



GB Strategic Direction for the Conventional Rail Freight Wagon TSI

Issue One

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Industry Standards Coordination Committee**

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1 Purpose

- 1.1 This 'GB Strategic Direction for the Conventional Rail Freight Wagon TSI' is issued by Industry Standards Coordination Committee (ISCC) to guide those involved in the revision of the Conventional Rail Freight Wagon TSI (WAG TSI).
- 1.2 It is based on a paper discussed by ISCC at their meeting on 23 April 2010.
- 1.3 This document will be subject to further iteration and refinement if necessary, as the WAG TSI develops.

2 Background

- 2.1 At its meeting on 20 January 2010 the Freight Wagon TSI GB Mirror Group debated the paper on 'Management of input to drafting of TSIs and developing specific cases' which had been discussed by ISCC on 15 January 2010. As a result of this debate, the WAG TSI Mirror Group concluded that they should define the strategic direction they should take.
- 2.2 The Mirror Group decided that aims for their work with the TSI should be:
 - to achieve a standard that allows GB to build economic and cost effective wagons
 - to produce a standard that reflects the essential requirements but is not too prescriptive
 - to ensure there is no reduction in existing overall levels of safety in GB
 - to produce a standard that is fit for purpose within GB requirements and loading gauge
 - to achieve a cost effective transition
 - to be aligned with the RST TSI
- 2.3 Sections 3 to 8 of this document further develop these aims.
- 2.4 A workable TSI for GB that is fit for purpose is essential as DfT is not able to introduce a general exception for domestic vehicles into the Interoperability Regulations.

3 A TSI that allows GB to build economic and cost effective wagons

- 3.1 Cost effectiveness should be judged by the total cost of the wagon, and not by considering the cost of individual constituents.
- 3.2 Specifying the cheapest constituents may not necessarily result in the most cost effective wagon once they are integrated. For example, UIC style buffers would fit onto wagons intended for use in GB, and are cheaper as a component than a GB specific alternative. However, the use of UIC buffers

(which have a longer length between buffing face and headstock) would either reduce the length of wagons able to be used in GB, or reduce their width (due to overthrow on curves) - either of which reduces the carrying capacity of the wagon and hence its economic viability.

4 A TSI that reflects the essential requirements but is not too prescriptive

Categories of wagon

- 4.1 The idea of having separate specifications for different categories of wagons should be pursued.
- 4.2 The idea of a 'passe par tout' wagon is being developed. This has been conceived of as a 'go-anywhere' wagon, which results in unnecessary complications and unnecessary constraints. It should rather be developed as a 'go-anywhere on a UIC railway' wagon. Such a wagon would not be of interest to UK, but it is of use to most of the rest of Europe. The specification for the 'passe par tout' wagon can be very prescriptive, as essentially it is being specified as a standard product with no special features.
- 4.3 The second category of wagons could be as simple as 'anything else' ('special wagons', for want of a better term). These wagons would include special use vehicles (such as car carriers) and all wagons for use in GB. As these wagons are not standard products, their specification should be confined to performance characteristics, avoiding the prescriptive detail that may be appropriate in the specification of a 'passe par tout' wagon.
- 4.4 Essentially, 'special wagons' should be defined by a minimum core set of performance specifications applicable to all wagons. To this specification would be added the prescription required to define a 'passe par tout' wagon.
- 4.5 Further categories of wagons could be specified if there was an economic case for doing so.

Level of detail to be specified in the TSI

- 4.6 A test for how much needs to be specified in the TSI could be to ask 'what do we need to know about a wagon coming from France in order to be content with it running in GB?' In principle, the TSI need specify no more than this for 'special wagons'.

Essential requirements

- 4.7 The concept of 'essential requirements' should be understood as a set of principles. The principles are:
 - Safety: Wagons must be specified so that they are capable of being built, operated, maintained and decommissioned in a way that is safe.

