakes in driver's cab 1 and 2 were working normally, but the packing machine was not immobilised. The rear brake lever was open when visually inspected.



After the inspection, the pressure reservoir was checked and tested at the workshop: the pressure reservoir showed no leaks. The braking system was also checked and tested at the workshop: aside from the consequential damage from the derailing and the collision, the packing machine's braking system was working normally.

There are no images of the accident and the limited journey details, without recording traction orders, provide no usable information.

A first finding is that the packing machine is accompanied by TUC RAIL staff that has not undergone training by Strukton¹ for the use of the packing machine and therefore is not familiar with operating the contractor's packing machine. The presence of a trained operator from the contracting company for the decoupling and immobilisation manoeuvres was foreseen in the contract. By mutual agreement this clause was deviated from².

A second finding is that the handbrake (or other means) to immobilise the packing machine is not used when coupling – decoupling it. This is definitely stipulated in the RGE/ARE³ (Annex 1). The general operating principles of a packing machine's braking system do not deviate from the operating principles of classical freight wagons, however.

The packing machine is equipped with 2 handbrakes: one handbrake is in driver's cab 1, which is locked, and is not accessible. The 2nd handbrake is clearly and visibly stationed at end 2 of the packing machine and is accessible via a platform.

SAFETY LEARNINGS

- The parties involved should see to it that the handbrake is engaged when parking a railway vehicle, as stipulated in the RSEIF/VVESI.
- The parties involved should see to it that railway vehicles are only operated by staff trained for that type of railway vehicle.

¹ This training was foreseen in the contract.

² Remark from Strukton: "During the transfer of the machine on 20/03/2019, it was mutually agreed that no operator from Strukton would be present for the Unimat 7's transport and that this would be solely carried out by Infrabel staff which was trained for this".

³ General Operating Regulations.

ANNEX 1

RGE/ARE Bundle 521 Chapter 1.6.1

Provisional immobilisation

Who does what to provisionally immobilise a vehicle?

When?	Who?	What?
prior to decoupling	driver	• keeps the train stationary; • refills the automatic brake pipe to regime pressure.
after releasing the breaks and relaxing the buffers	the attendant tasked with the decoupling	• decouples; • fully opens the brake lever at the end of the automatic brake pipe for the first vehicle that must remain stationary, and leaves it open; • engages at least one immobilisation brake on each separate part (in the absence of immobilisation brakes: chock).

Investigation Body for Railway Accidents and Incidents
<http://www.mobilit.belgium.be>

