

## WAGON USERS Study Group

### Proposed amendment to GCU Appendix 9

#### Amendment history

Amendment made by	Date	Paragraph	Amendment
Stefan Zebracki	3/3/2017		Drafted following TTI WG meeting of Jan 2017
Approved by TTI WG	31/3/2017		Following TTI WG minutes of March 2017

<b>Title:</b>	Derailment detectors – addition of further detail to Annex 8, point 4
<b>Proposed amendment made by (RU / keeper / other body):</b>	DB Cargo AG
<b>Proposed amendment concerns:</b>	<input checked="" type="checkbox"/> Appendix 9 <span style="margin-left: 200px;"><input type="checkbox"/> Appendix 11</span>
<b>Proposer:</b>	Stefan Zebracki
<b>Location, date:</b>	Mainz, 3.3.2017
<b>Concise description:</b>	Adapt wording of Annex 8, point 4 as regards the use of derailment detectors.

**Starting-point (current situation):**

<b>1.1. Introduction</b>
Appendix 9, Annex 8, point 4 currently states that the derailment detector automatically resets itself only once the main brake pipe has emptied completely, and that this venting is effected by activating the stopcock.
<b>1.2. Mode of operation</b>
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<b>1.3. Anomaly / description of problem:</b>
On modern derailment detectors (e.g. the EDT 101), manual venting of the main brake pipe is not required. The detector returns to a state of readiness for service automatically (see functional description of EDT 101). The wording therefore needs to be adapted as per Point 3 of this proposal.

<b>1.4. Does this concern a recognised code of practice* (e.g. DIN, EN)?</b>
<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (state which): Functional description of derailment detector
<p>* "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 352/2009, Article 3)</p> <p>"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: BMJ Handbuch der Rechtsförmlichkeit – German Ministry of Justice)</p>

**2. Target situation**

<b>2.1. Elimination of anomaly/problem (goal)</b>
The wording needs to be adapted as per Point 3 of this proposal, since manual venting of the main brake pipe is not necessarily required. The detector returns to a state of readiness for service automatically.

### 3. Additional text (relates only to proposed amendments to GCU Appendix 11):

Appendix 9, Annex 8

### 4. With derailment detector

- Tracing a tripped detector:

When a tripped detector is detected, the wagon (all axles) must be examined in accordance with the check-list in Annex 9 in order to determine the cause.

If this proves impossible, reset the display unit of the detector by pressing on the trip indicator (red flap).

- In case of air leakage from the detector:

Isolate the detector using the handle and replace it as soon as possible.

- Yellow lever handle in vertical position: detector tripped
- Yellow lever handle in horizontal position: detector isolated

#### Resetting:

The detector only resets itself automatically once the brake pipe is fully drained; only then can the MBP be refilled. ~~These actions may be carried out using the stopcock.~~

The trip indicator remains visible at all times and must be **reset manually once the pressure in the MBP is zero** ~~reset manually~~.

After inspection of the wagon, the trip indicator may be reset manually.

### 4 Reasoning:

The wording change is necessary in the light of the functional description of the EDT 101, a derailment detector which is in current use and on which the main brake pipe does not need to be emptied manually. The detector returns to a state of readiness for service automatically.

Except from description of EDT 101:

"Design/function - The EDT 101 consists of an emergency brake valve, a mounted spring-mass valve and an indicator device. In the case of derailment, the increase in vertical acceleration is registered by the spring-mass valve. This immediately activates the emergency brake valve, which opens the main brake pipe and triggers an emergency brake application. **The main brake pipe is almost entirely vented. Then the EDT 101 returns to its normal operation position independently and a red pin on the indicator device shows which unit has triggered. The indicator pin can easily be reset manually. Optionally, the detector can be deactivated manually at any time.**"

### 5. Assess potential positive/negative impacts

*Assess the possible positive and negative effects (operations, costs, administration, interoperability, safety, competitiveness, etc.) on a scale of 1 (very low) to 5 (very high). Justify observations*

Impacts:

Operations, Safety (value: 3)

Interoperability, Competitiveness, Costs, Administration (value: 1)

This simply details the practical use as set out in the application description.

The amendment will have a moderately positive impact on operations and safety.

## 6. Safety appraisal of proposed amendment

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

No need for a risk assessment since a code of practice was applied.

Safety appraisal done by:

<b>6.1. Does the change made impact on safety?</b>	<input type="checkbox"/> No <input type="checkbox"/> Yes
Reasoning: x	
<b>6.2. Is the change significant?</b>	<input type="checkbox"/> No <input type="checkbox"/> Yes
Reasoning: see template Attach the "significant change" test template.	
<b>6.3. Determining and classifying risk:</b>	<input type="checkbox"/> N/A
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 type="checkbox"/> No  <input type="checkbox"/> Yes (describe possible misuse):	
<b>6.4. Have safety measures been applied?</b>	<input type="checkbox"/> No <input type="checkbox"/> Yes
For each type of risk, one of the following risk acceptance criteria is to be selected: <ul style="list-style-type: none"> <li>• Code of practice</li> <li>• Use of reference system</li> <li>• Explicit risk estimate</li> </ul>	
<b>6.5. Has a risk analysis been submitted to the assessment body?</b>	<input type="checkbox"/> No <input type="checkbox"/> Yes
Assessment body: Attach the verdict reached by the assessment body:	[Appendix]