- Reliability and availability: Wagons must be specified ‘in such a manner as to maintain their operation under the intended conditions’ (Directive 2008/57/EC, Annex III, section 1.2) and ‘in a specific degraded situation, be such as to enable the train to continue without adverse consequences for the equipment remaining in service’ (Directive 2008/57/EC, Annex III, section 2.4.2)
- Health: Wagons must be specified so that they are capable of being built, operated, maintained and decommissioned in a way that is not hazardous to human health.
- Environmental protection: Wagons must be specified so that they are capable of being built, operated, maintained and decommissioned in a way that respects the environment.
- Technical compatibility: Wagons must be specified so that in operation they are compatible with infrastructure specified in accordance with the CR INS TSI, CR CCS TSI and the CR ENE TSI, and within the expected climate conditions for their intended area of operation.

5 A TSI that ensures there is no reduction in existing overall levels of safety in GB

- 5.1 This principle is self-evident.

6 A TSI that is fit for purpose within GB requirements and loading gauge

- 6.1 The GB railway is constrained by its small loading gauge, together with other embedded traditions that are inherently difficult and expensive to alter. There should be a working presumption that current GB domestic practice should be preserved (by means of a permanent specific case if necessary, but preferably by preserving choice within the main body of the TSI) unless a conscious decision is made by industry through its stakeholder groups, or by the DfT, to adopt standard European practice – having understood the economic consequences of such a decision.
- 6.2 Appendix A is a preliminary list of the principal known areas where GB and standard European practice differ. The Freight Wagon TSI GB Mirror Group should further develop the list to indicate the known reasons for retaining a GB specific case (or for adopting standard European practice).

7 A TSI that achieves a cost effective transition from current GB domestic practice to standard European practice

- 7.1 Some current GB domestic practice for freight wagons could in theory be changed to be in conformity with standard European practice. However, these changes could not be effected immediately, and thought must be given to transitional arrangements, and the cost of the transition.

- 7.2 An example is the air reservoir pipe coupling head. In GB, the coupling heads have the opposite hand to those used in Europe. There is no technical reason not to adopt the European practice (indeed, there are arguments for doing so). However, a fleet of vehicles with a mixture of GB and European handed coupling heads would be unworkable. Changing the heads simply to harmonise with Europe is unlikely to be economically justified, so if European practice is to be adopted, a transition plan will be required.
- 7.3 Parameters of this type should therefore be identified and the scope for harmonisation assessed, with an outline of the transitional arrangements that would need to be developed, and the economic implications. This can lead to the development of a recommended way forward – in particular whether a temporary Specific Case is required.

8 A TSI that is aligned with the RST TSIs

- 8.1 The wagon TSI must be consistent with the various other rolling stock TSIs. Where a feature is common to all rolling stock, there should be a presumption that the requirements within the various rolling stock TSIs (including the CR WAG TSI) should be the same.

9 ISCC guide for persons involved in the development of TSIs

- 9.1 A '[Guide for persons involved in the development of TSIs](#)' has been developed by the Industry Standards Coordination Committee (ISCC) to provide guidance to individuals from the British railway community who are involved, in some way, in the development of European Technical Specifications for Interoperability (TSIs). This guide should be used by the Freight Wagon TSI GB Mirror Group.
- 9.2 The guide is supported by a [checklist](#) of factors which should be borne in mind when a TSI is being drafted, either for the first time or as a revision. The draft Freight Wagon TSI should be checked against this list.

Appendix A Freight wagons: principal known areas where GB and standard European practice differ

A.1 This is a preliminary list of areas where GB and standard European practice are known to differ. The Freight Wagon TSI GB Mirror Group should further develop the list.

- a) British loading gauge
 - Kinematic gauge
 - Permissible overhang
 - Length of buffers
 - Size / shape of buffer head
 - Longitudinal compressive force
 - Wheel diameter
- b) British environment
 - Temperature range - 20°C to + 35 °C
 - Not required to continuous brake St Gotthard Pass
- c) British operating practice
 - Parking brake on each wagon
 - Markings (not required due to TOPS)
 - Steps and handrails for shunters not required
 - Tail lamp brackets
- d) British engineering practice
 - Structural design assessment
 - Static axle load of 25.4 tonnes
 - British composite brake blocks
 - Dynamic behaviour (simulation)
 - GB range of tyre profiles
 - 127 mm wheel rim thickness
 - Brake performance
 - Air reservoir pipe coupling head