COMMISSION IMPLEMENTING REGULATION (EU) 2020/387
of 9 March 2020
amending Regulations (EU) No 321/2013, (EU) No 1302/2014 and (EU) 2016/919 as regards the extension of the area of use and transition phases

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive (EU) 2016/797 of the European Parliament and of the Council of 11 May 2016 on the interoperability of the rail system within the European Union (1), and in particular Article 5(11) thereof,

Whereas:

(1) Pursuant to Article 54(2) and (3) of Directive (EU) 2016/797, vehicles authorised for placing in service prior to 15 June 2016 are to receive a new authorisation for placing on the market in accordance with Article 21 of that Directive before they can be operated on one or more networks which are not already covered by their initial authorisation. Such vehicles are thus required either to conform to the technical specifications for interoperability (TSIs) in force or be entitled not to apply those TSIs pursuant to Article 7(1) of that Directive. At the same time, one of the objectives of Directive (EU) 2016/797 is the streamlining and harmonisation of authorisation procedures at Union level to facilitate the free movement of vehicles. To this end, clause 7.6.1 of the Annex to Commission Regulation (EU) No 321/2013 (2) and clause 7.5.2.3 of the Annex to Commission Regulation (EU) No 1302/2014 (3) call for the development of flexibility provisions with regards to compliance with the TSI requirements. Those provisions are to set out which level of flexibility could be granted in case of extension of the area of use of vehicles placed in service before 15 June 2016, while fulfilling the essential requirements, maintaining the appropriate safety level, and where reasonably practicable, improving it. Those Regulations should therefore be amended accordingly. The provision related to ‘extension of area of use’ also covers the case of vehicles needing modifications to ensure technical compatibility with the new network(s); in such case, the unchanged parts of the vehicle remain validated under the previous authorisation. Restrictions and limitations of previous authorisation continue to apply. For the same reasons, such clarification should also be provided for Commission Regulation (EU) 2016/919 (4).

(2) There are divergent approaches amongst notified bodies and authorising entities in the rail sector with regards to the application of the different transitional provisions set out in clauses 7.1.1.2 to 7.1.1.8 and clause 7.1.3.1 of the Annex to Regulation (EU) No 1302/2014. Similarly, there are divergent approaches in the rail sector with regards to the validity period of EC type or design examination certificates in case of changes to an existing rolling stock type, as set out in clause 7.2.2.2 of the Annex to Regulation (EU) No 321/2013 and clause 7.1.2.2 of the Annex to Regulation (EU) No 1302/2014. In addition to this, further harmonisation reducing the divergences from the target system are essential to reduce the cost of railways and ensure their interoperability and competitiveness. The provisions listed above should thus be amended to avoid divergent application of those transition provisions and validity periods of certificates, while future transition periods should focus on specific requirements with high impact on ongoing projects instead of providing generic exemptions, in a way that will lead to timely reduction of the divergences from the target system while providing the predictability and legal certainty necessary to the sector. This should be achieved in the framework of the Digital rail and Green freight TSI revision package (2022 revision) for which the Commission sent a request to the European Union Agency for Railways on 24 January 2020.

(1) OJ L 138, 26.5.2016, p. 44.
Furthermore, Member States and the sector have identified some technical and editorial errors in some of these regulations, and the Slovak Republic has identified that the general specific case set out in section 7.3.2.1 of the Annex to Commission Regulations (EU) No 321/2013 (WAG TSI) should also apply to its 1 520 mm track gauge network. These errors should be corrected.

Under Decision (EU) 2017/1474, TSIs should indicate whether it is necessary to re-notify the conformity assessment bodies that were notified on the basis of a previous version of the TSI and whether a simplified notification process should be applied. This Regulation brings about limited changes and it should not be necessary to re-notify bodies notified on the basis of a previous version of the TSIs.

This Regulation amends TSIs so as to further achieve interoperability within the Union rail system, improve and develop international rail transport, contribute to the progressive creation of the internal market and complement TSIs in view of covering essential requirements. It enables to achieve the objectives and to meet the essential requirements of Directive 2008/57/EC of the European Parliament and of the Council (1) and Directive (EU) 2016/797. Therefore this Regulation should be directly applicable in all Member States including Member States which have notified the Agency and the Commission under Article 57(2) of Directive (EU) 2016/797 that they have extended the transposition period and thus continue to apply Directive 2008/57/EC until 15 June 2020 at the latest. Notified Bodies exercising under Directive 2008/57/EC in the Member States that have extended the transposition period should be able to issue ‘EC’ certificate in accordance with this Regulation as long as Directive 2008/57/EC applies in the Member State where they are established.

