

General remarks from The Danish Civil Aviation and Railway Authority (NSA-DK):

The accident in 2019 and the following incident in 2021 and the investigations hereof have underlined the need for regulatory action. The NSA-DK have encouraged the work of the JNS in the hope of finding common solutions to maintain a high level of railway safety at the same time as securing interoperability across Europe.

To the opinion of NSA-DK the work of the JNS has not yet resulted in clear conclusions that will sufficiently minimize the risk of semi-trailers on pocket wagons moving outside the gauge during transport.

On this basis NSA-DK states the following on the final JNS-Report:

Cluster I

NSA-DK can fully support the outcome of Cluster Ia and b on secure loading.

NSA-DK has after the publication of the first Action Plan in 2019 used its contents in our audits of operators to see the procedures etc. reflected in the operator's Safety Management System.

The status of the 2019 Action Plan and the current improved version is however unclear and informal, which questions how it is to be applied across Europe. From an NSA-DK point of view the content of the Action Plan regarding the procedures and responsibilities it describes are contributing to the safe handling and transport of semi-trailers on pocket wagons significantly.

Therefore, the NSA-DK can fully support the recommendation that the Action Plan is integrated in an AMoC, and that it is strongly recommended to follow this AMoC.

Cluster II

NSA-DK finds it regrettable that no consensus has been reached on the conclusions of the work on cross wind.

The following is stated in the conclusions from the majority of Cluster II (except Banedanmark):

"This report does not provide any evidence for the necessity for 14 t minimum gross weight for semi-trailers, and it has led to a tremendous shift of transport from rail to road." (pp. 74)

The current Danish minimum weight requirement of 14 tons along with the requirement of 85kN locking force of the hitch and application of the 2019 Action Plan has been imposed to secure safe transport of semi-trailers on pocket wagons across the Great Belt Bridge, since the accident and the following incident demonstrated that semi-trailers on pocket wagons can be moved outside the wagons during transport by wind force if:

- the hitch is not properly maintained, or
- the hitch is designed to have little or no locking force, or
- the semi-trailer is not placed correctly on the pocket wagon.

The NSA-DK finds that the imposed measures are justified from a safety perspective. The conclusions from a majority of Cluster II does not change this, as the conclusions call for further risk analysis of the Great Belt Bridge.

Cluster III

NSA-DK finds it regrettable that no clear conclusions can be made on locking force and that the JNS does not take responsibility for the fact that it has been proven that missing locking force constitutes a safety risk.

The assessment by the Danish National Investigation Board of the January 2021 incident states that the semi-trailer was correctly loaded with the kingpin in the hitch of the pocket wagon, but that the hitch's locking ability was either defective or not present.

It was furthermore assumed that the defective or limited locking, combined with a high wind at the time of the incident, and mechanical stresses resulting from the motion of the pocket wagon in transit to be the primary causes of the empty and hence relatively light semi-trailer being blown out of position in the pocket wagon.

On this basis the Danish National Investigation Board in January this year recommended that the European Union Agency for Railways (ERA) ensure clear requirements for securing the vertical retention of semi-trailers loaded onto pocket wagons.

The NSA-DK consequently encourages ERA to put further effort into determining a minimum threshold value of locking force for hitches.