

Proposed amendment to GCU Appendix 9

Record of amendments

Amended by	Date	Paragraph	Amendment
Claude Weis	29/01/2019		Drafted following TTI WG meeting of Oct 2018
Jean-Marc Blondé	20/03/2019		Amended following TTI WG meeting of March 2019
Approved by TTI WG	20/03/2019		As per TTI WG, March 2019
Approved by WU SG	22/05/2019		As per minutes of WU SG meeting
Approved by JC GCU	15/06/2020		

Title:	Overloaded wagons
Proposed amendment made by: RU / Keeper / other body:	CFL Cargo
Proposed amendment concerns:	<input checked="" type="checkbox"/> Appendix 9 <input type="checkbox"/> Appendix 11
Proposer:	Claude Weis
Location, date:	Dudelange, 29/01/2019
Concise description:	Introduction of measures for overloaded wagons

1. Starting point (current situation)

1.1. Introduction

Introduction of measures for overloaded wagons; these measures currently do not exist in Appendix 9.

1.2. Mode of operation

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1.3. Anomaly/Description of problem

Wagon overload is listed under damage code 7.3.5.2, Annex 1, Appendix 9, and the text states that the wagon must be detached. However, the further steps to be taken are listed neither in Annex 8 nor Annex 9.

1.4. Does this concern a recognised code of practice* (e.g. DIN, EN)?

No Yes (state which):

- UIC Loading Guidelines, Volume 2, Point 3.4
 - EN12663-2 Railway applications. Structural requirements of railway vehicle bodies. Freight wagons - Part 2

* Code of practice: a written set of rules that, when correctly applied, can be used to control one or more specific hazards. (Source: Regulation [EC] No. 352/2009, Article 3 section 19).

"Technical provisions laid down in writing or conveyed verbally and pertaining to procedures, equipment and modes of operation which are generally agreed by the populations concerned (specialists, users, consumer and public authorities) to be suitable for achieving the objective prescribed by law, and which have either proven their worth in practice or, it is generally agreed, are likely to within a reasonable period of time." (translation/source: German Ministry of Justice: Handbuch der Rechtsförmlichkeit, recital 255)

2. Target situation (goal)

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3. Amendment proposal

Colour code for changes:

BLACK: actual text, for info and remains unchanged

RED: added or modified text

BLUE and struck out: text will be deleted

Component	Code no.	Irregularities/Criteria/Notes	Action to be taken	Category
Loads and load units (ILU)	7.			
Load in general	7.1			
Distribution of the load (wagon)	7.1.1	Load visibly displaced <ul style="list-style-type: none"> • lashing cords broken • load not positioned properly on • blocks • not centrally positioned 	Detach wagon	5
	7.1.2	Load unevenly distributed (3.3), body not horizontal <ul style="list-style-type: none"> • different buffer heights (3.5) • unequal suspension spring play (3.5) □ pronounced deflection of wagon underframe (3.4) 	Detach wagon, proceed as per Annex 8, point 2 3	5

Component	Code no.	Irregularities/Criteria/Notes	Action to be taken	Category
Load with inadequate supporting area, liable to damage the wagon floor	7.3.5 7.3.5.1	Scotches missing or insufficient (2.2) <ul style="list-style-type: none"> • floor damaged 	K	3
Concentrated load on flat wagon	7.3.5.2	Excessive concentration of load (3.4) <ul style="list-style-type: none"> - scotches in place, dimensions insufficient - scotches in place, unsuitable material used - pronounced deflection of wagon underframe 	Detach wagon, proceed as per point 3,	5

