WAGON USERS Study Group

Proposed amendment to GCU Appendix 10

Record of amendments

Amended by	Date	Paragraph	Amendment
Geoffroy MAILLE	1/3/2016	5.13	No.8_2017

Title:	5.13 – Screw coupler
Proposed amendment made by: RU / keeper / other body	SNCF
Proposed amendment concerns:	☒ Appendix 10
Proposer:	Geoffroy MAILLE
Location, date:	01/03/2016
Concise description:	Define limit value for play between chain link and screw.

1. Starting-point (current situation):

1.1. Introduction

Appendix 10 defines no limit value for the play between the screw and the chain link on screw couplings. However, numerous RUs have defined internal rules. Since some of these rules differ, this creates problems of understanding during wagon overhaul.

1.2. Mode of operation

The repeated loads to which it is subjected may cause the link to shift from its original position, causing play between itself and the screw. Since this may represent a risk, a maximum value for such play needs to be defined.

1.3. Anomaly / description of problem

The lack of a limit value for play has prompted RUs to introduce their own rules, which differ from one company to another. Practice should be harmonised.

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

☒No ☐ Yes (state which):

* "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)

"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)

2. Target situation

2.1. Elimination of anomaly/problem (goal)

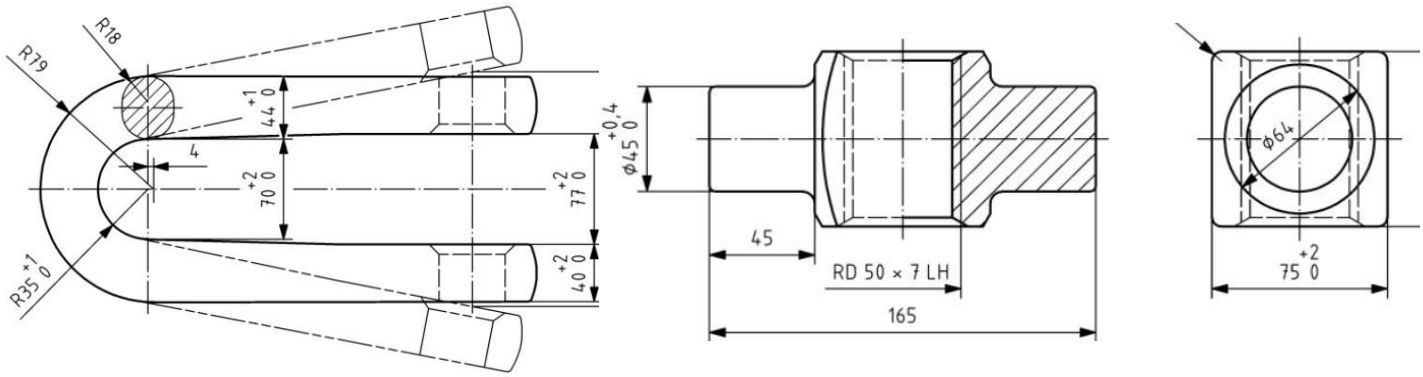
Check play between chain link and screw. Play must be less than 10 mm.

3. Additional text (relates only to proposed amendments to GCU Appendix 10):

We request amendment of Appendix 10 in line with the text below:

5.13 The screw couplers and draw hooks must not be missing. Any clearance between the chain link and the screw must be less than 10 mm.

4. Reason:



The manufacturing diagram indicates that the maximum play possible on a new coupling is:
Maximum dimension of chain link (79) – Minimum dimension of screw (75) = 4 mm

In new condition, therefore, the maximum play is 4 mm.

From experience, when SNCF had its screw couplers repaired (simplified examination), it recommended tightening the chain link such as to obtain a functional play of less than 5 mm if the play measured during preventive maintenance was between 8 and 35 mm.
The 8 mm limit value comes from Level 4 maintenance – logically enough, since a more restrictive dimension is needed than for corrective maintenance, where 10 mm is recommended.

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

Positive/negative impacts:
Operations 3 (positive impact)
Interoperability 1,
Safety 3
Competitiveness 1
Costs: 2

Proposed amendment

6. Safety appraisal of proposed amendment

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

Safety appraisal performed by:

6.1. Does the change made impact on safety?	☒No ☐ Yes
Reasoning: The proposed amendment will improve safety by testing for an irregularity not presently covered by the text.	
6.2. Is the change significant?	☒No ☐ Yes
Reasoning:	
6.3. Determining and classifying risk:	☒ 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: ☐ No ☐ Yes (describe possible misuse):	
6.4. Have safety measures been applied?	☒No ☐ Yes
For each type of risk, one of the following risk acceptance criteria is to be selected: • *Code of practice* • *Use of reference system* • *Explicit risk estimate*	
6.5. Has a risk analysis been submitted to the assessment body?	☒No ☐ Yes
Assessment body: Attach the verdict reached by the assessment body:	[appendix]