



Danish Civil Aviation and Railway Authority
Carsten Niebuhrs Gade 43
1577 Copenhagen V
Denmark

1 April 2021

JNS Urgent Measures Great Belt Incident - Suggestion for immediate temporary mitigation measures

Dear Sir or Madam,

On 13th January 2021, an incident happened on the Great Belt Bridge when an empty trailer loaded securely on a pocket wagon moved out of the hitch due to strong crosswinds while crossing the Great Belt Bridge. After the incident, operational restrictions were imposed by the Danish NSA for the Great Belt Bridge and the Danish railway network. We, the undersigning associations representing rail freight companies, suggest immediate temporary measures **of strictly local nature** in accordance with article 8.8 of Directive 2016/798 which allow the rail freight traffic with semi-trailers loaded on pocket wagons to resume commercial service on the Great Belt Bridge.

Pocket wagons in the configuration with the respective hitch types currently in use are authorised according to existing rules, standards and regulations. Therefore, these pocket wagons are interoperable. To prevent the risk that under strong wind conditions a semi-trailer moves out of the hitch and out of the gauge during railway operations on the Great Belt Bridge, we suggest the following five safety measures:

1. All hitch types with a vertical force equal to or higher than 85kN are allowed on the Great Belt Bridge.
2. A sufficient vertical force on the hitch is stated by a third-party assessment. This safety barrier is as well only applicable to the Great Belt Bridge.
3. All terminals which are starting points for semi-trailer transports to, in or through the Danish railway network (regardless of the hitch type or wagon type used for the transports) need to comply with the action plan published by the JNS after the accident of 2019. A contract between the Railway Undertaking and the terminal operator must be present if these checks are done by the terminal operator. The checks must be controlled within the scope of the Railway Undertaking's Safety Management System, especially in regards of procedures to be applied, and qualifications of staff involved. These terminals need to issue a self-declaration and hand this over to the Railway Undertaking. On request, this can then be presented to the NSA as evidence for the compliance with this measure.
4. As a secondary precaution against incorrect loading or insufficient vertical force on the hitch, all trailers loaded onto pocket wagons that will cross the Great Belt bridge must have a minimum gross weight of the trailer of 10 tons corresponding to overturning stability with crosswinds up to 26.2 m/s as derived from the study of the Danish Technical University.
5. The existing wind restrictions that were put into force for freight trains on the Great Belt Bridge after the accident in January 2019 with restrictions of speed to 80 km/h at windspeeds of 15 m/s and closing of traffic at windspeeds of 20 m/s (measured as a 10-minute average) remain in order to stay well below the threshold of the locking force of the hitch.



The above listed strictly local measures are the measures to be taken immediately to resume the transport of semi-trailers on pocket wagons. The undersigning associations are willing to continue to further discuss additional points related to the safe transportation of semi-trailers onto pocket wagons in a normal procedure that should be initiated just after closing the current urgent procedure.

While these measures are in enforced, we call the Danish IM, that an in-depth analysis is carried out and actions are taken by the Infrastructure Manager Banedanmark to ensure full interoperability and safety on the Great Belt Bridge for semi-trailers transported on rail. These permanent measures shall replace the immediate temporary measures as soon as possible. The mentioned requirements shall be performed by a structured approach (also involving the sector, e.g. benchmark of best practices) and be completed by end July 2021.

The undersigning associations kindly ask you to consider this joint proposal that has been agreed at the JNS meeting with Banedanmark, ERA and other NSAs on the 31 March 2021 and call the Danish NSA to lift the restrictions for rail freight traffic with semi-trailers loaded on pocket wagons on the Great Belt Bridge.

Kind regards,

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