

Proposed amendment to Appendix 10 to the GCU

Record of amendments

Amended by	Date	Module	Amendment
AG Neandertal	05/09/2023	M02.004	First draft
AG Neandertal	21/11/2023	M02.004	Update
WG MNT decision	30-31/01/2024	M02.004	Update
WG MNT decision	09-10/04/2024	M02.004	Update
WU SG decision	14/05/2024	M02.004	Approved by WU SG
GCU JC decision	04/06/2024	M02.004	Approved by GCU JC

Title	M02.004: Helical springs removal/installation M02.004: Démontér/monter les ressorts hélicoïdaux M02.004: Schraubenfedern aus/ein
Proposed amendment made by RU/keeper/other:	AG Neandertal
Proposed amendment to:	<input checked="" type="checkbox"/> Appendix 10 <input type="checkbox"/> Annex 6 (appendix 10)
Proposer:	
Location, date:	05/09/2023
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.
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):
<small>* "a written set of rules that, when correctly applied, can be used to control one or more specific hazards." (Source: Regulation (source: Regulation EC 402/2013, Article 3)</small>
<small>"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)</small>

2. Target situation

2.1. Elimination of anomaly/problem (solution sought)
See below point 3

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.

The damage codes of section 2 of this amendment proposal will be updated in the three languages in table in the introduction.

Damage code Appendix 9	Measures to restore the fitness to run
2.5.1 Main/tare spring cracked or broken 2.5.2.2 Auxiliary/load spring displaced or broken – on loaded wagon (axle box no longer horizontal) 2.5.6 Insufficient spring clearance: Recent signs of contact between axle-box: housing and bogie frame (distance less than 8 mm) in combination with Appendix 9, Annex 9, Checklist 2, point 9.3 (no overloading detected)	M02.004 Helical springs removal/installation M02.004 Helical springs removal/installation M02.004 Helical springs removal/installation
Code d'anomalie Annexe 9	Mesures pour rétablir l'aptitude à la circulation
2.5.1 Ressort de tare fissuré ou cassé 2.5.2.2 Ressort de charge déplacé ou cassé sur wagon chargé (défaut d'horizontalité de la boîte d'essieux 2.5.6 Traces récentes de contact entre le corps de boîte et le châssis de bogie : Débattement insuffisant des ressorts (distance inférieure à 8 mm) ; en combinaison avec Annexe 9, Appendice 9, Checklist 2, point 9.3 (aucune surcharge constatée)	M02.004 Démonter/monter les ressorts hélicoïdaux M02.004 Démonter/monter les ressorts hélicoïdaux M02.004 Démonter/monter les ressorts hélicoïdaux
Schadcode Anlage 9	Maßnahmen zur Wiederherstellung Lauffähigkeit
2.5.1 Haupt-/Tarafeder angebrochen oder gebrochen 2.5.2.2 Zusatz-/Lastfeder verschoben oder gebrochen bei beladenem Wagen (Radsatzlager nicht mehr horizontal) 2.5.6 Frische Spuren des Aufsitzens zwischen Radsatzlagergehäuse und Drehgestellrahmen (Abstand < 8mm); in Kombination mit Anlage 9, Anhang 9, Checkliste 2, Punkt 9.3 (keine Überladung festgestellt)	M02.004 Schraubenfedern aus/ ein M02.004 Schraubenfedern aus/ ein M02.004 Schraubenfedern aus/ ein

EN**M02.004: Helical springs removal/installation**

Technical requirements:	Lifting equipment and/or wheelset lowering
Organisational preparations:	<input checked="" type="checkbox"/> If necessary, request the helical springs from the keeper with → Form H in accordance with Appendix 7
No.	Work task, technical target state and additional notes
1.	Remove wheelset → M01.001
2.	Remove springs: <ul style="list-style-type: none"> • Take the inner and outer helical springs out of the guides
3.	Install springs: <ul style="list-style-type: none"> • Use helical springs • The coil direction between inner and outer spring must be in the opposite direction. • Only springs of the same type may be fitted in a bogie.
4.	Install wheelset → M01.001 <i>Note: when replacing spring, measure the buffer height →M05.002. When dismantling brake components, carry out a functional check of the brake →M03.001</i>
5.	Remove signs of contact, if necessary

FR**M02.004: Démontet/monter les ressorts hélicoïdaux**

Conditions techniques :	Dispositif de levage et/ou vérin en fosse
Mesures préparatoires :	<input checked="" type="checkbox"/> Si nécessaire, demander ressort hélicoïdal auprès du détenteur avec → modèle H selon l'annexe 7
n°	Contenu de l'intervention, état technique théorique et autres indications
1.	Dépose de l'essieu monté → M01.001
2.	Démontet les ressorts : <ul style="list-style-type: none"> • Sortir les ressorts hélicoïdaux intérieurs et extérieurs des guides
3.	Monter les ressorts : <ul style="list-style-type: none"> • Monter les ressorts hélicoïdaux • Les sens d'enroulement du ressort intérieur et extérieur doivent être en opposition • Seuls les ressorts du même type de construction peuvent être montés sur un même bogie
4.	Monter l'essieu monté →M01.001 <i>Indication : si échange des ressorts, mesurer la hauteur des tampons →M05.002. En cas de démontage des éléments de frein, faire un test de fonctionnement du frein →M03.001</i>
5.	Enlever les traces de contact, si nécessaire

DE**M02.004: Schraubenfedern aus/ein**

Technische Voraussetzungen:	Hebevorrichtung bzw. Radsatzsenke
Organisatorische Vorbereitungen:	<input checked="" type="checkbox"/> ggf. Schraubenfedern beim Halter mit → Muster H nach Anlage 7 abfordern
Nr.	Arbeitsinhalt, technischer Sollzustand und sonstige Hinweise
1.	Radsatz ausbauen → M01.001
2.	Federn ausbauen: <ul style="list-style-type: none"> • Innere und äußere Schraubenfeder aus den Führungen nehmen
3.	Federn einbauen: <ul style="list-style-type: none"> • Schraubenfedern einsetzen • Die Wickelrichtung zwischen innerer und äußerer Feder muss gegensinnig sein. • Innerhalb eines Drehgestells dürfen nur Federn gleicher Bauart eingebaut werden.
4.	Radsatz einbauen → M01.001 <i>Hinweis: nach Federntausch ist das Messen des Pufferstandes →M05.002 erforderlich. Bei Demontage von Bremsbauteilen, muss eine Funktionsprobe der Bremse durchgeführt werden →M03.001</i>
5.	Ggf. Aufsetzspuren beseitigen

4. Reason:

Transforming the measures of GCU Appendix 10 into the new modular design

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):
Reasoning behind amendment:

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.

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]