

POSITION PAPER **version 1.0**

Prescriptions of brake blocks to include in TSI freight wagons

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COMMUNITY OF EUROPEAN RAILWAY AND INFRASTRUCTURE COMPANIES - COMMUNAUTÉ EUROPÉENNE DU RAIL ET DES COMPAGNIES D'INFRASTRUCTURE - GEMEINSCHAFT DER EUROPÄISCHEN BAHNEN UND INFRASTRUKTURGESELLSCHAFTEN



1. REFERENCE DOCUMENTS

Draft WAG TSI revision 1.6 : requirements related to the ‘design assessment’ and the ‘product assessment’ of composite brake blocks.

2. INTRODUCTION

This Position Paper makes public the official CER beliefs and recommendations on and for the final report on TSI Wagon revision CBB 1.6. It recommends changes and amendments to be done, ensuring the deployment of a safe, sustainable, cost-efficient and reliable railway system with all its subsystems included.

CER reminds the need of safe and LCC-effective brake blocks which have a positive impact on noise emissions.

3. REQUIREMENTS

The ERA WP brake launched in January 2012 their working activity to:

- develop a set of requirements related to the design and assessment of the Interoperability Constituent (IC) ‘Brake Block’ as defined in the Wagon TSI. This set of requirements should be applicable and valid for all technologies of wheel tread braking systems.
- close the open point related to the ‘design assessment’ and the ‘product assessment’ of composite brake blocks in the Wagon TSI.

The last draft CBB 1.6 of Wagon TSI does not fulfil these objectives. The previous draft 1.5 of Wagon TSI includes only minor requirements; the last draft 1.6 is now nearly an empty document.

As the mandatory requirements defined in the TSI are not sufficient to validate new products, CER considers that the present CBB draft 1.6 of the TSI does not guaranty a safe application of the Brake Block as required for an Interoperability Constituent.

In addition, the assessment method must be completed in order to ensure the noise efficiency of new brake blocks. The assessment proposed at IC level should guarantee Noise efficiency in a broader context (complete vehicle). Clear interfaces to NOI TSI need to be defined.

4. ASSESSMENT METHOD

In addition of the remark already made on TOP 3 about the assessment method, we note that the method proposed by ERA does not include a confirmed level of friction coefficient. The validation process with a test bench to determine the dynamic and static performances of friction is not acceptable. ERA pointed out that the core TSI requirements should be kept free of these requirements, since it should not restrict to particular operative regimes or maintenance schemes.

The lack of requirements on friction performances will have a negative effect on existing operational conditions as it does not guarantee the interchangeability.

According to the ERA, the other requirements (e.g. shuntage, winter conditions, compatibility with wheel thermal load, etc.), should not be assessed at IC level (see comment [ERA18] in CBB draft 1.6), these aspects have to be assessed on subsystem level. One can imagine the consequence would be, every brake block will be homologated only for one vehicle type and interchangeability will not be realized.

It is a misery by applying the given assessment method it will lead to a continuously repetition of the test scenarios for every relevant vehicle type. It is a burden for the sector and the procedure itself requests a huge amount on management's efforts without beneficial effects for the ECM who is in charge to exchange ICs.

CER considers that the proposed method by ERA does not reflect the sectors needs especially in having adequate test scenarios to guaranty a consistent 'design' assessment for the product. CER expects a negative impact by increasing brake bloc costs due to the huge amount of test scenarios for the applied vehicle types.

The TSI should also lay down a specific case to allow the application of the CBB during specific winter seasons in Nordic and Alpine countries.

5. VALIDATION OF NEW BRAKE BLOCKS

In annex C9, point (I), the draft TSI quotes a list of brake blocks assessed by UIC, but there is nothing mentioned to use the UIC application guidelines "Design, use and maintenance rules for composite brake blocks (K)" as well as "design, use and maintenance guidelines for composite (LL) brake blocks".

The UIC certification process for composite brake blocks (also integrated in prEN16452:2012) specify that UIC guidelines for the design, use and maintenance of wagons with K blocks or LL blocks have to be applied (e.g. specific wheels, "kink" valves, etc.). But the current TSI text does not follow this aspect: a safe use of the products listed in the UIC document is not guaranteed.

6. COSTS AND BENEFITS

The economic impact to close the open point of the Wagon TSI has not yet been investigated by a CBA model.

CER expects that the Agency has to develop a detailed cost impact model on the economic effects of the new TSI WAG. This report has to consider the assessment procedures for the specified requirements, the CBA effects for each applied test method has to be analysed (current UIC method, requirements included in the TSI, other solutions scenario rejected by ERA).

CER insists that for any kind of (new) solution the impact and effect on rail safety, efficiency and LCC need to be carefully analysed and approved first. The rail sector and in particular the rail freight business cannot afford any further loss of **cost efficiency and competitiveness**.

Disclaimer

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