The measures provided for in this Regulation are in accordance with the opinion of the Committee referred to in Article 51(1) of Directive (EU) 2016/797.

HAS ADOPTED THIS REGULATION:

**Article 1**

Amendments to WAG TSI

Regulation (EU) No 321/2013 is amended as follows:

1. in Article 3, point (d) is added as follows:

   ‘(d) when the area of use is extended in accordance with article 54(3) of Directive (EU) 2016/797, provisions in Section 7.2.2.4 of the Annex to this Regulation shall apply;’

2. the Annex is amended in accordance with Annex I to this Regulation.

**Article 2**

Amendments to LOC&PAS TSI

Regulation (EU) No 1302/2014 is amended as follows:

1. in Article 3, paragraph 2 is replaced as follows:

   ‘2. The TSI shall not apply to existing rolling stock of the rail system in the Union which is already placed in service on all or part of the network of any Member State on 1 January 2015, except when

   (a) it is subject to renewal or upgrading in accordance with Section 7.1.2 of the Annex to this Regulation; or

   (b) the area of use is extended in accordance with Article 54(3) of Directive (EU) 2016/797, in which case the provisions in Section 7.1.4 of the Annex to this Regulation shall apply;’

2. in the second subparagraph of Article 11(1), the introductory phrase is replaced by the following:

   ‘They shall however continue to apply, without prejudice to clauses 7.1.1.4 to 7.1.1.8 of the Annex, to;’

3. the Annex is amended in accordance with Annex II to this Regulation.

Article 3

Amendments to CCS TSI

Regulation (EU) 2016/919 is amended as follows:

(1) in Article 2, paragraph 2 is replaced as follows:

'2. The TSI shall not apply to existing “trackside control-command and signalling” and “on-board control-command and signalling” subsystems of the rail system already placed in service on all or part of any Member State’s railway network on the day this Regulation enters into force, except when

(a) the subsystem is subject to renewal or upgrading in accordance with Section 7 of the Annex to this Regulation; or
(b) the area of use is extended in accordance with Article 54(3) of Directive (EU) 2016/797, in which case the provisions of Section 7.4.2.4 of the Annex to this Regulation shall apply.‘

(2) the Annex is amended in accordance with Annex III to this Regulation.

Article 4

Conformity assessment bodies

1. Notifications of conformity assessment bodies for the purposes of Regulations (EU) No 321/2013, (EU) No 1302/2014 and (EU) 2016/919 shall remain valid on the basis of those Regulations, as amended by the present Regulation.

2. Conformity assessment bodies notified in accordance with Directive 2008/57/EC may issue ‘EC’ certificate of verification and ‘EC’ certificate of conformity or suitability for use of interoperability constituents in accordance with this Regulation as long as Directive 2008/57/EC applies in the Member State where they are established in accordance with Article 57(2) of Directive (EU) 2016/797 and until 15 June 2020 at the latest.

Article 5

Entry into force

This Regulation shall enter into force on the day following that of its publication in the Official Journal of the European Union.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 9 March 2020.

For the Commission

The President

Ursula VON DER LEYEN
ANNEX I

The Annex to Regulation (EU) No 321/2013 is amended as follows:

(1) in clause 4.2.2.2, the title ‘Strength of unit’ is added;

(2) in clause 6.1.2.2, the following paragraph is added between the first and the second paragraphs:

‘Alternative demonstration of conformity is allowed in accordance with point 6.1.2.4a.;’

(3) in clause 6.1.2.3, the following paragraph is added before point (b):

‘Alternative demonstration of conformity is allowed in accordance with point 6.1.2.4a.;’

(4) in clause 6.1.2.4, the following paragraph is added at the end of the clause:

‘Alternative demonstration of conformity is allowed in accordance with point 6.1.2.4a.;’

(5) the following clause 6.1.2.4a is added between clause 6.1.2.4 and clause 6.1.2.5:

‘Where the EN standards referred to in points 6.1.2.2, 6.1.2.3 and 6.1.2.4 do not cover the proposed technical solution, it is permitted to use other standards to demonstrate conformity of the mechanical behaviour of the wheelset assembly, the mechanical characteristics of the wheels and the mechanical resistance and fatigue characteristics of the axle respectively; in that case the notified body shall verify that the alternative standards form part of a technically consistent set of standards applicable to the design, construction and testing of the wheelsets, containing specific requirements for wheelset, wheels and axles covering:

— wheelset assembly,

— mechanical resistance,

— fatigue characteristics,

— permissible stress limits,

— thermomechanical characteristics.

