

Proposed amendment to Appendix 10 to the GCU

Record of amendments

Amended by	Date	Module	Amendment
Burkhard Lerche	23/12/2022	M02.001	First draft
AG Neandertal	04/01/2022	M02.001	Update
WG MNT decision	18/04/2023	M02.001	Update and approval (see minutes of the Maintenance WG meeting)
WU SG decision	23/05/2023	M02.001	WU SG approval
GCU JC decision	07/06/2023	M02.001	GCU JC approval

Title	M02.001: Leaf-spring suspension removal/installation M02.001 : Démontet/monter ressort à lame M02.001: Blatttraggfeder aus/ein
Proposed amendment made by RU/keeper/other:	Working group Modularisation Appendix 10
Proposed amendment to:	<input checked="" type="checkbox"/> Appendix 10 <input type="checkbox"/> Annex 6 (appendix 10)
Proposer:	DB Cargo AG
Location, date:	Mainz, 23/12/2022
Concise description:	

1. Starting point (current situation):

1.1. Introduction
The task of the Working Group for the modularization of Appendix 10 of the GCU is to describe new modules containing the measures to restore fitness to run and to create a link to the damage codes of appendix 9 as well as to the coding of the works of appendix 10 annex 6
1.2. Mode of operation
The results of the working group are submitted as amendment to the Working Group Appendix 10 and so introduced in the regular process for validation of amendments
1.3. Anomaly/description of problem
Appendix 10 does not currently provide a comprehensive package of works to be carried out in order to restore the fitness to run. By introducing modularisation, this problem is solved. Modularisation supports the further digitalisation. Broken leaf springs need to be exchanged in order to restore the fitness to run.
1.4. Does this concern a recognised code of practice* (e.g. ISO, EN)?
<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (state which): * "a written set of rules that, when correctly applied, can be used to control one or more specific hazards." (Source: Regulation (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". (Source: BMJ Handbuch der Rechtsförmlichkeit – guide published by German Ministry of Justice)

2. Target situation

2.1. Elimination of anomaly/problem (solution sought)
This measure restores the fitness to run after following damage codes Appendix 9: <ul style="list-style-type: none"> • 2.1.1 Suspension leaves displaced by more than 10 mm with respect to buckle shiny marks near buckle • 2.1.2 Main suspension leaf fractured or with visible crack • 2.1.3 Part of a fractured suspension leaf spring missing • 2.1.4.1 Fracture (but without any part missing) of intermediate suspension spring leaf at a distance from the centre of the spring of less than 1/4 of leaf length • 2.1.6 Buckle loose (fracture or crack in buckle, key missing or ineffective) or signs of loosening of leaves <ul style="list-style-type: none"> • 2.2.1.1 Main or intermediate spring leaf visible crack or break • 2.2.1.2 Main or intermediate spring leaf buckle broken, two leaves touching over 50% of their length • 2.2.2.1 Leaf parabolic spring displaced lengthways > 10 mm • 2.2.3 Buckle damaged or loose (buckle fractured, cracked, lug of the lower key cracked, weld seam of upper key fractured or cracked)

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

Colour codes for amendment proposals:

Black: Currently applicable text; provides information and remains unchanged**Red:** New text**Blue:** (may be crossed out): Text to be deleted

Symbols are used as follows:

→ Link to other section of the GCU

☑ Communication between keeper and workshop

📄 Documentation of the work acc. to app. 10 annex 6

Note: if changes of the annex 6 are required, they have to be named below.


EN**M02.001: Leaf-spring suspension removal/installation**

Technical requirements:	Wheelset lowering and lifting equipment
Organisational preparations:	☑ If necessary, request suspension spring from the keeper with → Form H in accordance with Appendix 7
No.	Work tasks, technical target state and additional notes
1.	Prepare suspension spring removal <ul style="list-style-type: none"> Lift the wagon to ease the load on the spring Lifting at the buffer is not permitted
2.	Remove suspension spring: <ul style="list-style-type: none"> Remove suspension spring shafts Remove suspension spring
3.	Install suspension spring <ul style="list-style-type: none"> Fit a securely seated buckle boss/axle-box housing Suspension spring shaft lubricated Pay attention to installation of the suspension bearings Fold down split pin properly (split pin half 30° open) <i>Additional notes: For vehicles with a rigid underframe (XX) the suspension spring are to be exchanged on both sides of the wheelset</i>
5.	Minimum leaf clearance in accordance with→2.5.1
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FR**M02.001 : Démontet/monter ressort à lame**

Conditions techniques :	Vérin en fosse, dispositif de levage
Mesures préparatoires :	☑ Le cas échéant, demander l'entretoise auprès du détenteur avec → modèle H selon l'annexe 7
n°	Contenu de l'intervention, état technique théorique et autres indications
1.	Préparer le démontage du ressort : <ul style="list-style-type: none"> Levage du wagon pour délester le ressort Le levage par les tampons n'est pas autorisé
2.	Démonter le ressort : <ul style="list-style-type: none"> Démonter les axes de ressort de suspension Démonter le ressort
3.	Monter le ressort : <ul style="list-style-type: none"> Tête de la bride/corps de boîte d'essieux en maintien sûr Axe de ressort de suspension lubrifié Attention à la position de montage du coussinet Ecarter les goupilles de manière conforme (angle d'ouverture de 30°) <i>Indications complémentaires : Pour les des véhicules à châssis rigide (xx), toujours remplacer les ressorts des deux côtés de l'essieu.</i>
5.	Respecter le débattement minimal selon→2.5.1
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DE**M02.001: Blatttragfeder aus/ ein**

Technische Voraussetzungen:	Radsatzsenke, Hebevorrichtung
Organisatorische Vorbereitungen:	<input checked="" type="checkbox"/> ggf. Tragfeder beim Halter mit →Muster H nach Anlage 7 abfordern
Nr.	Arbeitsinhalt, technischer Sollzustand und sonstige Hinweise
1.	Tragfederausbau vorbereiten: <ul style="list-style-type: none"> • Anheben des Wagens zur Entlastung der Feder • Das Anheben an den Puffer ist nicht gestattet
2.	Tragfeder ausbauen: <ul style="list-style-type: none"> • Tragfederbolzen ausbauen • Tragfeder ausbauen
3.	Tragfeder einbauen: <ul style="list-style-type: none"> • Sicherer Sitz Federbundzapfen / Radsatzlagergehäuse hergestellt • Tragfederbolzen geschmiert • Einbaulage vom Schakenstein beachten • Splinte ordnungsgemäß umlegen (Splintenhälfte 30° geöffnet) <p><i>Sonstige Hinweise: Bei Fahrzeugen mit verwindungssteifen Untergestellen (XX) sind Tragfedern radsatzweise zu tauschen</i></p>
5.	Mindestfederspiel eingehalten gemäss→2.5.1
	

4. Reason:

5. Assess potential positive/negative impacts
<p><i>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):</i></p> <p><i>Reasoning behind amendment:</i></p> <p>This measure describes the good practice in maintenance and should not have a positive or negative effect on operations, costs, administration, interoperability, competitiveness, but presents an increase on safety.</p>

6. Safety appraisal of proposed amendment

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

Performance of risk analysis is unnecessary where only recognised standards are implemented.

Risk analysis conducted by:

6.1. Does the change have an impact on safety?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
Reason: No change in the process	
6.2. Is the change significant?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
Reason: No change in the process	
6.3. Determining and classifying risk	<input checked="" 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):	
6.4. Have safety measures been applied?	<input checked="" 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"> • Code of practice • Use of reference system • Explicit risk assessment 	
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]