Annex 8

3: HANDLING OF OVERLOADED WAGONS

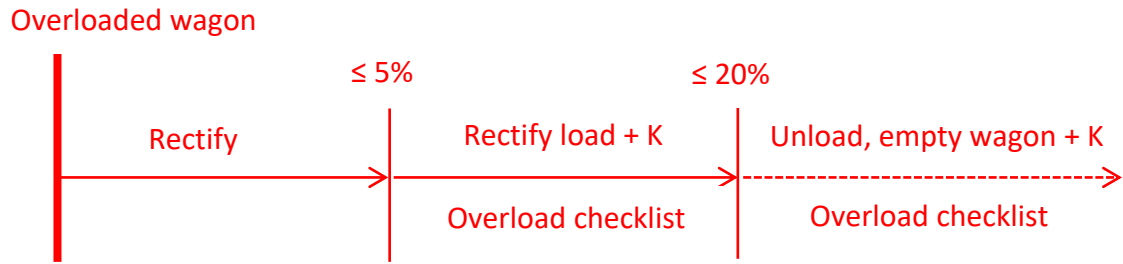
Instructions on the procedure to follow for onward conveyance following identification of overloading and for taking the necessary corrective measures

- Visual assessment of overloaded wagon
- Calculation of load weight by means of scales or from information on the consignment note
- Calculation of overload percentage compared to the inscriptions on the wagon in accordance with point 3.4 of the UIC Loading Guidelines, Volume 1

Overload and procedure:

- If less than or equal to 5%, the overload is simply rectified.
- If greater than 5% and less than or equal to 20%, the overload must be rectified. A visual check shall be performed in accordance with the “overloading” checklist (Annex 9.2). The wagon shall be marked with the K label.
- If wheelset overload exceeds 20%, transhipment is required. Following a technical assessment, the wagon shall be marked with the K label in accordance with the “overloading” checklist (Annex 9.2) and conveyed empty to a workshop located nearby.

Summary:



Annex 9: Checklist

1. INSPECTION OF FITNESS TO RUN FOR AN OVERLOADED WAGON

- **Reference:** Annex 8, point 3: procedure for onward conveyance following identification of overloading and for taking the necessary corrective measures.

Overloaded wagon checklist

Inspection of wagon overloading	1. Underframe	Check visually for damage, deformation and cracks,
	2. Draw/ pushing device	Check visually for damage, deformation and cracks Measure the height of the buffers.
	3. Wagon body	Check visually for damage, deformation and cracks.

4. Reason

Structural requirements of railway vehicle bodies are calculated per EN standard 12663-2 (2010).

According to Point 5.2.3.1 and Table 6 in EN 12663, the maximum operating load is calculated from the vehicle's vertical static loads at a certainty of 1.3. This is the basis for the overload limits of 5% and 20%, according to which the wagon has still not reached the maximum permissible load of 30% calculated with a safety factor as per the standard.

5. Assess potential positive/negative impacts

E.g. on operations, costs, administration, interoperability, safety, competitiveness, etc., using a scale of 1 (very low) to 5 (very high). Justify observations

Impacts:

Operations, Interoperability, Competitiveness, Costs, Administration (value: 3)

Safety (value: 4)

6. Safety appraisal of proposed amendment

Description of actual/target system, and scope of change to be made (see points 1 and 2).

Safety study conducted by:

6.1. Does the change make impact on safety?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Reason: The current rules in place do not provide a procedure for how to handle overloaded wagons. This amendment will ensure that the procedure for handling such wagons is clearly described and will significantly reduce safety risks associated with carriage of such wagons.	
6.2. Is the change significant?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
Reason:	
6.3. Determining and classifying risk	<input type="checkbox"/> not applicable
6.3.1. Effect of change in normal operation:	
6.3.2. Effect of change in the event of disruption / deviation from normal operation:	
6.3.3. Potential misuse of system? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (describe possible misuse):	
6.4. Have safety measures been applied?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
<i>For each type of risk, one of the following risk acceptance criteria is to be selected:</i> <ul style="list-style-type: none"> • <i>“Code of practice” (acknowledged technical rules)</i> • <i>Use of reference system</i> • <i>Explicit risk estimate</i> 	
6.5. Has a risk analysis been submitted to the assessment body?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
Assessment body: Attach the verdict reached by the assessment body	[appendix]