

OTIF

Status: ADOPTED

APTU Uniform Rules (Appendix F to COTIF 1999)

Uniform Technical Prescriptions (UTP) applicable to Vehicle Numbers and linked alphabetical marking on the bodywork:

THE RAILWAY VEHICLE MARKING - (UTP MARKING)

These regulations have been developed in accordance with the provisions of APTU, in particular Article 8, in the version as amended by the OTIF Revision Committee in 2009, which entered into force on 1 December 2010. For definitions and terms, see also Article 2 of ATMF (Appendix G) and Article 2 of APTU (Appendix F), both Appendices to the 1999 version of the COTIF Convention as applicable since 1 December 2010. Footnotes include both explanatory information (which is not part of the regulations), and references to other regulations.

Explanatory note:

The texts of this UTP which appear across two columns are identical to corresponding texts of the European Union regulations. Texts which appear in two columns differ; the left-hand column contains the UTP regulations, the right-hand column shows the text in the corresponding EU regulations. The text in the right-hand column is for information only and is not part of the OTIF regulations.

0. EQUIVALENCE AND TRANSITIONAL PROVISIONS

This UTP does not follow the standard structure for UTPs as referred to in APTU Article 8 §4. Instead:

- Sections 1 to 6 of this UTP are equivalent to Appendix P of OPE TSI (Annex I of Decision 2012/757/EU).
- Sections 7 to 18 are equivalent to Appendix 6 of EU NVR Specification (Decision 2007/756/EC as last amended by Decision 2012/757/EU).
- The tables associated with standard numerical markings of wagons, as described in section 14, are published on the ERA website.
- The tables and detailed information provided in sections 15 to 18 are

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equivalent to the documents which were published on the ERA website at the time of adoption of this specification.

In addition to these specifications, the UTPs applicable to vehicles include voluntary and mandatory specifications related to external markings, such as:

UTP WAG sections: 4.2.2.2, 4.2.4.3.2.2, 7.1.2 and appendix C

UTP LOC&PAS sections: 4.2.2.6.

1. GENERAL PROVISIONS ON THE VEHICLE NUMBER

The

Unique Vehicle Number

European Vehicle Number

shall be changed when it does not reflect the interoperability capability or technical characteristics according to this Appendix due to technical modifications of the vehicle. Such technical modifications may require a new

admission to operation (to international traffic) as defined in Articles 3 and 4 of ATMF (Appendix G to the Convention).

2. GENERAL ARRANGEMENTS FOR EXTERNAL MARKINGS

The capital letters and figures making up the marking inscriptions shall be at least 80 mm in height, in a sans serif font type of correspondence quality. A smaller height may only be used where there is no option but to place the marking on the sole bars.

The marking is put not higher than 2 metres above rail level.

The keeper can add, in letters of larger size than the

¹ The vehicle marking specifications apply to the scope of application of Appendix P of the TSI for COMMISSION DECISION 2012/757/EU of 14 November 2012 concerning the technical specification for interoperability relating to the 'operation and traffic management' subsystem of the rail system in the European Union and amending Decision 2007/756/EC.

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Unique Vehicle Number (EVN)

European Vehicle Number

an own number marking (consisting generally of digits of the serial number supplemented by alphabetical coding) useful in operations. The place where the own number is marked is left to the choice of the keeper; however it must always be possible to identify easily the EVN from the keeper's own number marking.

3. WAGONS

The marking shall be inscribed on the wagon bodywork in the following manner:

23	TEN	31	TEN	33	TEN
80	<u>D</u> -RFC	80	<u>D</u> -DB	84	<u>NL</u> -ACTS
7369	553-4	0691 2	235-2	479	96 100-8
Zcs		Tanoo	S	Slp	SS

Where in the examples

D and NL stand for the registering Member State as set out in

part 10 of this document.

NVR-decision 2007/756/EC, Appendix 6, part 4.

RFC, DB and ACTS stand for the keeper marking as set out in

part 8 of this document.	NVR-decision 2007/756/EC, Appendix 6, part 1.

