

21-006 – Alignment of GMGN2688 with the WAG NTSN

[This page should be deleted at the publication stage of the project]

Version:	2		
Purpose:	Approval to proceed to consultation		
Authors:	Daniel Hamm – Principal Rolling Stock Engineer		
Sponsor:	Mark Oakley – Professional Head of Rolling Stock		
Lead industry committee:	Rolling Stock Standards Committee (RST SC)	Date:	06 October 2023
Supporting industry committee:	Plant Standards Committee (PLT SC)	Date:	08 November 2023
Supporting industry committee:	Freight Technical Committee (FTC)	Date:	31 August 2023

Decision

Rolling Stock Standards Committee (RST SC) is asked to:

APPROVE that the proposed revision of GMGN2688 issue three is consulted on.

In approving the standard for consultation the SC has:

DECIDED that the proposed revision of GMGN2688 issue three delivers the intentions of the proposal for change.

DECIDED that the proposed revision of GMGN2688 issue three is in a suitable state for consultation.

IDENTIFY any specific organisations or individuals to be included in the consultation.

The supporting SCs are asked to:

SUPPORT that the proposed revision of GMGN2688 issue three is consulted on.

In supporting the standard for consultation the SC has:

SUPPORTED that the proposed revision of GMGN2688 issue three delivers the intentions of the proposal for change.

SUPPORTED that the proposed revision of GMGN2688 issue three is in a suitable state for consultation.

IDENTIFY any specific organisations or individuals to be included in the consultation.

21-006 – Alignment of GMGN2688 with the WAG NTSN

This business case for change has been developed to support standards committees in taking decisions related to changes to standards. It includes an assessment of the predicted impacts arising from the change.

Proposed revised document

Number	Title	Issue
GMGN2688	Application of the WAG NTSN and NOI NTSN to the design of freight wagons	3

Proposed superseded document

Number	Title	Issue
GMGN2688	Guidance on Designing Rail Freight Wagons for use on the GB Mainline Railway	2

Summary

Background and change

GMGN2688 issue two was published in 2013 to provide guidance to users on application of the Rolling Stock – Freight Wagons Technical Specification for Interoperability (WAG TSI) for vehicles being built for operation in Great Britain (GB) and to provide guidance on historical design solutions for GB wagons. Since GMGN2688 issue two was published, the text of the WAG TSI has been amended. Subsequently, following the United Kingdom's (UK) exit from the European Union (EU), the content of the WAG TSI has been transferred to a National Technical Specification Notice (NTSN) for GB. Furthermore, an amendment was made to the Rolling Stock – Noise TSI (NOI TSI) in 2019 which retrospectively applied to existing freight wagons. An NTSN also replaced the NOI TSI in GB that retains the technical content of the TSI.

A five-year review of GMGN2688 issue two completed in January 2020 concluded that, due to the changes in the WAG and NOI TSIs as well as in other documents referenced in GMGN2688, GMGN2688 issue two required a full revision. The review also identified that as, at that time, the end-state following the UK's exit from the EU was still unclear, the revision of GMGN2688 should not take place until the post-EU exit legislative position was certain. Now the WAG NTSN and NOI NTSNs are published, this project has been progressed to review GMGN2688 issue two in line with issue one of the respective NTSNs.

Industry impact due to changes

Impact areas		Scale of impact	Estimated value	
A. Legal compliance and assurance		Medium	£280,000	
B. Health, safety and security		Low	Not proportionate to quantify	
C. Reliability and operational performance		N/A	N/A	
D. Design and maintenance		Low	Not proportionate to quantify	
E. People, process and systems		N/A	N/A	
F. Environment and sustainability		N/A	N/A	
G. Customer experience and industry reputation		Low	Not proportionate to quantify	
Total value of industry opportunity =			£280,000	
The standards change contribution to the total value of industry opportunity				
<input type="checkbox"/> None or low	<input type="checkbox"/> Minor but useful	<input checked="" type="checkbox"/> Moderate	<input type="checkbox"/> Important / essential	<input type="checkbox"/> Urgent / critical

Detail

1. What are the objectives associated with this change?

Objective 1 – Provide guidance to industry stakeholders intending to design, build and gain authorisation for freight wagons in GB according to the WAG and NOI NTSNs.

