



Trafikstyrelsen
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Att.: Christian Vesterager

Banedanmark's reply to suggestions for immediate temporary mitigation measures suggested by CER et al. (dated 1 April 2021)

Banedanmark welcomes the joint recommendation by the five railway associations: CER, ERFA, UIC UIP and UIRR.

If all parties involved do their part, the five recommendations will ensure a safety level, which mirrors the overall high safety level on the Danish railroad.

Banedanmark notes, that recommendation four is a secondary barrier in the form of a weight requirement that translates into cross wind stability up to 26,2 m/s. It is only a secondary barrier, and therefore not needed if the primary barriers work. However, Banedanmark needs to make clear that it may not be sufficient under all conditions if there is incorrect loading or insufficient vertical locking force on the hitch. Banedanmark closes the bridge for freight trains when a 10-minute average reaches 20 m/s. However, as this is an average wind speed, and as it takes time to empty the bridge, it is not unlikely that there can be gusts in excess of 26,2 m/s while freight trains are still on the bridge.

Banedanmark notes that the five railway associations initiate the document with claiming *"On 13th January 2021, an incident happened on the Great Belt Bridge as an empty trailer loaded securely on a pocket wagon moved out of the hitch due to strong crosswinds when crossing the Great Belt Bridge"*. The Danish National Investigative body has not concluded its report of the incident yet, so it seems premature to conclude the cause of the incident. Additionally, following the incident on January 13th, 2021 the Danish National Investigative body issued a safety alert, that the hitch used in the incident had negligible vertical locking force. The hitch used in the accident on the Great Belt Bridge, two years prior on January 2nd, 2019 (for different reasons) also had negligible locking force. Based on what is presently known, this seems like the relevant data to point out.

The five railway associations also stress the local nature of the problem and hence the need for barriers. Studies following the accident in 2019 and the incident in 2021 has made it clear, that if there is no vertical locking force, wind gusts of approximately 20 m/s can move an empty trailer of gauge. This level of wind is common all over Europe.

The five railway associations urges Banedanmark to take actions to ensure full interoperability and safety on the Great Belt Bridge for semi-trailers transported on rail. This is clearly Banedanmark's responsibility as infrastructure manager. However, Banedanmark resents the implication that this is not the case today. *"A line is interoperable from the cross-wind point of view if safety is ensured for a reference train running along that line under the most critical operational*

conditions." On the Great Belt Bridge the table value of this reference train is stability with cross wind of at least 34,8 m/s. Nothing suggests that wind gusts in excess of 34,8 m/s has been present on the Great Belt without Banedanmark closing the bridge well in advance. This has been covered in the working group and is well known to the five railway associations.

The five railway associations urge Banedanmark to take actions that shall replace the immediate temporary measures as soon as possible (the five recommendations). Banedanmark are currently conducting an analysis into the need to update wind restrictions on the Great Belt Bridge. However, it is not likely that Banedanmark as infrastructure manager will take actions that will leave the responsibilities of the Railway Undertakings to secure the fastening of their cargo redundant. Therefore, the immediate measures in recommendation 1, 2, 3 and 4, which are aimed at making sure trailers are securely fastened on pocket wagons will most likely not be affected by Banedanmarks analysis.

Kind regards,

Martin Harrow
Assistant Director
Banedanmark