APPENDIX 16 TO THE GENERAL CONTRACT OF USE FOR WAGONS

WAGON VEHICLE DATA

Appendix 16 describes in more detail the information-related requirements laid out in article 7.4.

In accordance with pages 5-8, the keeper must provide the administrative and technical vehicle data for all wagons registered in the GCU database as soon as possible prior to the use of a wagon. The RU has access to this data at all times and may use it for its own operational purposes only.

The GCU Bureau provides a communication platform (GCU Broker) to the signatories for transmission of technical vehicle data.

Additional information - for example, a brief description of any instructions destined for technical inspectors and operational staff - must be made available bilaterally. Information is always required if vehicle-related technical matters are not provided for in Appendix 9 to the GCU.

Description of elements of technical vehicle data

Element	Status	Definition
WagonNumber- Freight	Mandatory	Identifies uniquely the freight wagon by its number
PreviousWagon- Number-Freight	Optional	For identification of a wagon after renumbering
Registration- Country	Mandatory	ISO country code of registration country
DatePutIntoService	Mandatory	Date of first operation
AuthorisationValid Until	Conditional	End date for restricted authorisation (applicable only in special cases)
SuspensionOf- Authorisation	Conditional	Information if authorisation has been suspended by the authority
DateSuspensionOf Authorisation	Conditional	Date of the suspension of authorisation; must be provided in case of suspension
Multilateral- Authorisation- Countries	Conditional	List of countries/railway letter codes where a wagon with a limited interoperable authorisation is allowed to be operated (derogation plate); first entry is the authorising country/railway and following entries are the accepting countries/railways
ChannelTunnel- Permitted	Optional	Indication if wagon is allowed to pass the Channel Tunnel - if the transport is planned between UK and France and should use Eurotunnel infrastructure
KeeperShortName VKM	Mandatory	Vehicle Keeper Marking of the wagon keeper as listed in VKM register (http://www.era.europa.eu/Document-Register/Pages/list-VKM.aspx, column B - without special characters)
ECM	Mandatory	Full name of the assigned Entity in Charge of Maintenance
PlannedChangeOf ECM	Conditional	Date until the current Entity in Charge of Maintenance is assigned to the wagon and full name of the following Entity in Charge of Maintenance
ECMCertificate	Mandatory	ECM certificate information
InteropCapability	Mandatory	Identification of the general interoperability capability of the wagon. The following values/codes are proposed for the usage (defined in the InteropCapabilityCode): 01 = National 02 = Bi-/Multilateral (with agreement or authorisation grid) 03 = RIV 05 = TEN 06 = TEN-GE 07 = TEN-CW 08 = TEN RIV
GCUWagon	Mandatory	Indication if wagon is operated under the GCU contract
LetterMarking	Mandatory	Complete wagon category letter code. The Identification marking for freight rolling stock (wagon type) is defined in the Uniform Technical Prescription applicable to Vehicle Numbers and linked alphabetical marking on the bodywork: The Railway Vehicle Marking (UTP Marking), issued by the OTIF.
TankCode	Conditional	Tank code (applies only for tank wagons). The codes are defined in the RID regulation, chapter 4.3.3 and 4.3.4.1.1
WagonNumberOf- Axles	Mandatory	Number of Axles for a wagon
WheelSetType	Optional	Type name of the wheel sets, and the name of the type depends on the manufacturer.

WheelDiameter	Optional	Diameter of wheels measured in mm. Reference wheel diameter at maximum.
		maximum.