- 1.1 Reflect changes to the requirements against which freight wagons are assessed for authorisation in the guidance published for industry, and provide guidance on how these requirements can be best interpreted for application to vehicles to be operated on the GB mainline railway.

2. How did the content in the standard need to change to achieve the objective?

Objective 1 – Provide guidance to industry stakeholders intending to design, build and gain authorisation for freight wagons in GB according to the WAG and NOI NTSNs.

- 2.1 The content of GMGN2688 issue two was reviewed in detail for continued applicability in light of the changes to the published WAG and NOI NTSNs and referenced European Standards (ENs), and updated accordingly.
- 2.2 Additionally, the content of the WAG and NOI NTSNs and their reference documents was reviewed to identify any subject areas which require additional guidance to be incorporated in the new GMGN2688 issue three.
- 2.3 The existing content in part two of GMGN2688 issue two on historic practice for the design of wagons for the GB mainline railway was reviewed for continued correctness and applicability and redrafted to be combined with the guidance on the NTSN content currently contained in part three of GMGN2688 issue two.

3. How urgently does the change need to happen to achieve the objectives?

- 3.1 In the WAG and NOI NTSNs there are certain compliance dates quoted concerning brake block approvals and operation on identified 'quiet routes'. Industry requires provision of guidance on these subject areas ahead of the compliance dates given in sufficient time to support preparation for them.
- 3.2 The WAG and NOI TSIs are in the process of being updated. At the time this project (21-006) was initiated, the TSI was expected to be published in late 2022, with a revised WAG NTSN anticipated to be published in the first half of 2023. It was also anticipated that the changes introduced in the revision of the WAG TSI would be limited to specific areas, with the majority of the existing content remaining unchanged and mirrored in the consequential update to the WAG NTSN. Much of the scope of the revision to GMGN2688 was therefore anticipated to be

unaffected by these changes and, as such, it was not proposed to wait for publication of the updated WAG NTSN before starting this project. The schedule for project 21-006 included an allowance to make any necessary changes to the guidance note following the finalisation of the new WAG and NOI NTSNs.

- 3.3 Subsequently, the publication date of the revised TSIs was delayed, and these were only published in September 2023. Consequently publication of the revised NTSNs has also been delayed. A recommendation on revised NTSNs is planned to be made to the Department for Transport in March 2024.

4. What are the positive and negative impacts of implementing the change?

Justification of impact, scale and quantification for the seven impact areas

A. Legal compliance and assurance

- 4.1 Publication of GMGN2688 issue three will support stakeholders in complying effectively with the legislative requirements necessary to gain authorisation of freight wagons for use in GB. Provision of suitable guidance will support users in complying with the legislative requirements in an effective and efficient manner and will potentially prevent unnecessary or abortive work. Records in R2 indicate that between 300 and 500 wagons have been registered per year over the last five years. The value of any benefit to industry will depend on the number of different types of wagons that seek authorisation per year, whilst it is also difficult to estimate the cost of avoided rework per wagon type from achieving compliance with legislative requirements. It is therefore not considered proportionate to quantify the value of benefit in this area.
- 4.2 Provision of document providing comprehensive guidance to stakeholders on the WAG NTSN and elements of the NOI NTSN relevant to freight wagons will eliminate the need for the stakeholder organisations to develop their own guidance, with the risk that such guidance differs between organisations. There is therefore a saving in terms of the effort to develop the guidance by each organisation initially, and a smaller saving in effort to review and potentially amend differing interpretations between organisations (e.g. between vehicles designers / builders and conformity assessment bodies or the competent authority). Taken against this is the effort that will be required for each organisation to review and apply the guidance published in GMGN2688 issue three. This effort is also expected to be smaller than the effort that would be necessary for each organisation to develop the content themselves. For simplicity, it is proposed to only assess the effort for the development of guidance, with the other two described sources of effort assumed to cancel each other out.
- 4.3 It is anticipated that the cost to a stakeholder of producing its own analysis would be approximately equal to the internal costs incurred by RSSB in undertaking the proposed revision of GMGN2688 of £56,000. Whilst the process of consultation and approval by Standards Committees may introduce additional internal costs that a stakeholder organisation would be unlikely to incur, RSSB's ability to undertake the work internally without the need to