For wagons whose bodywork does not offer a large enough area for this type of arrangement, particularly in the case of flat wagons, the marking shall be arranged as follows:

0187 3320 644-7

TEN <u>F</u>-SNCF Ks

When one or more index letters with a national definition are inscribed on a wagon, this national marking must be shown after the international letter marking and separated from it by a hyphen as follows:

0187 3320 644-7

TEN <u>F</u>-SNCF Ks-xy

4. COACHES AND HAULED PASSENGER STOCK

The number shall be applied to each sidewall of the vehicle in the following manner:

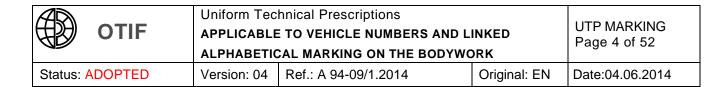
<u>F-SNCF</u> 61 87 $\frac{20 - 72\ 021}{B^{10}\ tu} - 7$

The marking of the country in which the vehicle is registered and of the technical characteristics are printed directly in front of, behind or under the

Unique Vehicle Number.

European Vehicle Number.

In case of coaches with driver's cabin, the



Unique Vehicle Number

Unique Vehicle Number.

European Vehicle Number

is also written inside the cabin.

5. LOCOMOTIVES, POWER CARS AND SPECIAL VEHICLES

The

European Vehicle Number.

must be marked on each sidewall of the tractive stock in the following manner:

92 10 1108 062-6

The

Unique Vehicle Number

European Vehicle Number

is also written inside each cabin of the tractive rolling stock.

6. **ALPHABETICAL** MARKING OF THE **INTEROPERABILITY CAPABILITY**

The marking "TEN" may be inscribed on a vehicle² only when it:

- fully³ complies with all relevant 1) UTPs (and RID if applicable) in the versions in force at the time⁴ of its technical admission, and which is admitted in all OTIF Contracting States⁵ in accordance with ATMF Article 6 § 3.
 - or
- 2) is subject to ATMF Article 3a § 1 (i.e. authorised according to Articles 22(1) and 23(1) of EU Directive 2008/57/EC).

'TEN': Vehicle which:

- a) complies with all relevant TSIs which are in force at the moment of placing in service and has been authorised to be placed in service according to Article 22(1) of Directive 2008/57/EC, and
- b) is provided with an authorisation valid in all Member States in accordance with Article 23(1) of Directive 2008/57/EC.

 $^{^{2}}$ Additional marking may be affixed to wagons in accordance with the provisions set out in section 5 of Appendix C to the UTP WAG.

³ If the UTP contains "open points" relating to the vehicles compatibility with infrastructure or if the vehicle is subject to a derogation or a specific case or not fully UTP compliant, it shall be admitted according to ATMF Article 6 § 4; instead of TEN, it will need the grid marking to indicate the States which have admitted the vehicle.

⁴ The date of admission is the date on which the certificate is issued.

⁵ A Contracting State is an OTIF Member State that applies APTU and ATMF

G:\Technik\CTE\CTE07_2014_06\Documents\4_Documents as adopted at CTE 7\EN\A 94-09_1_2014_e_adopted_UTP MARKING.doc

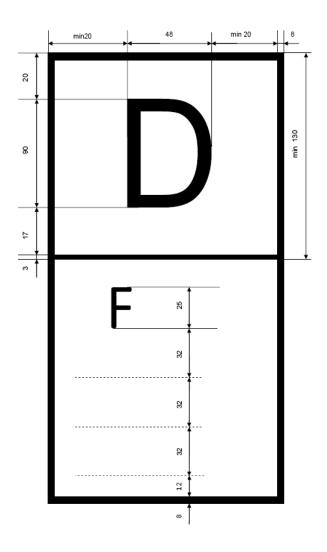
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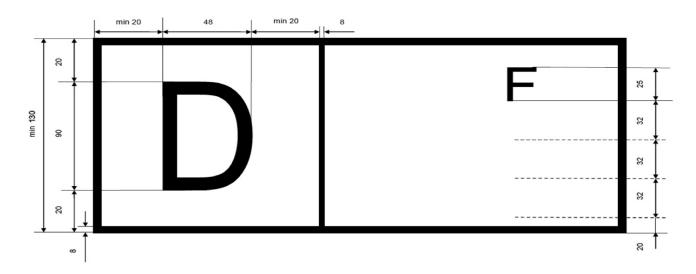
'PPV/PPW': Vehicle which complies with PPV/PPW or PGW agreement (inside OSJD States). (original: PPV/PPW: ППВ (Правила пользования вагонами в международном сообщении); PGW: Правила Пользования Грузовыми Вагонами).