Only standards that are publicly available can be referred to in the demonstration required above. The verification carried out by the notified body shall ensure the consistency between the methodology of the alternative standards, the assumptions taken by the applicant, the intended technical solution and the intended area of use.’;

(6) in clause 7.2.2.2, the three paragraphs directly following Table 11a are replaced by the following:

‘In order to establish the EC type or design examination certificate, the notified body selected by the entity managing the change may refer to:

— the original EC type or design examination certificate for parts of the design that are unchanged or those that are changed but do not affect the conformity of the subsystem, as far as it is still valid (during 10 years phase B period),

— additional EC type or design examination certificate (amending the original certificate) for modified parts of the design that affect the conformity of the subsystem with the latest revision of this TSI in force at that time.

The validity period of the EC type or design examination certificate for the modified type, type variant or type version shall be limited to 10 years from the date of issuing, without exceeding 14 years after the date of appointment of a notified body by the applicant for the initial rolling stock type (beginning of phase A of the original EC type or design examination certificate).’;
(7) in clause 7.2.2.2, the row ‘4.2.4.3.2.1 Service brake’ of table 11a is replaced by the following:

<table>
<thead>
<tr>
<th>‘4.2.4.3.2.1 Service brake’</th>
<th>Stopping distance</th>
<th>Change of stopping distance of more than ±10%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stopping distance</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Maximum deceleration for the load condition “design mass under normal payload” at the maximum design speed</td>
<td>Change of more than ±10% on the maximum average brake deceleration</td>
</tr>
</tbody>
</table>

(8) in clause 7.2.2.3, the first paragraph is replaced by the following:

‘The following rules apply, in addition to clause 7.2.2.2, to existing units with a first authorisation for placing in service before 1 January 2015, where the scope of the change has an impact on basic parameters not covered by the EC declaration’;

(9) in clause 7.2.2.3, the third paragraph is replaced by the following:

‘The particular rule set out in the above paragraph is not applicable in changes impacting the basic parameters and classified as 21(12)a set out in table 11b. For those changes, compliance with the TSI requirements is mandatory’;

(10) the following clause 7.2.2.4 is added:

‘7.2.2.4. Rules for the extension of the area of use for existing units having an authorisation in accordance with Directive 2008/57/EC or in operation before 19 July 2010

(1) In the absence of full conformity with this TSI, point 2 applies to units that fulfil the following conditions when requesting an extension of their area of use in accordance with Article 21(13) of Directive (EU) 2016/797:

1. they have been authorised in accordance with Directive 2008/57/EC or put in operation before 19 July 2010;

2. they are registered with “Valid” registration code “00”, in the National Vehicle Register in accordance with Commission Decision 2007/756/EC (*) or in the European Vehicle Register in accordance with Commission Implementing Decision (EU) 2018/1614 (**) and maintained in a safe state of running in accordance with Commission Implementing Regulation (EU) 2019/779 (***)

The following provisions for extension of area of use apply also in combination with a new authorisation as defined in point (a) of Article 14(3) of Regulation (EU) 2018/545.

(2) Authorisation for an extended area of use of the units referred to in point 1 shall be based on the existing authorisation, if any, the technical compatibility between the unit and the network in accordance with point (d) of Article 21(3) of Directive (EU) 2016/797 and compliance with the Basic Design Characteristics of Table 11a of this TSI, taking into account any restrictions or limitations.

The applicant shall provide an “EC declaration of verification” accompanied by technical files giving evidence of compliance with the requirements set out in this TSI, or with provisions having equivalent effect, for each basic parameter referred to in column 1 of Table 11a of this TSI, through one or a combination of the following:

(a) compliance with requirements of this TSI as referred above;

(b) compliance with corresponding requirements set out in a previous TSI as referred above;
(c) compliance with alternative specifications deemed to have equivalent effect to the relevant requirements set out in this TSI as referred above;

(d) evidence that the requirements for technical compatibility with the network of the extended area of use are equivalent to the requirements for technical compatibility with the network for which the unit is already authorised or in operation. Such evidence shall be provided by the applicant and may be based on the information in the register of railway infrastructure (RINF).