procure external resource is likely to represent a saving compared to a stakeholder organisation. If it is assumed that one stakeholder organisation would produce guidance per year, this equates to a total assumed saving of £280,000 over a five-year period.

B. Health, safety and security

- 4.4 The NOI NTSN contains retrospective requirements to limit the operation of wagons on 'quieter routes' from 2024, in order to protect the health of people living or working in the vicinity of those routes. Provision of guidance on these requirements and on means of achieving them will support the industry to effectively comply with the requirements and support the health and well-being of the railway's neighbours.
- 4.5 No benefit for improvements to health and well-being of railway neighbours is claimed as these obligations are already mandated in the NTSN. Benefit will be achieved by supporting the industry in achieving compliance with the requirements. This could be achieved in a number of ways such as:
- i) helping to identify that a wagon fleet is already compliant with the requirements for operation on a 'quieter route' and so avoiding the need for a fleet modification (estimated order of magnitude: £000,000s);
 - ii) helping to identify that a wagon fleet is not compliant with the requirements for operation on a 'quieter route' and so avoiding the penalty costs associated with its illegal operation on such a route (estimated order of magnitude: £0,000,000s); or
 - iii) supporting decisions at the design stage for a new wagon fleet (estimated order of magnitude: £000s).
- 4.6 Due to the range of the financial benefits and the difficulty in estimating their frequency, it is not considered proportionate to quantify the value of benefit in this area. No benefit will be realised concerning ii) above before December 2024, which is the date from which non-compliant wagons are prohibited from operating on 'quieter routes'. Benefit may be realised for i) and iii) before then to support preparation for that deadline.

C. Reliability and operation performance

- 4.7 No impact expected or benefit claimed.

D. Design and maintenance

- 4.8 Publication of GMGN2688 issue three will support stakeholders in designing wagons that are appropriate for use on the GB mainline network. Much of this benefit is considered to come under the 'Legal compliance and assurance' headings. GMGN2688 issue two also provides guidance on good practice for the design of wagons for compatibility with the existing legacy GB subsystems, which is beyond the scope of guidance on the WAG and NOI NTSNs. Review of and, where necessary, updates to, this guidance will similarly support users in designing wagons that are not only compliant with legal requirements but also suitable for operation on the GB mainline railway. As for 'Legal compliance and assurance', it is difficult to estimate the value of this benefit, which will depend on the number of different types of wagons that are

brought into use each year and the cost of avoided rework per wagon type from designing a compatible wagon. It is therefore not considered proportionate to quantify the value of benefit in this area.

E. People, process and systems

- 4.9 No impact expected or benefit claimed beyond those described in section A *Legal compliance and assurance*.

F. Environment and sustainability

- 4.10 Rail freight is identified by the UK government as a key mechanism for supporting overall emissions reduction and supporting 'net zero' goals. Providing effective and up to date guidance to stakeholders involved in the introduction of new or modified freight wagons onto the GB mainline network will support this process by i) helping to eliminate duplicated effort and ii) helping to avoid rework to rectify issues, by providing comprehensive guidance. No environmental or sustainability benefit is claimed for this project as it is considered that such benefits would be realised anyway with this guidance making the process of doing so simpler. The benefits of this are considered under A *Legal compliance and assurance*, D *Design and maintenance*, and, for the environmental benefits of the requirements of the NOI NTSN, under B *Health, safety and security*.