Vehicles which are not

venieres which are not			
eligible for a "TEN" marking	authorised to be placed in service in all Member States in accordance with Article 23(1) of Directive 2008/57/EC		
need a marking indicating the			
Contracting	Member		
States where the vehicle is			
admitted to operation.	authorised to be placed in service.		
This marking shall be according to one of the	e following drawings, where D stands for the		
Contracting	Member		
State who has granted			
the first admission	the first authorisation		
(in the given example, Germany) and F stand	s for the second authorising		
Contracting State	MS		
(in the given example, France). The			
Country codes shall be in accordance with part 10 of this document.	MS are codified in accordance with Commission Decision 2007/756/EC, Appendix 6, part 4.		

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7. VEHICLE IDENTIFICATION

NVR SPECIFICATION: APPENDIX 6 PART '0' – VEHICLE IDENTIFICATION

General remarks

This section describes the Unique Vehicle	This appendix describes the European Vehicle
Number (EVN)	Number

and linked marking applied in a visible manner on the vehicle to identify it uniquely and in a permanent manner during operation. It does not describe other numbers or markings eventually engraved or fixed in a permanent manner on the chassis or the main components of the vehicle during its construction.

Unique

European

Vehicle number and linked abbreviations

Each railway vehicle receives a number consisting of 12 figures

[called Unique Vehicle Number (EVN)]

[called European Vehicle Number (EVN)]

with the following structure :

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Rolling stock group	Interoperability capability and vehicle type [2 figures]	Country in which the vehicle is registered [2 figures]	Technical characteristics [4 figures]	Serial number [3 figures]	Check digit [1 figure]
Wagons	00 to 09 10 to 19 20 to 29 30 to 39 40 to 49 80 to 89 [details in section ⁶ 11]		0000 to 9999 [details in section 14]	000 to 999	
Hauled passenger vehicles	50 to 59 60 to 69 70 to 79 [details in section 12]	01 to 99 [details in section 10]	0000 to 9999 [details in section 15]	000 to 999	0 to 9 [details in section. 9]
Tractive rolling stock and units in a trainset in fixed or pre-defined formation	90 to 99 [details in section 13]	-	0000000 to 8999 [the meaning of these figu by the Member States, e bilateral or multilateral	ures is defined ventually by	
Special vehicles			9000 to 9999 [details in section 16]	000 to 999	

In a given country, the 7 digits of technical characteristics and serial number are sufficient to identify uniquely a vehicle inside the groups of hauled passenger vehicles and special vehicles⁷.

Alphabetical markings complete the number:

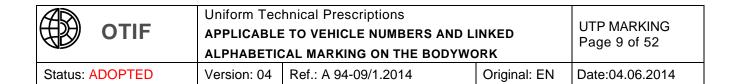
•	abbreviation of the country in which the vehicle is regis	stered
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	(details in section 10 of this UTP)	(details in part 4 of NVR-Decision 756/2007/EC)
•	Vehicle Keeper Marking	
	(details in section 8 of this UTP)	(details in part 1 of NVR-Decision 756/2007/EC)
•	abbreviations of the technical character	istics
	(details for the wagons in section 17 and for the hauled passenger vehicles in section 18 of this UTP)	(details in part 12 of NVR-Decision 756/2007/EC for the wagons, part 13 of NVR-Decision 756/2007/EC for the hauled passenger

μ ıg vehicles).

⁶ The word 'section' is referred to as 'part' in the corresponding EU regulation.

⁷ For special vehicles, the number has to be unique in a given country with the first digit and the 5 last digits of the technical characteristics and serial number.



The

Unique Vehicle Number (EVN)

European Vehicle Number

shall be changed when it does not reflect the interoperability capability or technical characteristics according to this Appendix due to technical modifications of the vehicle. Such technical modifications may require a new

Admission to operation (to international traffic) as defined in Articles 3 and 4 of ATMF (Appendix G to the Convention).

placing in service according to Articles 20 to 25 of Directive 2008/57/EC.