(3) The equivalent effect of alternative specifications to the requirements of this TSI (point 2(c)) and the equivalence of requirements for technical compatibility with the network (point 2(d)) shall be justified and documented by the Applicant by applying the risk management process set out in Annex I of Regulation (EU) No 402/2013. The applicant shall provide a positive assessment by an assessment body (CSM RA).

(4) In addition to the requirements referred to in point 2 and where applicable, the applicant shall provide an “EC declaration of verification” accompanied by technical files giving evidence of compliance with the following:

(a) specific cases relating to any part of the extended area of use, listed in this TSI, the TSI Noise (Regulation (EU) No 1304/2014) and CCS TSI (Regulation (EU) 2016/919);

(b) the national rules referred to in points (a), (c) and (d) of Article 13(2) of Directive (EU) 2016/797 as notified in accordance with Article 14 of that Directive.

(5) The authorising entity shall make publicly available through the Agency website details of the alternative specifications referred to in point 2(c) and of the requirements for technical compatibility with the network referred to in point 2(d) on the basis of which it granted authorisations for the extended area of use.

(6) Where an authorised vehicle benefited from non-application of TSIs or part of them pursuant to Article 9 of Directive 2008/57/EC, the applicant shall seek derogation(s) in the Member States of the extended area of use in accordance to Article 7 of Directive (EU) 2016/797.

(7) In accordance with Article 54(2) of Directive (EU) 2016/797, wagons used under Regolamento Internazionale Veicoli (RIV) shall be deemed authorised in accordance with the conditions under which they were used, including the area of use where they are operated. Following a change which requires a new authorisation for placing on the market in accordance with Article 21(12) of Directive (EU) 2016/797, wagons accepted under the latest RIV agreement shall conserve the area of use in which they were operating without further checks on the unchanged parts.


(11) in clause 7.3.2.1, the first sentence is replaced by the following:

‘Units running between a Member State and a third country with a network with 1520 mm track gauge: Specific case Finland, Poland, Slovak Republic and Sweden.’;

(12) in clause 7.3.2.2(a), the last paragraph is replaced by the following:

‘Units mutually recognised in accordance with point 7.1.2 and units equipped with on-board axle bearing condition monitoring equipment are exempted from this specific case. The exemption of units in accordance with point 7.1.2 is not applicable when using other conformity assessment methods in accordance with point 6.1.2.4a.’;
(13) in clause 7.3.2.5, the title is replaced by the following:

‘7.3.2.5. Characteristics of wheelsets, wheels and axles (points 4.2.3.6.2 and 4.2.3.6.3)
Specific case UK for Great Britain’;

(14) Clause 7.6.1, ‘Rules for extension of area of use for existing rolling stock not covered by an EC declaration of verification’ is replaced by:

‘7.6.1. Rules for implementation


Pursuant to Commission Delegated Decision (EU) 2017/1474, the Digital rail and Green freight TSI revision package shall include provisions reviewing and if possible simplifying the strategy for the application of the TSIs in a way ensuring a gradual, but timely reduction of the divergences from the target system while providing the predictability and legal certainty necessary to the sector. These provision shall cover future transition periods as well as the issue of the validity period of the certificates for interoperability constituents and subsystems.

Furthermore, with the same objective of ensuring a gradual, but timely reduction of the divergences from the target system while providing the predictability and legal certainty necessary to the sector, provisions providing flexibility in the application of updated versions of standards shall be considered, including for those introduced in Annex I (WAG 2019 TSI) to Commission Implementing Regulation (EU) 2019/776 (*).


(15) in Appendix C, ‘Additional optional conditions’, the following point is added at the end of the Appendix:

‘20. Running dynamic behaviour

The combination of maximum operating speed and maximum admissible cant deficiency shall be as shown in Table H.1 of EN 14363:2016.

Units equipped with established running gear as described in chapter 6 of EN 16235:2013 are presumed to be in conformity with this requirement.’
ANNEX II

The Annex to Regulation (EU) No 1302/2014 is amended as follows:

(1) in clause 4.2.2.5, point (5) the text ‘index 8, Table 1 section 5’ is replaced by ‘index 8, Table 1 section 4’;

(2) in clause 4.2.2.5, point (6), the text ‘index 8, Table 3 of section 5’ is replaced by ‘index 8, Table 2 of section 5’;

(3) in clause 4.2.2.5, point (7) is replaced by the following:

‘(7) Within the scope of the present TSI, the “collision speed” and “collision partner” when scenarios 1 and 2 are
applied to locomotives fitted with automatic end centre buffer couplers and capable of a traction effort at
coupling higher than 300 kN described in Table 2 of the specification referenced in appendix J-1, index 8 shall be:
— 20 km/h instead of 36 km/h for scenarios 1 and 2; and
— the reference wagon described in appendix D instead of reference wagon described in annex C.1 of the
specification referenced in appendix J-1, index 8 for scenario 2.