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WheelsetGauge	Mandatory	Track Gauge measured in mm; multi-entry for wagons with changeable wheel set gauge
WheelSet- Transformation- Method	Conditional	Description of the wheel set transformation method for wagons with a changeable wheel set gauge. Code list: 1 = Automatic, 2 = Bogie/axle change
NumberOfBogies	Conditional	Number of bogies.
BogiePitch	Conditional	Bogie Wheelbase measured in mm.
BogiePivotPitch	Conditional	Largest distance between two adjacent bogie pitches in mm.
InnerWheelbase	Mandatory	Maximum distance between two adjacent axles in mm
CouplingType	Optional	Classification of coupling: 0 = without coupler 1 = non-reinforced coupler less than 85t 2 = reinforced coupler equals to 85t 3 = ultra-reinforced coupler greater than 85t 4 = automatic coupling
BufferType	Optional	Classification of buffer. The following values are mostly used in the sector: A, AX, B, C, CX, L0 (130), L0 (150), L2 (130), L2 (150), L4 (130), L4 (150)
NormalLoading- Gauge	Conditional	Indicates the wagon loading gauge. When the wagon loading gauge is marked on the wagon the information must be provided in the RSRD message. Codes are defined in UIC leaflet 505-1/503 and EN 15273-2:2013 Code list.
MinCurveRadius	Mandatory	Minimum allowed curve radius of the wagon. Measured in Metres.
MinVerticalRadius YardHump	Mandatory	Minimum allowed vertical radius over yard humps. Measured in Meters.
WagonWeight- Empty	Mandatory	The weight of an empty wagon according to the entry in the rolling stock database. Measured in kg.
LengthOverBuffers	Mandatory	Length over buffers is expressed in cm.
MaxAxleWeight	Mandatory	Indicates the maximum design axle weight (to).
LoadTable	Mandatory	Indicates the load tables marked on the wagon. When load tables are marked on the wagon the information must be provided in the RSRD message. Several load tables (international, product specific for LPG wagons and additional/country specific) can be specified by providing the element several times consecutively. For special wagons with specific load tables (e.g. heavy haul wagons) no load table need to be provided. The complete load table must be provided including the empty load row (if existent).
NumberOfBrakes	Mandatory	Number of air brake control valves.
BrakeSystem	Optional	Abbreviation of air brake system. Following values are examples: Kk; Dr; Bo; Hik; Bd; Ch; O; KE; WE; DK; WU; WA; DM; MH, SW; KE 435; through brake pipe
AirBrakeType	Mandatory	Classification of air brake. 0 = through brake pipe 1 = G 2 = P 3 = G/P 8 = No air brake or brake pipe 9 = non coded
BrakingPower- VariationDevice	Mandatory	Type of braking power variation device: 0 = No braked weight variation device 1 = Manual or automatic device with 1 changeover weight and 2 positions 2 = 2 or more changeover weights and 2 or more positions 8 = Linear auto continuous device with indication of max braked weight 9 = Non- coded variation device