8. VEHICLE KEEPER MARKING

NVR SPECIFICATION: APPENDIX 6 PART 1 – VEHICLE KEEPER MARKING

Definition of the Vehicle Keeper Marking (VKM)

A Vehicle Keeper Marking (VKM) is an alphabetic code, consisting of 2 to 5 letters⁸. A VKM is inscribed on each rail vehicle, near the

Unique Vehicle Number (EVN).

European Vehicle Number.

The VKM identifies the Vehicle Keeper as registered in a National Vehicle Register.

A VKM is unique and valid in all countries covered by

this UTP

TSI OPE and NVR Decision

and all countries that enter into an agreement that involves the application of the system of vehicle numbering and VKM as described in

this UTP.

TSI OPE and NVR Decision.

Format of the Vehicle Keeper Marking

The VKM is representation of the full name or abbreviation of the vehicle keeper, if possible in a recognisable manner. All 26 letters of the Latina alphabet may be used. The letters in the VKM are written in capitals. Letters that do not stand for first letters of words in the keeper's name may be written in lower case. For checking uniqueness, the letters written in lower case will be taken as written in capitals.

Letters may contain diacritical signs⁹. Diacritical signs used by these letters are ignored for checking uniqueness.

⁸ For NMBS/SNCB, the use of an encircled single letter B can be continued.

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For vehicles of keepers that reside in a country that does not use the Latin alphabet, a translation of the VKM in its own alphabet may be applied behind the VKM separated from it by a slash-sign ('/'). This translated VKM is disregarded for data-processing purposes.

Provisions about allocation of Vehicle Keeper Markings

A vehicle keeper can be issued more than one VKM, in case:

- (1) the vehicle keeper has a formal name in more than one language;
- (2) a vehicle keeper has good cause to distinguish between separate vehicle fleets within his organisation.

A single VKM can be issued for a group of companies:

- (3) that belong to single corporate structure (e.g. holding structure);
- (4) that belong to a single corporate structure that has appointed and mandated one organisation within this structure to handle all issues on behalf of all others;
- (5) that has mandated a separate, single legal entity for handling all issues on their behalf, in which event the legal entity is the keeper.

Register of Vehicle Keeper Markings and procedure for allocation

The register of VKM is public and updated on a real time basis.

An application for a VKM is filed with the applicant's competent national authority and forwarded to the

Secretariat.

A VKM can be used only after publication by the

Secretariat.

ERA.

ERA.

The holder of a VKM must inform the competent national authority when he ends the use of a VKM, and the competent national authority will forward the information to the

1

Secretariat.	ERA.
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A VKM will then be revoked once the keeper has proved that the marking has been changed on all vehicles concerned. It will not be reissued for 10 years, unless it is reissued to the original holder or at his request to another holder.

A VKM can be transferred to another holder, which is the legal successor to the original holder. A VKM stays valid when the VKM's holder changes his name to a name that does not bear resemblance to the VKM.

In case of a change of keeper which entails a change of VKM, the vehicles concerned must be marked with the new VKM within three months from the date of registration of the change of

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⁹ Diacritical marks are 'accent-signs', such as in À, Ç, Ö, Č, Ž, Å etc. Special letters such as Ø and Æ will be represented by a single letter; in tests for uniqueness Ø is treated as O and Æ as A.

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keeper in the National Vehicle Register. In case of inconsistency between the VKM marked on the vehicle and the data registered in the NVR, the NVR-registration supersedes.

> NVR Specification: Appendix 6 Part 2 - Not used

9. NVR Specification: Appendix 6 RULES THE FOR Part 3 Rules for THE _ the OF DETERMINATION determination of the check-digit CHECK-DIGIT (DIGIT 12) (digit 12)

The check-digit is determined in the following manner:

- the digits in the even positions of the basic number (counting from the right) are taken at their own decimal value;
- the digits in the odd positions of the basic number (counting from the right) are multiplied by 2;
- the sum formed by the digits in even position and by all the digits which constitute the partial products obtained from the odd positions is then established;
- the units digit of this sum is retained;
- the complement required to bring the units digit to 10 forms the check-digit; should this units digit be nought, then the check-digit will also be nought.