Note: such high traction effort is required for heavy haul freight locomotives.’;

(4) in clause 6.2.3.7, the following sentence is added at the end of point (7):

‘The verification carried out by the notified body shall ensure the consistency between the methodology of the
alternative standards, the assumptions taken by the applicant, the intended technical solution and the intended area
of use.’;

(5) in clause 7.1.2.2, point (11) is replaced by the following:

‘(11) In order to establish the EC type or design examination certificate, the notified body selected by the entity
managing the change may refer to:
— the original EC type or design examination certificate for parts of the design that are unchanged or those
that are changed but do not affect the conformity of the subsystem, as far as it is still valid (during 7 years
phase B period);
— additional EC type or design examination certificate (amending the original certificate) for modified parts of
the design that affect the conformity of the subsystem with the latest revision of this TSI in force at that
time.

The validity period of the EC type or design examination certificate for the modified type, type variant or type
version shall be limited to 7 years from the date of issuing, without exceeding 14 years after the date of
appointment of a notified body by the applicant for the initial rolling stock type (beginning of phase A of the
original EC type or design examination certificate).’;

(6) in clause 7.1.3.1, point (4) is replaced by the following:

‘(4) The TSI assessment basis for a type is defined for a phase A period, with a duration of maximum seven years.
Without prejudice to clauses 7.1.1.4 to 7.1.1.8, during the phase A period the assessment basis for EC
verification to be used by the notified body shall not change.’;

(7) the following clause 7.1.4 is added:

‘7.1.4. Rules for the extension of the area of use for existing rolling stock having an authorisation in accordance with Directive 2008/57/EC or in operation before 19 July 2010

(1) In the absence of full conformity with this TSI, point 2 applies to rolling stock that fulfils the following
conditions when requesting the extension of its area of use in accordance with Article 21(13) of Directive
(EU) 2016/797:
(a) it has been authorised in accordance with Directive 2008/57/EC or put in operation before
19 July 2010;
(b) it is registered with “Valid” registration code “00”, in the National Vehicle Register in accordance with
Commission Decision 2007/756/EC (*) or in the European Vehicle Register in accordance with
Commission Implementing Decision (EU) 2018/1614 (**) and maintained in a safe state of running
in accordance with Commission Implementing Regulation (EU) 2019/779 (***)

EN Official Journal of the European Union 10.3.2020                                                                                                                                           L 73/13
The following provisions for extension of area of use apply also in combination with a new authorisation as defined in point (a) of Article 14(3) of Regulation (EU) 2018/545.

(2) Authorisation for an extended area of use of the rolling stock referred to in point 1 shall be based on the existing authorisation, if any, and on the technical compatibility between the rolling stock and the network in accordance with point (d) of Article 21(3) of Directive (EU) 2016/797 and compliance with the Basic Design Characteristics of Table 17a and 17b of this TSI, taking into account any restrictions or limitations.

The applicant shall provide an "EC declaration of verification” accompanied by technical files giving evidence of compliance with the requirements set out in this TSI, or with provisions having equivalent effect, for each basic parameter referred to in column 1 of Tables 17a and 17b and with the following clauses of this TSI:

— 4.2.4.2.2, 4.2.5.5.8, 4.2.5.5.9, 4.2.6.2.3, 4.2.6.2.4, 4.2.6.2.5, 4.2.8.2.7, 4.2.8.2.9.8 (when running through phase or system separation sections is managed automatically), 4.2.9.3.1, 4.2.9.6, 4.2.12 and 4.2.12.6

— 4.2.5.3 in Italy

— 4.2.5.3.5 and 4.2.9.2.1 in Germany

through one or a combination of the following:

(a) compliance with requirements set out in this TSI as referred above;

(b) compliance with corresponding requirements set out in a previous TSI as referred above;

(c) compliance with alternative specifications deemed to have equivalent effect to the relevant requirements set out in this TSI as referred above;

(d) evidence that the requirements for technical compatibility with the network of the extended area of use are equivalent to the requirements for technical compatibility with the network for which the rolling stock is already authorised or in operation. Such evidence shall be provided by the applicant and may be based on the information of the register of railway infrastructure (RINF).

