



Havarikommissionen

Accident Investigation Board Denmark

2024-465, Summary, Conclusion and Recommendations



Track worker struck and fatally injured by a local train on 10-9-2024

SEPTEMBER 2026

PREFACE

The Danish Accident Investigation Board for Civil Aviation and Railway (the Accident Investigation Board) is an independent government body whose purpose is to investigate accidents and incidents within the aviation and railway sectors.

The Accident Investigation Board investigates railway accidents and incidents with a view to improving railway safety and preventing accidents.

In accordance with the Danish Railway Act, this report sets out the Accident Investigation Board's investigation and safety assessments of the circumstances of the accident or incident, as well as its causes and consequences.

The investigations are conducted solely for railway safety purposes and are not intended to apportion blame or liability. Accordingly, any use of this report for purposes other than improving railway safety or preventing railway accidents and incidents may lead to erroneous or misleading interpretations.

This document contains an English translation of the chapters Summary, Conclusion and Recommendations from the published Danish investigation report.

The full report in Danish can be found under this link:

<https://havarikommissionen.dk/undersogelsesresultater/soeg-i-jernbane/2026/rapport-2024-465>

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SUMMARY

On 10 September 2024 at 09:54, a track worker was struck and fatally injured by an S-train on the section between Jersie and Solrød Strand Stations. The accident occurred during pruning and brush clearing work along the S-train line, where a team of three was to prune vegetation around technical installations and access routes. The work was planned to take place outside the safety distance from operational tracks and therefore without a track possession or lookout.

The track worker who was fatally injured (Ba2) had completed Banedanmarks (Bdk's) 'Pas på, på banen' course (Infrastructure Manager's basic course for attention while moving about or working in the vicinity of active railway tracks) a few days before the accident, which gave permission to move about Bdk's infrastructure independently and to work under the direction and responsibility of a railway work supervisor. After approximately one and a half days of work with an experienced railway work supervisor, Ba2 was assessed as being capable of carrying out tasks independently. At the time of the accident, Ba2 was working alone and moving between different work sites along the railway.

The investigation showed that Ba2 was close to the track with a brush cutter running at idle and was probably occupied with a mobile phone at the time of the collision. The police's technical examinations documented repeated use of the mobile phone in the minutes leading up to the accident, including a few seconds before the collision. At the same time, evidence found at the accident site and witness statements indicated that Ba2 was wearing hearing protection with a music playback function. The S-train driver observed the track worker approximately 100 metres ahead of the train. The driver initially sounded a short warning with the horn, followed by a longer warning signal. When there was no response, the emergency brake was applied, but the collision could not be avoided.

The Accident Investigation Board's analysis indicated that Ba2 was probably not directing full attention towards train traffic, although this was a fundamental requirement when moving within the safety distance from operational tracks. Ba2 did not respond to the train's warnings, which was probably due to a combination of hearing protection, possible music playback, noise from the brush cutter and attention directed towards the mobile phone. The Accident Investigation Board assessed that Ba2 had either not understood or not complied with the rules requiring work to be stopped, hearing protection to be removed and mobile phone use to be avoided when moving close to operational tracks.

The investigation also identified a number of organisational and training-related factors. In practice, the Railway Safety Instruction (RSI) governing the work required employees themselves to assess whether the work could be carried out without a risk of exceeding the safety distance. The Accident Investigation Board assessed that this was not consistent with the intention of the rules. Weaknesses were also identified in the delivery of the 'Pas på, på banen' course, including the use of instruction in English, errors in the examination material and insufficient assurance that the examination actually documented the participants' understanding of the safety rules.

The Accident Investigation Board assessed that the accident occurred because Ba2 was close to an operational track, was not paying full attention to train traffic and therefore

did not notice the approaching train. At the same time, Ba2's understanding of safety distances and the rules governing movement near operational tracks was assessed as insufficient. Furthermore, the investigation identified shortcomings in instruction and supervision, and found that one and a half days of practical training was not sufficient to ensure that Ba2 could work safely alone near operational railway tracks.

As a result of the accident, Bdk strengthened its control of documentation for safety instructions and implemented changes to the delivery of the 'Pas på, på banen' course. The contractor revised its procedures for training and employees' language skills. On the basis of this investigation, the Accident Investigation Board drew attention to two previously issued recommendations which, at the time of publication of this report, had not been implemented.

5 CONCLUSION

S-train 641131 struck Ba2, who was near the right-hand rail of the track between Jersie and Solrød Strand. Ba2 was wearing hearing protection, which was probably playing music, and was using a mobile phone.

Ba2 was within the safety distance from the operational track, but had not first stopped the brush cutter and removed the hearing protection.

While using the mobile phone, Ba2 probably lost situational awareness while being within the safety distance from the operational track and consequently did not notice the approaching train. Ba2 did not respond to the train's warning signal (horn), probably because the sound was attenuated by the hearing protection and masked by the noise from the brush cutter's engine and/or music playing through the hearing protection.

A few days earlier, Ba2 had completed Bdk's 'Pas på, på banen' course and, at the start of the work, had received instruction and training. However, Ba2 had probably not sufficiently understood the significance of the safety distance from operational tracks and/or the danger associated with being within the safety distance from operational tracks. Similarly, it was probable that Ba2 had not understood the importance of maintaining full attention to trains when moving within the safety distance from operational tracks.

Ba2 had either not understood that the hearing protection had to be removed, the brush cutter stopped and the mobile phone put away before moving within the safety distance, or Ba2 had not recognised that the activity at the time of the accident constituted such movement, with the resulting requirements to remove the hearing protection, stop the brush cutter and refrain from using a mobile phone in order to maintain full attention to trains.

Completion of the 'Pas på, på banen' course, together with one and a half days of practical work with an experienced railway work supervisor, was apparently not a sufficient basis for Ba2 to move about safely and independently near operational railway tracks.

5.1 Additional information

The RSI was prepared and approved with wording, and was applied in a manner, that in practice allowed each employee to work independently, including personally assessing whether the work could be carried out without a risk of exceeding the safety distance from operational tracks and/or the respect distance from the overhead line equipment.

The Accident Investigation Board assessed that it was not the intention of Bdk's rules for preparing RSIs that employees with only a few hours of training in moving about and working on or near tracks, and only a few days' experience of railway work, should be able to carry out tasks independently and without direct supervision as close as one metre from the safety distance from operational railway tracks, while also independently assessing whether there was a risk of exceeding that safety distance.

7 RECOMMENDATIONS

In view of the measures already implemented concerning the delivery of the 'Pas på, på banen' courses, the Accident Investigation Board found no grounds for issuing further recommendations. The Accident Investigation Board also draws attention to the following previously issued recommendations, which to some extent also address matters identified during the investigation of the accident at Solrød Strand on 10 September 2024.

DK-2021 R 2 of 28 April 2021

The Accident Investigation Board recommends that the Danish Transport Authority ensure that Banedanmark ensures, in relation to relevant groups of employees, including contractors, that descriptions of safety-related matters leave no room for interpretation.

DK-2024 R 6 of 5 September 2024

The Accident Investigation Board recommends that the Danish Transport Authority ensure that Banedanmark reviews the rules and guidelines for Railway Safety Plans, including Banedanmark's control of those plans, to ensure that they function as effective barriers against the relevant hazards, including by ensuring that the Railway Safety Plans in use comply with the rules and guidelines.