G. Customer experience and industry reputation

- 4.11 Provision of effective guidance on the design and authorisation of new freight wagons will support the freight industry in meeting evolving customer needs and potentially allow them to do so more quickly. Such guidance will also support the modal shift of freight to rail from other modes by helping the rail industry to have appropriate types and quantities of freight wagons available for use, which is likely benefit the industry's public reputation. Estimation of the financial equivalent of such benefits is difficult and it is not considered proportionate to do so.

5. What is the contribution of this standards change in realising the value to industry opportunity?

- 5.1 Publication of GMGN2688 issue three is the key means of realising the opportunity to provide effective guidance to industry.

6. What has been the effort required by RSSB to make the change?

- 6.1 Delivering the change has required a rolling stock technical specialist to lead the project, with some support from other rolling stock technical specialists for specific topics, as well as support from a regulatory and policy specialist, plus project management and administrative resources.
- 6.2 The RSSB team has been supported by a drafting support / review group consisting of industry representatives from the freight sector. This group has met twice so far, to:

- Review the current content of GMGN2688 issue two;
- Review a first draft of GMGN2688 issue three ahead of industry consultation.

A third meeting is expected following consultation to agree a final version of GMGN2688 issue three.

7. Can RSSB deliver against industry's expected timescales?

- 7.1 The commentary in section 3 regarding the timescales for publication of revisions to the WAG TSI and NTSN should be noted. The scheduled publication date of June 2024 would have allowed the updated GN to reflect any changes to the WAG and NOI NTSNs if these were published in summer 2023.
- 7.2 Due to the delays to the publication of the TSIs and consequent delays to the NTSNs, the draft of GMGN2688 issue three presented for consultation is based on the current published WAG and NOI NTSNs. As the timeframe for publication of the revised NTSNs is not clear, it is proposed to proceed with this draft document to consultation, and incorporate changes related to the revision to the WAG and NOI NTSNs only if those documents are published before GMGN2688 issue three. If the revised NTSNs are not published before GMGN2688 issue three is ready for publication, a point-release of GMGN2688 to issue 3.1 can subsequently be published to amend the contents to align with the revised NTSNs.

8. How will the industry implement the change?

- 8.1 Publication of GMGN2688 issue three will not require industry to implement any change. Rather, it will support industry in implementing changes that have already been introduced via the legislative and authorisation regimes.

9. How will RSSB assess whether the change is achieving the objectives?

- 9.1 The effectiveness of the change can be partially judged by indirect measures such as the number of enquiries that are received about its content.
- 9.2 Assessment of the effectiveness of the document is perhaps most effectively achieved by seeking feedback from those organisations that would be expected to make use of it. In this way it could be assessed whether it is achieving the intended benefit of reducing the time and effort involved in understanding and applying NTSN requirements and eliminating differing interpretations and rework during the approval process. This could be achieved by direct engagement with the Approved Body (ApBo) forum.

Business case for change

Appendix A – Disposition Table

Table A1: GMGN2688 issue two to GMGN2688 issue three

From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 1.1.1	G 1.1.1	Revised	References to NTSNs added	1
G 1.1.2	G 1.2.1 G 1.2.5	Revised	Reference to NOI NTSN added Purpose and background now separated in current document template	
G 1.1.3	G 1.2.9	Revised	Expanded due to the relationship between NTSNs and TSIs.	
G 1.1.4	G 1.2.11	Revised	To reflect the current situation.	
G 1.2.1	G 1.2.3 G 1.2.4 G 1.2.5	Revised	To reflect the current situation, provide additional detail and introduce reference to the NOI NTSN.	
G 1.2.2	G 1.4	Revised	To reflect revised document structure and format.	
G 1.3	Copyright statement on page 1	Revised	To current template text.	
G 1.4	G 1.5	Revised	To current template text and with relevant dates.	