(3) The equivalent effect of alternative specifications to the requirements of this TSI (point 2(c)) and the equivalence of requirements for technical compatibility with the network (point 2(d)) shall be justified and documented by the applicant by applying the risk management process set out in Annex I of Regulation (EU) No 402/2013. The justification has to be assessed and confirmed by an assessment body (CSM RA).

(4) In addition to the requirements mentioned referred to in point 2 and where applicable, the applicant shall provide an “EC declaration of verification” accompanied by technical files giving evidence of compliance with the following:

(a) specific cases relating to any part of the extended area of use, listed in this TSI, the TSI Noise (Regulation (EU) No 1304/2014), the TSI PRM (Regulation (EU) No 1300/2014) and CCS TSI (Regulation (EU) 2016/919);

(b) the national rules referred to in points (a), (c) and (d) of Article 13(2) of Directive (EU) 2016/797 as notified in accordance with Article 14 of that Directive.

(5) The authorising entity shall make publicly available through the Agency website details of the alternative specifications referred to in point 2(c) and of the requirements for technical compatibility with the network referred to in point 2(d) on the basis of which it granted authorisations for the extended area of use.

(6) Where an authorised vehicle benefited from non-application of TSIs or part of them pursuant to Article 9 of Directive 2008/57/EC, the applicant shall seek derogation(s) in the Member States of the extended area of use in accordance to Article 7 of Directive (EU) 2016/797.
In accordance with Article 54(2) of Directive (EU) 2016/797, coaches used under Regolamento Internazionale Carrozze (RIC) shall be deemed authorised in accordance with the conditions under which they were used, including the area of use where they are operated. Following a change which requires a new authorisation for placing on the market in accordance with Article 21(12) of Directive (EU) 2016/797, coaches accepted under the latest RIC agreement shall conserve the area of use in which they were operating without further checks on the unchanged parts.


Clause 7.5.2.3 ‘Rules for extension of area of use for existing rolling stock not covered by an EC declaration of verification’ is replaced by:

‘7.5.2.3. Rules for implementation


Pursuant to Commission Delegated Decision (EU) 2017/1474, the Digital rail and Green freight TSI revision package shall include provisions reviewing and if possible simplifying the strategy for the application of the TSIs in a way ensuring a gradual, but timely reduction of the divergences from the target system while providing the predictability and legal certainty necessary to the sector. These provision shall cover future transition periods as well as the issue of the validity period of the certificates for interoperability constituents and subsystems.

Furthermore, with the same objective of ensuring a gradual, but timely reduction of the divergences from the target system while providing the predictability and legal certainty necessary to the sector, provisions providing flexibility in the application of updated versions of standards shall be considered, including for those introduced in Annex IV (LOC&PAS 2019 TSI) to Commission Implementing Regulation (EU) 2019/776 (*)


Appendix D is replaced by the following:

‘Appendix D

Reference wagon for locomotives fitted with automatic end centre buffer couplers and capable of a traction effort at coupling higher than 300 kN

For collisions between a train unit and a wagon fitted both with heavy duty couplers, the wagon shall be represented by a mass of 80 t which has only one degree of freedom in the translational x direction. The wagon interface geometry is shown in Figure D.1. The end wall and coupler head geometry shall be assumed to be rigid. It shall be equipped with a centre coupler with a stroke of 110 mm and the force-displacement characteristic indicated in Figure D.2. The total energy absorption capacity of the wagon coupler is 77 kJ.'
The coupler head geometry and height above top of rail shall be the same as that of the impacting train unit. The longitudinal distance of the coupler plane to the end wall of the wagon shall be 645 mm. For simplification it is allowed to model the coupler heads using the geometry and height given in Figure D.1.

