

Amendments and additions to the GCU Proposal sheet

Appendix 12 - Change of liability for damages on wheel treads

Record of amendments

Amended by	Date	Paragraph	Amendment
Andreas Mack, SBB Cargo International AG	21.05.2024	App. 12	New cost allocation rule for damages on wheels

<p>1.- Expose the problem (with examples and, if possible, figures giving a measure of the scope of the problem):</p> <p>Appendix 12 GCU is intended to facilitate the settlement of claims and to take the normal wear and tear of freight wagons into account. It allocates the repair costs to the keeper (wear and tear) and to the railway undertakings (violent damage).</p> <p>The rules for this cost allocation date back to the time of cast iron brake blocks and do no longer fit into today's reality. Since the introducing of composition brake blocks on freight wagons to reduce the noise of freight trains, damages on the wagon's wheel treads have increased dramatically.</p> <p>Damages to the wheel tread can be caused by applied hand brakes when the wheel is pulled in blocked position. This cause is not subject of this proposal. In many other cases, relevant for this proposal, the damage on the wheel tread either happens on singular occasions or during a longer period of growth.</p> <p>RU's are experiencing the interaction of different influences on the damage pattern, such as the quality of used brake valves as well as the nature of the composition brake blocks used. Both influences cannot be handled by the RU and show damages on the wheel tread as if the brake was misused by the RU. Blocked wheels appear due to these influences on the journey and disappear again after proper reaction by the train driver (low pressure overload). As only one brake valve shows this damaging reaction in the train composition during the journey, a misuse of this singular brake valve by the driver and/or the application of a hand brake is impossible.</p> <p>As a result, the RU nowadays have to bear the costs for tread damages and basically have no possibility to prove their correct work, if the set-up of the wagon with its brake valve and composition brake block is unfavourable.</p> <p>Example from Switzerland: A train passes a hot</p>	<p>2.- Show what the GCU is lacking in this respect:</p> <p>Appendix 12 GCU lists the functionality of the brake as the only criteria for the cost allocation of tread damage. If the brake is in good working order, the costs shall be borne by the RU. If the brake is not working properly, the costs are borne by the keeper.</p> <p>The only test procedure for this is the test programme of UIC Leaflet 543-1 which is applied in maintenance and artificial conditions and not in the train composition of reported damage occasion.</p> <p>Classification rules and test procedures date back to the time of grey cast iron brake blocks and do not take into account the development of damage to running surfaces that has occurred since the introduction of plastic brake blocks, in particular LL brake blocks.</p>
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<p>brake measurement system and has no alarm or noticeable deviation on one of the wheel sets. After several kilometres the train passes the next measurement system and suddenly shows a hot brake alarm on two wheels on wagon no. 15 with roundabout 230 degrees Celsius. All other wheelsets are not noticeable warm or hot and the brake is not applied while passing the system. The train driver still gets alerted and performs a low pressure overload of the train's brake system which automatically lowers back to the regular 5 bar pressure. At the following measurement system the train passes again without any noticeable deviations. The wheels on wagon no. 15 also do not show any overheating any more and the train can continue.</p> <p>In another train departure check no visual damages to the wagon's wheels are found and no damage reports are filed. In a following maintenance check the wheels are being changed for damages by the keeper. Even if relevant damages on the wheels are found in train control and a damage report is filed, there is no evidence of misuse of the brake by the RU.</p>	
<p>3.- Explain why the problem can only be solved through the GCU contract:</p> <p>The cost allocation rule as a procedure to facilitate claims settlement only exists in the GCU and is not included in any other set of rules. In addition, many more cases of malfunctioning brake valves or growing damages on wheel treads over time occur than actual damages are done by the RU in operation. Therefore unnecessary discussions and cost allocations can be prevented. Damages done to the wheel by the RU can more easily be proven than the malfunctioning of the brake valve after the wagon gets shunted out and tested in artificial conditions.</p> <p>Other damages related to the operation of wheels are already assigned to the responsibility of the keeper, as damage causes are linked to maintenance procedures.</p>	<p>4.- Outline why the problem should be solved as envisaged in the proposed amendment/addition:</p> <p>The amendment will be to generally consider all tread damage as wear and tear attributed to the keeper. An exception to this is damage caused by force in railway operations, which must be attributed to the user RU. Forced damage in railway operation includes handbrake failures or overbraking with flat spots > 60 mm on all wheelsets of the wagons and maybe even more than one wagon in the train composition.</p> <p>The new principle ends the current situation whereby RUs have to pay for damage that they are highly unlikely to have caused. At the same time the new principle strengthens the responsibility of the ECM for the safe condition of the wagon for operation, which should in any case monitor the wheelset as a safety-critical component of the freight wagon.</p>
<p>5.- Describe how the proposed amendments or additions will help solve the problem:</p> <p>The classification of tread damage as wear and tear appears to be appropriate in the light of current technical developments using composition brake blocks. It is proven that composition brake blocks have other influences on the wheel treads than cast iron brake blocks, simply in not diverting heat from the wheel into other parts and damaging the wheel tread with exceeding heat entry as result. Moreover the quality of brake valves differs a lot and may cause brakes to block on route without influence of the RU.</p>	<p>6.- Assess the potential positive and negative impacts (on operations, costs, administration, interoperability, safety, competitiveness, etc.), using a scale from 1 (very low) to 5 (very high):</p> <p><u>Operations:</u> no impact</p> <p><u>Costs:</u> no impact in amount of cases, as long as low quality brake valves are being used and cause brake mistakes on single wagons in train composition. RU will save money and will be able to produce more cost effective. Keepers will spend more money on damages that cannot be proved as a mistake by the RU, but save money in the future if low quality brake valves are replaced</p> <p><u>Administration:</u> less due to not necessary brake checks</p>

