Proposed amendment to Appendix 10 to the GCU

Record of amendments

Amended by	Date	Module	Amendment
Burkhard Lerche	23/12/2022	M05.003	First creation
WG Neandertal	04/01/2023	M05.003	Update
WG Neandertal	04/09/2023	M05.003	Update
WG MNT decision	09-10/04/2024	M05.003	Update
WU SG decision	14/05/2024	M05.003	Approved by WU SG with remarks
Editorial correction	16/05/2024	M05.003	Editorial hints from UIC Legal Service
GCU JC decision	04/06/2024	M05.003	Approved by GCU JC after minor rewordings

Title	M05.003: Buffer removal/assembly M03.003 : Démonter/monter le tampon M05.003: Puffer ab/an
Proposed amendment made by RU/keeper/other:	WG Neandertal
Proposed amendment to:	☒ GCU Appendix 10 ☐ GCU 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.

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

☒No ☐ 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 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)

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
5.2.1 Buffer head missing, broken, distorted such that it is no longer functional, rectangular plate twisted	M05.003: Buffer removal/assembly
5.2.2.1 Fastening on plunger ≥ 1/3 of rivets or bolts loose	M05.003: Buffer removal/assembly
5.2.3.2 Buffer head surfaces more than 2 sharp-edged grooves measuring > 3 mm in depth and > 50 mm in length	M05.003: Buffer removal/assembly
5.2.4.1 Buffer head insert or plastic plate broken, cracked right through, missing	M05.003: Buffer removal/assembly
5.2.4.3 Buffer head insert or plastic plate 2 or more fastenings loose/missing	M05.003: Buffer removal/assembly
5.3.1 Plunger missing, broken	M05.003: Buffer removal/assembly
5.3.2 Plunger cracked at the transition to buffer head	M05.003: Buffer removal/assembly
5.3.3.1 Cracked longitudinally and no longer capable of guiding buffer casing	M05.003: Buffer removal/assembly
5.3.3.2 More than 2 grooves distributed over the circumference, each > 2 mm in depth, sharp-edged, and > 60 mm in length	M05.003: Buffer removal/assembly
5.4.1 Buffer casing missing, broken	M05.003: Buffer removal/assembly
5.4.2 Buffer casing cracked at transition to buffer base	M05.003: Buffer removal/assembly
5.4.3.1 Cracked longitudinally and no longer capable of guiding plunge	M05.003: Buffer removal/assembly
5.4.3.2 More than 2 grooves distributed over the circumference, each > 2 mm in depth, sharp-edged, and > 60 mm in length	M05.003: Buffer removal/assembly
5.4.4.1 Fastening of buffer casing defective, 2 or more bolts loose (play between buffer casing and headstock)	M05.003: Buffer removal/assembly
5.4.4.2 Fastening of buffer casing defective, 1 bolt missing	M05.003: Buffer removal/assembly
5.5.1 Buffer so slack that it can be depressed by hand (one buffer, by more than 15 mm both buffers at the same end)	M05.003: Buffer removal/assembly
5.5.2 Anti crash components triggered	M05.003: Buffer removal/assembly

Code d'anomalie Annexe 9	Mesures pour rétablir l'aptitude à la circulation
5.2.1 Plateau de tampon manquant, cassé, déformé et n'assurant plus sa fonction, plateau rectangulaire tourné	M03.003 : Démonter/monter le tampon
5.2.2.1 1/3 ou plus des rivets ou boulons desserrés	M03.003 : Démonter/monter le tampon
5.2.3.2 Surfaces plateau de tampon avec plus de 2 stries avec arêtes vives > 3 mm de profondeur et longueur > 50 mm	M03.003 : Démonter/monter le tampon
5.2.4.1 Plateau de tampon cassé, fissuré de part en part, manquant	M03.003 : Démonter/monter le tampon
5.2.4.3 Plateau de tampon, fixation : 2 vis ou plus desserrées ou manquantes	M03.003 : Démonter/monter le tampon
5.3.1 Plongeur manquant, cassé	M03.003 : Démonter/monter le tampon
5.3.2 Plongeur fissuré dans la zone de raccordement au plateau	M03.003 : Démonter/monter le tampon
5.3.3.1 Fissure longitudinale n'assurant plus le guidage du boisseau	M03.003 : Démonter/monter le tampon
5.3.3.2 Plus de 2 stries réparties sur la circonférence d'une profondeur > 2 mm, avec arêtes vives et d'une longueur > 60 mm	M03.003 : Démonter/monter le tampon
5.4.1 Boisseau manquant ou cassé	M03.003 : Démonter/monter le tampon
5.4.2 Boisseau fissuré dans la zone de raccordement au pied	M03.003 : Démonter/monter le tampon
5.4.3.1 Fissure longitudinale n'assurant plus le guidage du plongeur	M03.003 : Démonter/monter le tampon
5.4.3.2 Plus de 2 stries réparties sur la circonférence d'une profondeur > 2 mm, avec arêtes vives et d'une longueur > 60 mm	M03.003 : Démonter/monter le tampon
5.4.4.1 Fixation du boisseau défectueux, 2 boulons ou plus desserrés (jeu entre boisseau et traverse de tête)	M03.003 : Démonter/monter le tampon
5.4.4.2 Fixation du boisseau défectueux, 1 boulon manquant	M03.003 : Démonter/monter le tampon
5.5.1 Tampon inefficace au point de permettre une compression à la main (de plus de 15 mm sur un tampon, sur deux tampons d'une même extrémité)	M03.003 : Démonter/monter le tampon
5.5.2 Eléments crash sollicités	M03.003 : Démonter/monter le tampon