Dimensions in millimetres

![Figure D.1](image1.png)

**Key:**
1. wagon end
2. top of rail
3. coupler plane

![Figure D.2](image2.png)

**Key:**
- Y: coupler force – coupler, in kN
- X: displacement, in mm

**Figure D.2**

**Wagon coupler characteristic:**

(10) in Appendix J-1, Index No 8 of the table is replaced by the following:

<table>
<thead>
<tr>
<th>8</th>
<th>Passive safety – general</th>
<th>4.2.2.5</th>
<th>EN 15227:2008+A1:2010</th>
<th>relevant cl. ()</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Passive safety – categorisation</td>
<td></td>
<td></td>
<td>4-table 1</td>
</tr>
<tr>
<td></td>
<td>Passive safety – obstacle deflector</td>
<td></td>
<td></td>
<td>6.5’</td>
</tr>
</tbody>
</table>
(11) in Appendix J-1, Index No 10 of the table is replaced by the following:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Lifting and jacking – marking</td>
<td>4.2.2.6</td>
<td>EN 15877-2:2013</td>
</tr>
</tbody>
</table>

(12) in Appendix J-1, Index No 36 of the table is replaced by the following:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>Environmental conditions – obstacle deflector</td>
<td>4.2.6.1.2</td>
<td>EN 15227:2008 +A1:2010</td>
</tr>
</tbody>
</table>

(13) in Appendix J-2, Index No 2 of the table is deleted.
ANNEX III

In the Annex to Regulation (EU) 2016/919, the following clause 7.4.2.4 is added:

‘7.4.2.4 Rules for the extension of the area of use for existing vehicle

The following rules apply to existing vehicles in operation and registered in the National Vehicle Register in accordance with Commission Decision 2007/756/EC (*), or in the European Vehicle Register in accordance with Commission Implementing Decision (EU) 2018/1614 (**), when requesting an extension of the area of use:

(1) Vehicles shall comply with relevant special provisions applicable in the specific cases referred to in clause 7.6 of this Annex and with relevant national rules referred to in points (a), (c) and (d) of Article 13(2) of Directive (EU) 2016/797 notified in accordance with Article 14 of that Directive. In addition, in cases of partial fulfilment of the requirements in this TSI, provisions in point 6.1.1.3(3) shall apply.

(2) Vehicles already equipped with ETCS or GSM-R do not need to be upgraded, except where required for technical compatibility.

(3) Vehicles that are not already equipped with ETCS shall install ETCS and comply with sets of specifications #2 or #3 referred to in Tables A 2.2 and A 2.3 of Annex A. Except where required for technical compatibility, the requirement to be equipped with ETCS shall not apply to:

(a) vehicles not specially designed for operation on high-speed lines (***) , if authorised before 1 January 2015 ;
(b) vehicles not specially designed for operation on high-speed lines, authorised as of 1 January 2015, in either of the following situations:
   (i) if they are intended exclusively for operations in one Member State outside the corridors specified in Annex I to Implementing Regulation (EU) 2017/6 and outside the lines ensuring the connections to the main European ports, marshalling yards, freight terminals and freight transport areas as referred to in Annex II to Regulation (EU) No 1315/2013:
   (ii) if they are intended for off-TEN cross-border service, namely service until the first station in the neighbouring country or to the first station where there are connections further in the neighbouring country utilising only lines outside of the TEN;
(c) vehicles in Member States applying Article 7.4.3(2), where the area of the use following the Extension of Area of Use is exclusively within the same Member State, except when the area of use following the Extension of Area of Use includes more than 150 km of a section equipped with ETCS at the time of the Extension of Area of Use or to be equipped with ETCS within 5 years after the Extension of the Area of Use of those vehicles;
(d) mobile railway infrastructure construction and maintenance equipment;
(e) shunting locomotives.

(4) Vehicles that are not yet equipped with GSM-R voice radio shall install GSM-R voice cab radio and comply with the specifications referred to in Tables A 2.1, A 2.2 and A 2.3 of Annex A when the vehicle is intended for use on a network including at least one point equipped with GSM-R, except if superimposed to a legacy radio communication system compatible with the class B already installed in the vehicle.

(5) Vehicles that are not yet equipped with GSM-R for ETCS data shall install GSM-R ETCS Data only Radio and comply with the specifications referred to in Tables A 2.1, A 2.2 and A 2.3 of Annex A when the vehicle is required to install ETCS in accordance with point 3 and it is intended to operate in a network in the extended area of use that is equipped with only ETCS Level 2 or 3.

(6) Where an authorised vehicle benefited from non-application of TSIs or part of them pursuant to Article 9 of Directive 2008/57/EC, the applicant shall seek derogation(s) in the Member States of the extended area of use in accordance to Article 7 of Directive (EU) 2016/797.

***) As set out in Annex I of Directive (EU) 2016/797.’