Examples

1 -	Let the basic number be	3	3	8	4	4	7	9	6	1	0	0	
	Multiplication factor	2	1	2	1	2	1	2	1	2	1	2	
		6	3	16	4	8	7	18	6	2	0	0	
	Sum: $6 + 3 + 1 + 6 + 4 + 8 + 7 + 1 + 8 + 6 + 2 + 0 + 0 = 52$												

The units digit of this sum is 2.

The check-digit number will therefore be 8 and the basic number thus becomes the registration number 33 84 4796 100 - 8.

2 -Let the basic

Let the basic number be	3	1	5	1	3	3	2	0	1	9	8
Multiplication factor	2	1	2	1	2	1	2	1	2	1	2
-	6	1	10	1	6	3	4	0	2	9	16
Sum: $6 + 1 + 1 + 0 + 1 + 6 + 3 + 4 + 0 + 2 + 9 + 1 + 6 = 40$											

The units digit of this sum is 0.

The check-digit number will therefore be 0 and the basic number thus becomes the registration number 31 51 3320 198 – 0.



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NVR Specification: Appendix 6 10. **CODING OF THE COUNTRIES** Part 4 - Coding of the countries IN WHICH THE VEHICLES which the vehicles **ARE REGISTERED (DIGITS 3-4** in are (digits registered **AND ABBREVIATION)** 3-4 and abbreviation)

			The Information rela		
Countries	Alphabetical	Numerical	given for information	purposes only	/
	country	country			
	code ¹	code			-
Albania	AL	41	Countries	Alphabetical	
Algeria	DZ	92		country code ¹	
Armenia	AM	58	Albania	AL	-
Austria	A	81			-
Azerbaijan	AZ	57	Algeria	DZ	-
Belarus	BY	21	Armenia	AM	-
Belgium	В	88	Austria	A	⊢
Bosnia-	BIH	50	Azerbaijan	AZ	_
Herzegovina ¹⁰	2	00	Belarus	BY	
8		44	Belgium	B	
Bulgaria	BG	52	Bosnia-Herzegovina	BIH	L
China	RC	33	Bulgaria	BG	L
Croatia	HR	78	China	RC	L
Cyprus	CY	-	Croatia	HR	L
Czech Republic	CZ	54	Cuba	CU ¹	
Denmark	DK	86	Cyprus	CY	
Egypt	ET	90	Czech Republic	CZ	
<u>Estonia</u>	EST	26	Denmark	DK	
Finland	FIN	10	Egypt	ET	
France	F	87	Estonia	EST	L
Georgia	GE	28	Finland	FIN	
Germany	D	80	France	F	
2	GR	73	Georgia	GE	
Greece	H	55	Germany	D	
Hungary			Greece	GR	
Iran	IR IRO ¹	96	Hungary	Н	
Iraq Incland	IRQ ¹	99	Iran	IR	
Ireland	IRL	60	Iraq	IRQ ¹	
Israel	IL	95	Ireland	IRL	
Italy	I	83	Israel	IL	Γ
Japan	J	42	Italy	Ι	
Kazakhstan	KZ	27	Japan	J	
Kyrgyzstan	KS	59	Kazakhstan	KZ	Γ
Latvia	LV	25			<u>ــــ</u>

The Information relating to third countries is

¹⁰ Bosnia-Herzegovina uses two railway codes: 50 and 44.