Business case for change

From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 1.5	G 1.2.12 – G 1.2.19	Revised	To reference the structure of the WAG NTSN containing articles and an annex, add the titles of the chapters in the annex, and refer to the appendices in the annex.	
G 1.6	G 1.2.11	Revised	Simplified for clarity and to reflect the current situation. Where appropriate information on newer versions of specific referenced standards has also been added to the relevant sections within GMGN2688 issue three.	
G 2.1.1	G1.2.3 G1.4.1	Redrafted	Introduction generally redrafted.	1
G 2.1.2	G 2.2.1	Redrafted	Introduced where reference is made to WAG NTSN Appendix C.	1
G 2.1.3	G1.2.6	Revised	To reflect that on-track machines and plant are out of scope of the WAG NTSN.	1
G 2.2.1	G 2.1.2	Redrafted	To reflect current situation and document structure.	1
G 2.3.1	G 2.3.5	Redrafted	To remove hidden requirement in word 'should'.	1
G 2.3.2	G 2.3.6	Redrafted	To remove hidden requirement in reference to 'acceptance requirements'.	1
G 2.3.3	G 2.3.3 – G 2.3.4	Revised	To reflect development of the ENs since issue 2.	1
G 2.3.4	G 2.3.7	Redrafted	For clarity.	1
G 2.3.5	G 2.3.8	Revised	Additional detail on categorisation added.	1
G 2.3.6	G 2.3.9	Revised	Reference changed to an EN rather than a UIC document.	1

Business case for change

From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 2.3.7	G 2.3.1	Revised	To reflect updates to standards references.	1
G 2.3.8	G 2.3.10	Revised	To reflect updates to standards references. Height limits are specified in RIS-2780-RST so not repeated here.	1
G 2.4.1	N/A	Withdrawn	There is no longer an NTR for coupling of rail vehicles.	1
G 2.4.2	G 2.4.2	Revised	Additional guidance added.	1
G 2.5.1.1	G 2.5.2 G 2.5.3	Revised	Additional guidance added. Separated into two paragraphs for clarity.	1
G 2.5.1.2	G 2.5.4	Revised	To reflect changes to standards references and content.	1
G 2.5.1.3	N/A	Withdrawn	Content is now in RIS-2780-RST.	1
G 2.5.1.4	N/A	Withdrawn	Content is now in RIS-2780-RST.	1
G 2.5.1.5	N/A	Withdrawn	Content is now in RIS-2780-RST.	1
G 2.5.1.6	N/A	Withdrawn	Content is now in RIS-2780-RST.	1
G 2.5.1.7	N/A	Withdrawn	Content is now in RIS-2780-RST.	1
G 2.5.1.8	G 2.5.5	Redrafted	To remove hidden requirement in word 'should'.	1
G 2.5.1.9	G 2.5.6	No change	N/A	1
G 2.5.1.10	G 2.5.7	Redrafted	To remove hidden requirement in word 'should'.	1

Business case for change

From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 2.5.2.1	NA	Withdrawn	Content is now in BS EN 12663-2:2010.	1
G 2.5.2.2	G 2.6.4	Redrafted	To remove hidden requirement in word 'should'.	1
G 2.5.2.3	G 2.6.3	Revised	To reflect that load cases are now in BS EN 12663-2:2010.	1
G 2.5.3.1	G 2.6.5	Redrafted	Content relevant to the air / brake system moved to the section of the document providing guidance on brake systems.	1
G 2.5.4.1	G 2.5.8	Revised	Removed reference to French and German national standards.	1
G 2.5.4.2	G 2.5.8	Revised	Reference to requirements in BS EN 12663-2:2010 added.	1
G 2.5.5.1	G 2.5.11	Revised	UIC references updated.	1
N/A	G 2.5.12	New	New guidance referring to relevant requirements in GERT8073.	1
G 2.5.6.1	G 2.5.10	Redrafted	To remove hidden requirement in word 'should' and include reference to relevant EN.	1
G 2.5.6.2	G 2.5.10	Redrafted	To remove hidden requirement in word 'should'.	1
G 2.5.7.1	G 2.5.10	Revised	To refer more broadly to requirements of BS EN 12663-2:2010.	1
G 2.5.8.1	N/A	Withdrawn	Document restructured so separate sections on each type of load restraint are not required.	1
G 2.5.9.1	G 2.5.15	Part withdrawn Part redrafted	Operational issues out of scope of this guidance note on wagon design. To remove hidden requirement in word 'should'.	1

