

Proposed amendment to Appendix 10 to the GCU

Record of amendments

| Amended by | Date | Module | Amendment |
|-----------------|---------------|---------|---|
| WG Neandertal | 05/09/2023 | M04.002 | First draft |
| WG MNT decision | 24-25/10/2023 | M04.002 | Update |
| WG Neandertal | 21/11/2023 | M04.002 | Update |
| WG MNT decision | 09-10/04/2024 | M04.002 | Update |
| WU SG decision | 14/05/2024 | M04.002 | Approved by WU SG |
| GCU JC decision | 04/06/2024 | M04.002 | Approved by GCU JC after minor rewordings |

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| Title | M04.002: Restore connecting elements bogie/underframe M04.002: Rétablir les éléments de liaison bogie/châssis M04.002: Verbindungselemente Drehgestell/Untergestell wiederherstellen |
| Proposed amendment made by RU/keeper/other: | WG 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):

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| 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) "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

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| 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**Green:** non-contractual text, only as explanation**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 |
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| 4.6.1.1 Connection between bogie and underframe defective, connecting and fastening elements broken, missing or ineffective | M04.002: Restore connecting elements bogie/underframe |
| 4.6.1.2 Locking device for the bogie pivot kingpin missing or ineffective or pin missing | M04.002: Restore connecting elements bogie/underframe |
| Code d'anomalie Annexe 9 | Mesures pour rétablir l'aptitude à la circulation |
| 4.6.1.1 Liaison bogie / châssis défectueuse, élément de liaison et de fixation cassé, manquant ou inefficace | M04.002 : Rétablir les éléments de liaison bogie/châssis |
| 4.6.1.2 Dispositif de verrouillage de la cheville ouvrière du pivot de bogie absent, inefficace, ou goupille absente | M04.002: Rétablir liaison bogie/châssis défectueuse, élément de liaison |
| Schadcode Anlage 9 | Maßnahmen zur Wiederherstellung Lauffähigkeit |
| 4.6.1.1 Verbindung Drehgestell/ Untergestell schadhaft, Verbindungs- und Befestigungselemente gebrochen, fehlen oder wirkungslos | M04.002: Verbindungselemente Drehgestell/ Untergestell wiederherstellen |
| 4.6.1.2 Bauteil der Drehpfannenbolzensicherung fehlt, wirkungslos oder fehlender Sicherungsstift | M04.002: Verbindungselemente Drehgestell/ Untergestell wiederherstellen |

EN**M04.002 Restore connecting elements bogie/underframe**

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| Technical requirements: | If necessary, lifting equipment |
| Organisational preparations: | <input checked="" type="checkbox"/> If necessary, request the centre casting kingpin and locking device from the keeper with → Form H in accordance with Appendix 7 |
| No. | Work tasks, technical target state and additional notes |
| 1. | Inspect the connection components in terms of integrity, damage and secure positioning <ul style="list-style-type: none"> • Locking device for the centre casting kingpin (locking tappet, safety cotter pin and/or castle nut) • Centre casting kingpin • Bolt connections of the upper centre casting |
| 2. | If needed, lift wagon: <i>(Variant with approval of amendment proposal AP-MNT-2024-02) Note: when lifting the wagon, observe →0.9</i> <i>(Variant without approval of amendment proposal AP-MNT-2024-02) Notes: One-sided lifting of the wagon is only permitted with the appropriate marking (according to Appendix 11, 7.1, 7.2 and 7.3). When lifting wagons, the permissible ramp angles must be observed (marking according to Appendix 11, 2.12). Lifting at the buffer is not permitted. Lifting with mounted bogies is permitted, if the bogie and underframe are locked together in a suitable manner, in order to unburden the load of the fastening of the centre casting kingpin. Hydraulic and pneumatic hoses, as well as electrical lines must not be damaged, kinked or disconnected without keeper instruction (1.36).</i> |
| 3. | Replace missing parts, if necessary and restore bolt connections |
| 4. | When dismantling brake components, carry out a brake function test →M03.001 |