Schadcode Anlage 9	Maßnahmen zur Wiederherstellung Lauffähigkeit
5.2.1 Pufferteller fehlt, gebrochen, so deformiert, dass seine Funktion nicht gewährleistet ist, rechteckiger Pufferteller verdreht Aussetzen	M05.003: Puffer ab/an
5.2.2.1 1/3 oder mehr der Niete oder Schrauben lose	M05.003: Puffer ab/an
5.2.3.2 Berührungsfläche der Pufferteller mit mehr als 2 scharfkantigen Verriefungen > 3 mm Tiefe und Länge > 50 mm	M05.003: Puffer ab/an
5.2.4.1 Pufferteller gebrochen, durchgerissen, fehlt	M05.003: Puffer ab/an
5.2.4.3 Pufferteller, Befestigung: 2 oder mehr Schrauben lose / fehlen	M05.003: Puffer ab/an
5.3.1 Pufferstößel fehlt oder ist gebrochen Aussetzen 5	M05.003: Puffer ab/an
5.3.2 Pufferstößel mit Riss im Übergangsbereich zum Teller	M05.003: Puffer ab/an
5.3.3.1 Längsriss, der das Führen der Pufferhülse nicht gewährleistet	M05.003: Puffer ab/an
5.3.3.2 Mehr als 2 Riefen über den Umfang verteilt mit jeweils > 2 mm Tiefe, scharfkantig und Länge > 60 mm	M05.003: Puffer ab/an
5.4.1 Pufferhülse fehlt oder ist gebrochen	M05.003: Puffer ab/an
5.4.2 Riss im Übergangsbereich zum Fuß	M05.003: Puffer ab/an
5.4.3.1 Längsriss, der das Führen des Pufferstößels nicht gewährleistet	M05.003: Puffer ab/an
5.4.3.2 Mehr als 2 Riefen über den Umfang verteilt mit jeweils > 2 mm Tiefe, scharfkantig und Länge > 60 mm	M05.003: Puffer ab/an
5.4.4.1 Befestigung der Pufferhülse nicht sichergestellt, 2 oder mehr Schrauben lose (Spiel zwischen Grundplatte und dem Kopfstück)	M05.003: Puffer ab/an
5.4.4.2 Befestigung der Pufferhülse nicht sichergestellt, 1 Schraube fehlt	M05.003: Puffer ab/an
5.5.1 Puffer lassen sich von Hand eindrücken (ein Puffer mehr als 15 mm, beide Puffer eines Wagenendes)	M05.003: Puffer ab/an
5.5.2 Crashelemente haben angesprochen	M05.003: Puffer ab/an

EN

M05.003 Buffer removal/assembly

Technical requirements:	Torque wrench
Organisational preparations:	✉ If necessary, request buffer from the keeper with → Form H in accordance with Appendix 7

No.	**Work task, technical target state and additional notes**
1.	Remove buffer • Loosen bolt connections *Additional notes:* →5.28, →5.29
2.	Attach buffer: • Use bolts and nuts with a clamping element with the same strength class • Bolt protrusion at least 3 threads • Use correct tightening torque (generally 690 Nm for bolts with the strength class 8.8 and nut with the strength class 8) *Additional notes: ask the keeper regarding buffer guide securing bolts with a different strength class or buffers in combination with ride-up protection, bolt quality and torques* →M00.001*;* →5.28, →5,29
3.	Lubricate buffer, if necessary →M05.001

FR

M05.003 Démonter/monter le tampon

Conditions techniques :	Clé dynamométrique
Mesures préparatoires :	✉ Si nécessaire, demander le tampon au détenteur avec → modèle H selon l'annexe 7

n°	**Contenu de l'intervention, état technique théorique et autres indications**
1.	Démonter le tampon : • Desserrer les assemblages vissés *Indications complémentaires :* →5.28, →5.29
2.	Monter le tampon : • Utiliser vis et écrous auto freinés de la même classe de résistance • Les vis doivent dépasser d'au moins 3 pas de vis • Attention au couple de serrage (en général, 690 Nm pour les vis de la classe de résistance 8.8 et les écrous de la classe 8) *Indications complémentaires* : *pour les vis de tampon d'autres classes de résistance ou pour les tampons anti-chevauchement, demander la classe de résistance des vis et le couple de serrage requis au détenteur* →M00.001 *;* →5.28, →5,29
3.	Lubrifier le tampon, si nécessaire →M05.001

DE

M05.003 Puffer ab/an

Technische Voraussetzungen:	Drehmomentschlüssel
Organisatorische Vorbereitung:	✉ ggf. Puffer beim Halter mit →Muster H nach Anlage 7 abfordern;

Nr.	**Arbeitsinhalt, technischer Sollzustand und sonstige Hinweise**
1.	Puffer abbauen: • Schraubverbindungen lösen *Sonstige Hinweise:* →5.28, →5.29
2.	Puffer anbauen: • Schrauben und Muttern mit Klemmteil mit gleicher Festigkeitsklasse verwenden • Schraubenüberstände mind. 3 Gewindegänge • Anzugsmoment beachten (i.d.R. 690 Nm bei Schrauben der Festigkeitsklasse 8.8 und Muttern der Festigkeitsklasse 8) *Sonstige Hinweise: bei Pufferschrauben anderer Festigkeitsklassen oder bei Puffern in Kombination mit Aufkletterschutz, Schraubengüte und Drehmoment beim Halter erfragen* →M00.001*;* →5.28, →5,29
3.	Ggf. Puffer schmieren →M05.001

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?	☒No ☐ Yes
Reason: No change in the process	
6.2. Is the change significant?	☒No ☐ Yes
Reason: No change in the process	
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 assessment*	
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]