Business case for change

From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 2.5.9.2	G 2.5.14	Redrafted	To remove hidden requirement in word 'should'.	1
G 2.5.9.3	G 2.5.13	Redrafted	To remove hidden requirement in word 'should'.	1
Figure G 1	N/A	Withdrawn	Duplicate of diagram in referenced UIC document.	1
G 2.5.10	N/A	Withdrawn	Referenced document is not available.	1
G 2.6.1	G 2.7.2 G 2.7.3 G 2.7.4	Revised	References updated, distinction made between upper and lower sector gauges.	1
G 2.6.2	N/A	Withdrawn	The referenced document is no longer maintained.	1
G 2.6.3	G 2.7.5	Redrafted	To remove hidden requirements in word 'should'.	1
G 2.6.4	G 2.7.6	Redrafted	To remove hidden requirements in word 'should'.	1
G 2.7.1	G 2.8.2	Revised	To add reference to RIS-8706-INS.	1
G 2.7.2	N/A	Withdrawn	Restructuring of the document makes the clause unnecessary.	1
G 2.8.1	N/A	Withdrawn	Subject is already covered in Appendix A.	1
G 2.8.2	G 2.9.1 – G 2.9.5	Revised	To reflect the latest published standards.	1
G 2.8.3	G 2.27.1 – G2.27.3	Revised	To reflect the latest published standards.	1
G 2.8.4	G 2.27.4	Redrafted	For clarity.	1

Business case for change

From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 2.9	G 2.11	Revised	To reflect changes as a result of the publication of BS EN 14363:2016, the revision of GMRT2141 and the publication of amendment AM003 to GMGN2688 issue two.	1
G 2.10.1	G 2.12.12	Revised	Added explanation of role of Appendix A.	1
G 2.10.2	G 2.12.10	Redrafted	Simplified.	1
G 2.10.3	G 2.12.11	Redrafted	To remove hidden requirements in word 'should'.	1
G 2.10.4	N/A	Withdrawn	Not required following redrafting due to the publication of BS EN 14363:2016.	1
G 2.10.5	G 2.12.4	Revised	To align with amendment AM003 to GMGN2688 issue two.	1
G 2.10.6	G 2.12.7	Revised	To align with amendment AM003 to GMGN2688 issue two.	1
G 2.10.7	G 2.12.9	Redrafted	To remove hidden requirements in word 'should'.	1
G 2.11.1	N/A	Withdrawn	No longer required due to restructuring of the document.	1
G 2.12.1	G 2.14.4	Redrafted	Link to section on vehicle dynamic behaviour added.	1
G 2.12.2	G 2.14.3	Revised	To include P12 profile.	1
G 2.12.3	G 2.14.5	Redrafted	To remove hidden requirement in word 'should'.	1
N/A	G 2.14.5	New	To reflect new content in the NTSN.	1
G 2.13.1	G 2.15.2	No change	N/A	1

Business case for change

From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 2.14.1	N/A	Withdrawn	Content is now in RIS-2714-RST.	1
G 2.14.2	N/A	Withdrawn	Content is now in RIS-2714-RST.	1
G 2.15.1	N/A	Withdrawn	Definitions are now provided in the WAG NTSN.	1
G 2.15.2	G 2.18.2 G 2.18.3 G 2.18.4	Revised	To remove hidden requirement in word 'should', reflect publication of BS EN 15807:2021 and include additional guidance on the main reservoir sealing star valve.	1
G 2.15.3	N/A	Withdrawn	Information on brake timings is given in GMRT2045.	1
G 2.15.4	N/A	Withdrawn	The content is no longer correct as the status of table G 4 has changed in the WAG NTSN.	1
G 2.15.5	G 2.25.14	Redrafted	To remove parentheses.	1
Table G 4	Figure 2	Revised	To incorporate amendment AM002 to GMGN2688 issue two.	1
G 2.16.1	G 2.21.3	Revised	GMRT2043 has been withdrawn.	1
G 2.16.2	G 2.21.2	Revised	GMRT2040 has been withdrawn.	1
G 2.16.3	G 2.20.1 G 2.20.4	Revised	GMRT2043 has been withdrawn. BS EN 14531 sets out requirements for brake system design rather than brake performance.	1
G 2.17.1	N/A	Withdrawn	GMRT2043 has been withdrawn.	1