BlockInstallation-Date MaxLengthOfLoad Optional Loading length in mm for flat wagons and covered wagons with a flat floor minus the thickness of any intermediate partitions (useful length). LoadArea Optional Surface area in m² of the floor of covered wagons and wagons with an opening roof and flat floor. HeightOfLoading-PlaneUnladen RemovableAccess optional RemovableAccess optional The type and number of removable accessories are to be indicated. LoadingCapacity Mandatory Usable Cube - measured in M3. MaxGrossWeight Mandatory Weight of max Gross Load Weight plus the tare weight of the equipment. VapourReturn-System Optional Indication if tank wagon is permitted to be used on ferries and the maximum allowed angle of the ferry ramp (in grades: °). Applicable if ferry permitted. Temperature-Range Optional Allowed environmental temperature range.	AirBrakedMass	Mandatory	Different uses depending on air brake variation device: No variation device = sole braked mass of wagon Brake device with changeover weights = braked mass empty Brake with auto continuous device = maximum braked mass
BrakeSpecial- Characteristics Mandatory Characteristics Mandatory Characteristics Mandatory Characteristics Mandatory Characteristics Characteristics Mandatory Characteristics Mandatory Characteristic (graduated release brake with cast iron blocks) "GG" 1 = Disc brake 2 = Composite brake blocks 3 = Single release brake 4 = Single release brake with composite brake blocks 5 = L-Brake 6 = LL-Brake 6 = LL-Brake 7 = Non-coded information Mandatory Characteristic (graduated release brake with cast iron blocks) 3 = Single release brake with composite brake blocks 5 = L-Brake 6 = LL-Brake 6 = LL-Brake 7 = Non-coded information Mandatory Characteristic (graduated release brake with cast iron blocks) 3 = Single release brake with composite brake blocks 5 = L-Brake 6 = LL-Brake 6 = LL-Brake 7 = Non-coded information Characteristic (graduated release brake with cast iron blocks 6 = LL-Brake 7 = Non-coded information Characteristic (graduated release brake with cast iron blocks 8 = Rushe blocks 8 = Single release brake with composite brake blocks 9 = Non-coded information Characteristic (graduated release brake with cast iron blocks 8 = Rushe blocks 9 = Non-coded information Characteristic (graduated release brake with cast iron blocks 8 = Rushellocks 2 = Platform-operated hand brake 1 = Ground-operated hand brake 1		Conditional	Change over weight of braked weight in tonnes variation device.
Characteristics 0 = No special characteristic (graduated release brake with cast iron blocks) "GG" 1 = Disc brake 2 = Composite brake blocks 3 = Single release brake with composite brake blocks 5 = L-Brake 9 = Non-coded information		Conditional	Braked weight in tonnes loaded for change over weight.
0 = No hand brake 1 = Ground-operated hand brake 2 = Platform-operated hand brake In case the wagon is equipped with a ground and platform operated hand brake, code 2 (platform-operated hand brake) has to be used. HandBraked- Weight Conditional Braked weight of the hand brake in tons. ParkingBrakeForce Conditional Braked weight of the hand brake in tons. BrakeBlockName Optional Name of the brake block type, including the length in mm. CompositeBrake- BlockRetrofitted Conditional Indication if composite brake blocks are retrofitted or originally equipped wagon = BlockRetrofitted CompositeBrake- BlockInstallation- Date Conditional Date of composite brake block installation, for originally equipped wagon = date put into service. MaxLengthOfLoad Optional Loading length in mm for flat wagons and covered wagons with a flat floor minus the thickness of any intermediate partitions (useful length). LoadArea Optional Surface area in m² of the floor of covered wagons and wagons with an opening roof and flat floor. HeightOfLoading- PlaneUnladen Optional Height of the loading plane when wagon is empty measured in mm. RemovableAccess ories Optional The type and number of removable accessories are to be indicated. ories LoadingCapacity Mandatory Usable Cube - measured in M3. MaxGro		Mandatory	0 = No special characteristic (graduated release brake with cast iron blocks) "GG" 1 = Disc brake 2 = Composite brake blocks 3 = Single release brake 4 = Single release brake with composite brake blocks 5 = L-Brake 6 = LL-Brake
Weight Braked weight of the hand brake in tons. BrakeBlockName Optional Name of the brake block type, including the length in mm. CompositeBrake-BlockRetrofitted Conditional Indication if composite brake blocks are retrofitted or originally equipped. CompositeBrake-BlockInstallation-Date Conditional Date of composite brake block installation, for originally equipped wagon adate put into service. MaxLengthOfLoad Optional Loading length in mm for flat wagons and covered wagons with a flat floor minus the thickness of any intermediate partitions (useful length). LoadArea Optional Surface area in m² of the floor of covered wagons and wagons with an opening roof and flat floor. HeightOfLoading-PlaneUnladen Optional Height of the loading plane when wagon is empty measured in mm. RemovableAccess ories Optional The type and number of removable accessories are to be indicated. LoadingCapacity Mandatory Usable Cube - measured in M3. MaxGrossWeight Mandatory Weight of max Gross Load Weight plus the tare weight of the equipment. VapourReturn-System Optional Indication if tank wagon is equipped with a vapour return system. FerryPermittedFlag Optional Indication if wagon is permitted to be used on ferries and the maximum allowed a	HandBrakeType	Mandatory	0 = No hand brake 1 = Ground-operated hand brake 2 = Platform-operated hand brake In case the wagon is equipped with a ground and platform operated hand
BrakeBlockName Optional Name of the brake block type, including the length in mm. CompositeBrake-BlockRetrofitted CompositeBrake-BlockInstallation-Date CompositeBrake-BlockInstallation-Date MaxLengthOfLoad Optional Loading length in mm for flat wagons and covered wagons with a flat floor minus the thickness of any intermediate partitions (useful length). LoadArea Optional HeightOfLoading-PlaneUnladen RemovableAccess ories Optional The type and number of removable accessories are to be indicated. VapourReturn-System Optional FerryPermittedFlag Optional Indication if wagon is permitted to be used on ferries and the maximum allowed angle of the ferry ramp (in grades: °). Applicable if ferry permitted. Allowed environmental temperature range.		Conditional	Braked weight of the hand brake in tons.
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BlockRetrofitted CompositeBrake-BlockInstallation-Date Conditional Date of composite brake block installation, for originally equipped wagon = date put into service. MaxLengthOfLoad Optional Coptional Date of composite brake block installation, for originally equipped wagon = date put into service. MaxLengthOfLoad Optional Coptional Doptional Coptional Height of the loading plane when wagon is empty measured in mm. Height of the loading plane when wagon is empty measured in mm. The type and number of removable accessories are to be indicated. CoddingCapacity Mandatory Mandatory Weight of max Gross Load Weight plus the tare weight of the equipment. VapourReturn-System PerryPermittedFlag Optional Indication if tank wagon is equipped with a vapour return system. PerryPampAngle Conditional Maximum allowed angle of the ferry ramp (in grades: °). Applicable if ferry permitted. Temperature-Range Allowed environmental temperature range.	BrakeBlockName	Optional	Name of the brake block type, including the length in mm.
BlockInstallation-Date date put into service. MaxLengthOfLoad Optional Loading length in mm for flat wagons and covered wagons with a flat floor minus the thickness of any intermediate partitions (useful length). LoadArea Optional Surface area in m² of the floor of covered wagons and wagons with an opening roof and flat floor. HeightOfLoading-PlaneUnladen Optional Height of the loading plane when wagon is empty measured in mm. RemovableAccess ories Optional The type and number of removable accessories are to be indicated. LoadingCapacity Mandatory Usable Cube - measured in M3. MaxGrossWeight Mandatory Weight of max Gross Load Weight plus the tare weight of the equipment. VapourReturn-System Optional Indication if tank wagon is equipped with a vapour return system. FerryPermittedFlag Optional Indication if wagon is permitted to be used on ferries and the maximum allowed angle of the ferry ramp (in grades: °). Applicable if ferry permitted. Temperature-Range Optional Allowed environmental temperature range.		Conditional	Indication if composite brake blocks are retrofitted or originally equipped.
minus the thickness of any intermediate partitions (useful length). LoadArea Optional Surface area in m² of the floor of covered wagons and wagons with an opening roof and flat floor. HeightOfLoading-PlaneUnladen Optional Height of the loading plane when wagon is empty measured in mm. RemovableAccess ories Optional The type and number of removable accessories are to be indicated. LoadingCapacity Mandatory Usable Cube - measured in M3. MaxGrossWeight Mandatory Weight of max Gross Load Weight plus the tare weight of the equipment. VapourReturn-System Optional Indication if tank wagon is equipped with a vapour return system. FerryPermittedFlag Optional Indication if wagon is permitted to be used on ferries and the maximum allowed angle of the ferry ramp (in grades: °). FerryRampAngle Conditional Maximum allowed angle of the ferry ramp (in grades: °). Applicable if ferry permitted. Temperature-Range Allowed environmental temperature range.	BlockInstallation-	Conditional	Date of composite brake block installation, for originally equipped wagon = date put into service.
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System FerryPermittedFlag Optional Indication if wagon is permitted to be used on ferries and the maximum allowed angle of the ferry ramp (in grades: °). FerryRampAngle Conditional Maximum allowed angle of the ferry ramp (in grades: °). Applicable if ferry permitted. Temperature-Range Optional Allowed environmental temperature range.	MaxGrossWeight	Mandatory	Weight of max Gross Load Weight plus the tare weight of the equipment.
allowed angle of the ferry ramp (in grades: °). FerryRampAngle Conditional Maximum allowed angle of the ferry ramp (in grades: °). Applicable if ferry permitted. Temperature-Range Optional Allowed environmental temperature range.		Optional	Indication if tank wagon is equipped with a vapour return system.
Temperature- Range Optional Allowed environmental temperature range.	FerryPermittedFlag	Optional	
Range	FerryRampAngle	Conditional	Maximum allowed angle of the ferry ramp (in grades: °). Applicable if ferry permitted.
Noise Optional Noise limit on reference track and noise level at standstill in decibels		Optional	Allowed environmental temperature range.
-1	Noise	Optional	Noise limit on reference track and noise level at standstill in decibels