<p>It also reduces the risk of RUs questioning the GCU contract as a whole because it forces them to fulfil unjustified cost claims by keepers they can neither prove wrong nor handle due to missing ECM responsibilities.</p>	<p>according to UIC Leaflet 543-1 and due to reduced amounts of conflicts concerning the fault of damages</p> <p><u>Interoperability</u>: no impact</p> <p><u>Safety</u>: urges ECMs to take responsibility of their wagons and their safe condition in preventive maintenance, corrective maintenance after hints of brake mistakes and usage of higher quality brake valves as the wagons equipment.</p> <p><u>Competitiveness</u>: will be raised for the sector if less damages will occur and less trains needing to stop and wagons to be shunted out.</p>
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7.- Proposed text

Colour coding of amendments:

Black: Current text (remains unchanged, included for reference purposes)

Red: new text

Blue: (may be struck through): text to be deleted

English

Appendix 12 Page 2

Part	Type of damage	Additional information	Keeper	User RU
Tyre / wheel centre / solid wheel / wheel tread	Thermal overloading	Braking equipment operational Singular wagon in train composition and no evidence for accidental damage	X	✘
		Fixed handbrake or overbraking in operation (accidental damage ¹⁾)		X
	Metal inclusions, flats	Braking equipment operational Singular wagon in train composition and no evidence for accidental damage	X	✘
		Fixed handbrake or overbraking in operation (accidental damage ¹⁾)		X

1) Accidental damage in the sense of Appendix 12 is understood as damage not resulting from wear but either from inappropriate handling of the wagon (e.g. shunting accidents, side-on collisions or other sudden events), or which can be attributed to culpable violation of wagon custody obligations by an RU

German

Anlage 12, Seite 2

Bauteil	Schadensbild	Zusätzliche Informationen	Halter	Verw. EVU
Radreifen / Radscheibe / Vollrad / Laufflächen	Thermische Überbeanspruchung	Bremseinrichtung in Ordnung Einzelner Wagen in der Zugzusammenstellung und kein Hinweis auf Gewaltschäden	X	✗
		Feste Handbremse in Betrieb oder fehlerhafte Verwendung des Bremssystems durch den Triebfahrzeugführer (Gewaltschaden ¹⁾)		X
	Materialauftragungen, Flachstellen	Bremseinrichtung in Ordnung Einzelner Wagen in der Zugzusammenstellung und kein Hinweis auf Gewaltschäden	X	✗
		Feste Handbremse in Betrieb oder fehlerhafte Verwendung des Bremssystems durch den Triebfahrzeugführer (Gewaltschaden ¹⁾)		X

- 1) Unter Gewaltschäden im Sinne der Anlage 12 sind insbesondere solche Schadensbilder zu verstehen, die nicht auf Verschleiß beruhen, sondern auf unsachgemäße Behandlung der Wagen (z.B. Rangierunfälle, Flankenfahrten oder andere plötzliche Ereignisse) oder auf eine schuldhafte Verletzung von Obhutspflichten durch ein EVU zurückzuführen sind.

French

Annexe 12, Page 2

Elément de construction	Nature des avaries	Informations complémentaires	Du détenteur	De l'EF util.
Bandage / toile de roue / roue monobloc / table de roulement	Surcharge thermique	Dispositif de freinage en état Wagon isolé dans la composition du train et aucune indication de dommages causés par la violence	X	✗
		Frein à main fixe en service ou utilisation défectueuse du système de freinage par le conducteur (dommage par violence ¹⁾)		X
	Apports de métal, méplats	Dispositif de freinage en état Wagon isolé dans la composition du train et aucune indication de dommages causés par la violence	X	✗
		Frein à main fixe en service ou utilisation défectueuse du système de freinage par le conducteur (dommage par violence ¹⁾)		X

- 1) Par endommagements suite à incident, au sens de l'annexe 12, il faut entendre notamment les dommages qui ne résultent pas de l'usure, mais qui sont à attribuer à des manipulations inappropriées du wagon par l'EF (par exemple : incidents au cours du triage, collisions latérales ou autres événements soudains) ou à une violation fautive des obligations de garde qui sont à diligenter par une EF.