Business case for change

From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 2.17.2	G 2.22.4	Redrafted	To remove hidden requirement in word 'should'.	1
G 2.17.3	G 2.22.5	Redrafted	To remove hidden requirement associated with granting permission.	1
G 2.17.4	N/A	Withdrawn	Duplication of text in G 2.22.2. No relevant content in the OPE NTSN.	1
G 2.18	G 2.23.1 G 2.23.2	Redrafted	For clarity, to separate commentary on the NTSN reference case from guidance on the historic GB reference.	1
G 2.19	G 2.24.2	Revised	To reflect the revision to BS EN 15595.	1
G 2.20	G 2.26	Revised	Redrafted and additional guidance added.	1
G 2.21	N/A	Withdrawn	The WAG NTSN clarifies that goods carried on wagons are not part of the requirements, so the guidance is redundant.	1
G 2.22	N/A	Withdrawn	The text duplicates the document contents.	1
G 2.23.1	N/A	Withdrawn	The referenced documents are no longer valid or available.	1
G 2.23.2	N/A	Withdrawn	Subject matter is off the railway and so beyond the scope of the guidance document.	1
G 2.23.3	N/A	Withdrawn	The referenced standards have been superseded, and it is beyond the scope of the guidance to give detailed guidance on the design of individual sub-components.	1
G 2.23.4	N/A	Withdrawn	Contains hidden requirements not appropriate for a guidance document.	1

Business case for change

From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 3.1	N/A	Withdrawn	Duplicates information in sections G 1.2 and G 1.4.	1
G 3.2.1	G 2.1.1	Revised	Additional guidance drafted.	1
G 3.2.2	G 2.2.1	Revised	Guidance expanded.	1
G 3.2.3	N/A	Withdrawn	No longer appropriate due to restructuring of the document.	1
G 3.2.4	G 2.4.1	Redrafted	To remove hidden requirement in word 'should'.	1
G 3.2.5	G 2.5.2	Redrafted	To remove hidden requirement in word 'should'.	1
G 3.2.6	N/A	Withdrawn	No longer appropriate due to restructuring of the document.	1
G 3.2.7	G 2.7.1	Revised	To remove hidden requirement in word 'should' and give further guidance on content of BS EN 15273-2:2013+A1:2016.	1
G 3.2.8	N/A	Withdrawn	No longer appropriate due to restructuring of the document.	1
G 3.2.9	G 2.8.1	Revised	To refer to permission in INF NTSN.	1
G 3.2.10	N/A	Withdrawn	No longer appropriate due to restructuring of the document.	1
G 3.2.11	N/A	Withdrawn	No longer appropriate due to restructuring of the document.	1
G 3.2.12	N/A	Withdrawn	No longer appropriate due to restructuring of the document.	1
G 3.2.13	G 2.11.1 G 2.11.2	Redrafted	To separate the information on historic practice from the information on current requirements.	1