Technical- Forwarding- Restrictions	Conditional	This element is designed to identify any special aspects or restrictions which might be relevant to wagon handling operations in train formation yards or in trains because of technical feature of the wagon or its load. All codes of transport restrictions for Freight Traffic (cf. UIC 920-13) and Passengers Traffic are in the same list which is contained in the code list RestrictionCodes. In this element only those codes are used, that have "T - Technical" characteristics and "F - Freight" as type. The codes below are sorted out from the RestrictionCodes. Only these codes should be used in this element. 07 Shunt only when hand brake operable with ground staff 11 Wagon other than bogie wagon with wheelbase of more than 9 metres 12 Bogie wagon with distance between wheels of more than 14 metres and up to and including a distance of 17,50 metres 13 Bogie wagon with distance between wheels of more than 17,50 metres 15 Wagon not allowed over the hump 16 Do not fly shunt or gravity shunt (3 red triangles) 18 Must not use active braking equipment 25 Gas carrying tank wagon with orange side stripe 41 Place this wagon at the front of the train 42 Place this wagon at the rear of the train 63 Special consignment or (for Passengers trains) loading/cinematic gauge larger than the planned one 70 Shunt with care (1 red triangle) 71 Shunt with special care (2 red triangle) 94 Gas carrying wagon without orange side stripe
DateLastOverhaul	Mandatory	Date of the last overhaul. For wagons newly placed on the market, date put into service shall be used.
DateNextOverhaul	Mandatory	Date of next planned overhaul.
Permitted- Tolerance	Mandatory	Permitted tolerance after date of overhaul (in months). In case no tolerance is allowed, value shall be "0".
DateOfNextTank- Inspection	Conditional	Date of the next tank inspection applies only for tank wagons.

Remarks

The XSD diagram and sample files are available to download from the GCU website.