FR**M04.002 Rétablir les éléments de liaison bogie/châssis**

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| Conditions techniques : | Dispositif de levage, si nécessaire |
| Mesures préparatoires : | <input checked="" type="checkbox"/> Si nécessaire, demander la cheville ouvrière du pivot de bogie et le dispositif de verrouillage de celle-ci auprès du détenteur avec →modèle H selon l'annexe 7 |
| n° | Contenu de l'intervention, état technique théorique et autres indications |
| 1. | Vérifier si les éléments de liaison sont complets, intacts et bien serrés : <ul style="list-style-type: none"> • Dispositif de verrouillage de la cheville ouvrière du pivot de bogie (élément de verrouillage, goupille et/ou axe) • Cheville ouvrière de la crapaudine • Assemblages vissés de la partie supérieure de la crapaudine (pivot) |
| 2. | Lever le wagon, si nécessaire : <i>(Variante en cas d'approbation de la proposition de modification AP-MNT-2024-02) Indication : lors du levage du wagon, respecter →0.9</i> <i>(Variante sans approbation de la proposition de modification AP-MNT-2024-02) Indications : Le levage d'un seul côté du wagon n'est autorisé qu'en présence d'une inscription correspondante (conformément à l'Annexe 11, points 7.1, 7.2, 7.3). Lors du levage des wagons, il convient de respecter les angles de cabrage admissibles (inscription selon annexe 11, point 2.12). Le levage par les tampons n'est pas autorisé. Le levage avec des bogies montés est autorisé si le bogie et le châssis sont reliés par des moyens appropriés, de manière que le verrouillage de la cheville ouvrière de la crapaudine soit délesté. Les accouplements de frein hydrauliques et pneumatiques ainsi que les câbles électriques ne doivent être ni endommagés ni pliés ou déconnectés sans instructions du détenteur (1.36).</i> |
| 3. | Remplacer les pièces manquantes, si nécessaire et rétablir les assemblages vissés |
| 4. | En cas de démontage des éléments de frein, faire un test de fonctionnement du frein →M03.001 |

DE**M04.002: Verbindungselemente Drehgestell/ Untergestell wiederherstellen**

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| Technische Voraussetzungen: | ggf. Hebevorrichtung |
| Organisatorische Vorbereitungen: | <input checked="" type="checkbox"/> ggf. Drehpfannenbolzen und Drehpfannenbolzensicherung beim Halter mit → Muster H nach Anlage 7 abfordern |
| Nr. | Arbeitsinhalt, technischer Sollzustand und sonstige Hinweise |
| 1. | Überprüfung der Verbindungselemente auf Vollständigkeit, Beschädigung und festen Sitz: <ul style="list-style-type: none"> • Drehpfannenbolzensicherung (Verschlussstück und Sicherungssplint bzw. Kronenmutter) • Drehpfannenbolzen • Schraubverbindungen der oberen Drehpfanne |
| 2. | Ggf. Wagen anheben: <i>(Variante bei Genehmigung von Änderungsvorschlag AP-MNT-2024-02) Hinweis: beim Anheben des Wagens → 0.9 beachten</i> <i>(Variante ohne Genehmigung von Änderungsvorschlag AP-MNT-2024-02) Hinweise: Das einseitige Anheben des Wagens ist nur bei entsprechender Anschrift (gemäß Anlage 11 Ziff. 7.1, 7.2, 7.3) gestattet. Beim Anheben von Wagen sind die zulässigen Knickwinkel zu beachten (Anschrift gemäß Anlage 11 Ziff. 2.12). Das Anheben an den Puffer ist nicht gestattet. Das Anheben mit angebauten Drehgestellen ist zulässig, wenn Drehgestell und Untergestell mit geeigneten Hilfsmitteln verbunden sind, so dass der Verschluss des Drehpfannenbolzens entlastet ist. Hydraulik- und Pneumatikschläuche, sowie elektrische Leitungen dürfen weder beschädigt noch abgeknickt oder ohne Halteranweisung getrennt (1.36) werden.</i> |
| 3. | Ggf. fehlende Teile ersetzen und Schraubverbindungen wiederherstellen |
| 4. | Bei Demontage von Bremsbauteilen, Funktionsprobe der Bremse durchführen →M03.001 |

4. Reason:

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

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| 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:

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| 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] |