Business case for change

From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 3.2.14	G 2.11.5	Revised	Appendix F has been withdrawn following publication of BS EN 14363:2016+A2:2022.	1
G 3.2.15	N/A	Withdrawn	No longer appropriate due to restructuring of the document.	1
G 3.2.16	G 2.12.1	Redrafted	Figure 1 is an adapted version of the figure in the WAG TSI application guide rather than a copy.	1
Figure G 2	Figure 1	Revised	To reflect changes to the equivalent figure in the WAG TSI application guide and revisions to referenced standards.	1
G 3.2.17 – G 3.2.20	G 2.12.2 – G 2.12.6	Revised	To reflect the publication of BE EN 14363:2016+A2:2022.	1
G 3.2.21	N/A	Withdrawn	Text from NTSN not quoted as no guidance is offered.	1
G 3.2.22	G 2.13.3	Redrafted	For clarity.	1
G 3.2.23	G 2.14.1	Revised	To include reference to RIS-2766-RST.	1
G 3.2.24	G 2.15.1	Revised	To include reference to RIS-2766-RST.	1
G 3.2.25	G 2.16.1	Revised	To include reference to RIS-2714-RST and remove the erroneous reference to a specific case.	1
G 3.2.26 G 3.2.27	G 2.17.1	Redrafted	To combine into a single clause for clarity.	1
G 3.2.28	G 2.18.1	Redrafted	To remove hidden requirement in word 'should'.	1

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From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 3.2.29	G 2.19.1 G 2.19.2	Redrafted	To separate the point regarding Appendix C from the information about the UIC brake system.	1
G 3.2.20	N/A	Withdrawn	No longer appropriate due to restructuring of the document.	1
G 3.2.21	G 2.21.2 G 2.21.3	Redrafted	To remove hidden requirement in word 'should'.	1
G 3.2.32	G 2.22.1 G 2.22.2	Redrafted	To remove hidden requirement in word 'should'.	1
G 3.2.33	G 2.23.1	Redrafted	For clarity.	1
G 3.2.34	G 2.24.1	Revised	To clarify that for some vehicles fitment of WSP is mandatory.	1
G 3.2.35	N/A	Withdrawn	No longer appropriate due to restructuring of the document.	1
G 3.2.36	N/A	Withdrawn	Text from NTSN not quoted as no guidance is offered.	1
G 3.2.37	G 2.27.1 – G 2.27.3	Revised	To make reference to relevant RSSB standards publications.	1
G 3.2.38	G 2.28.3	Revised	To make reference to the design of lamp bracket in GMRT2131.	1
G 3.2.39	N/A	Withdrawn	Text from NTSN not quoted as no guidance is offered.	1
G 3.2.40	N/A	Withdrawn	Text from NTSN not quoted as no guidance is offered.	1
G 3.2.41	N/A	Withdrawn	Text from NTSN not quoted as no guidance is offered.	1

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From GMGN2688 issue two	To GMGN2688 issue three	Way forward	Comments	Objective
G 3.2.42	G 2.29.1 G 2.29.2	Revised	Additional guidance on handrails and loading requirements added.	1
G 3.2.43	N/A	Withdrawn	Text from the NTSN is not quoted as no guidance is offered.	1
G 3.2.44	G 2.22.4	Redrafted	Combined with guidance on parking brake systems.	1
N/A	Chapter 3	New	New guidance on the application of the NOI NTSN to freight wagons.	1
Appendix A	Appendix A	Redrafted	To remove hidden requirements throughout from use of the word 'should'.	1
Appendix B	Appendix B	Redrafted	To remove hidden requirements throughout from use of the word 'should' and add relevant additional references to standards, the WAG NTSN and RID.	1
Appendix C	Appendix C	Redrafted	To remove hidden requirements throughout from use of the word 'should'. Guidance on RID added. Guidance on lamp brackets removed due to duplication of content in the main body text.	1
Appendix D	Appendix D	Redrafted	To remove hidden requirements throughout from use of the word 'should'. Guidance on RID added.	1
Appendix E	Appendix E	Redrafted	To remove hidden requirements throughout from use of the word 'should' and add relevant additional references to standards.	1
Appendix F	Withdrawn	N/A	No longer required following publication of BS EN 14363:2016.	1
Appendix G	Appendix F	Revised	To reflect publication of BS EN 14363:2016.	1

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