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Lebanon	RL	98	Kyrgyzstan	KS	59
Liechtenstein	FL	-	Latvia	LV	25
Lithuania	LT	24	Lebanon	RL	98
Luxembourg	L	82	Liechtenstein	FL	
Macedonia	MK	65	Lithuania	LT	24
Malta	М	-	Luxembourg	L	82
Moldova	MD^1	23	Macedonia	MK	65
Monaco	MC	-	Malta	М	
Mongolia	MGL	31	Moldova	MD^1	23
Montenegro	MNE	62	Monaco	MC	
Morocco	MA	93	Mongolia	MGL	31
Netherlands	NL	84	Montenegro	MNE	62
North Korea	PRK^{1}	30	Morocco	MA	93
Norway	Ν	76	Netherlands	NL	84
Poland	PL	51	North Korea	PRK^{1}	30
Portugal	Р	94	Norway	Ν	76
Romania	RO	53	Poland	PL	51
Russia	RUS	20	Portugal	Р	94
Serbia	SRB	72	Romania	RO	53
Slovakia	SK	56	Russia	RUS	20
Slovenia	SLO	79	Serbia	SRB	72
South Korea	ROK	61	Slovakia	SK	56
Spain	E	71	Slovenia	SLO	79
Sweden	S	74	South Korea	ROK	61
Switzerland	CH	85	Spain	E	71
Syria	SYR	97	Sweden	S	74
Tajikistan	TJ	66	Switzerland	СН	85
Tunisia	TN	91	Syria	SYR	97
Turkey	TR	75	Tajikistan	TJ	66
Turkmenistan	ТМ	67	Tunisia	TN	91
Ukraine	UA	22	Turkey	TR	75
United Kingdom	GB	70	Turkmenistan	ТМ	67
Uzbekistan	UZ	29	Ukraine	UA	22
Vietnam	VN^1	32	United Kingdom	GB	70
			Uzbekistan	UZ	29
	•	•	Vietnam	VN ¹	32

(1) According to the alphabetical coding system described in Appendix 4 to the 1949 convention and Article 45(4) of the 1968 convention on road traffic.

NVR Specification: Appendix 6 Part 5 – Not used

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11. INTEROPERABILITY
USED FOR WAGONS (DIGITS 1-2)CODES
NVR Specification: Appendix 6 Part 6 –
Interoperability codes used for wagons
(digits 1-2)

	1 st digit ↓	2^{nd} digit \rightarrow	0	1	2	3	4	5	6	7	8	9	2^{nd} digit \leftarrow	1 st digit ↓						
		Track Gauge	fixed or variable	fixed	variable	fixed	variable	fixed	variable	fixed	variable	fixed or variable	Track Gauge							
Wagons conform to the present UTP/TSI WAG	0	with axles		Wagons	,(b)			not to b		PPV/PPW wagons	with axles	0								
	1	with bogies	Not to be used	wagons	,	not to be used (^d)						(variable gauge)	with bogies	1						
including 7.1.2 and all conditions of	2	with axles	Not to be used		wagons ^(b)								with axles	2						
Appendix C ^(a)	3	with bogies				wagons						(fixed gauge)	with bogies	3						
	4	with axles (c)																Wagons with special numbering for technical	with axles ^(c)	4
Other wagons	8	with bogies ^(c)	maintenance related wagons				Other wag	gons				characteristics not placed in service inside EU or a COTIF Contracting State	with bogies ^(c)	8						
	↑ 1 st digit	\rightarrow 2 nd digit	0	1	2	3	4	5	6	7	8	9	$ 2^{\rm nd} {\rm digit}$	↑ 1 st digit						

(d) Except for wagons in category I (temperature-controlled wagons), not to be used for new vehicles placed in service.

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 12. INTERNATIONAL TRAFFIC ABILITY CODES FOR HAULED PASSENGER VEHICLES (DIGITS 1-2)
 12. INTERNATIONAL TRAFFIC NVR Specification: Appendix 6 Part 7 – International traffic ability codes for hauled passenger vehicles (digits 1-2)

	Domestic traffic	TEN	$\mathcal{J}^{(a)}$ and/or COTIF ^(b) a	COTIF ^(b) and/or PPV/PPW Domestic traffic traffic by special agreement COTIF ^(b)			PPV/PPW			
$ \begin{array}{c} \rightarrow \\ 2^{nd} \text{ digit} \\ 1^{st} \text{ digit} \\ \downarrow \end{array} $	0	1	2	3	4	5	6	7	8	9
5	Vehicles for domestic traffic	Fixed-gauge non- air-conditioned vehicles (including car-carrying wagons)	Gauge-adjustible (1435/1520) non- air-conditioned vehicles	Not to be used	Gauge- adjustible (1435/1668) non-air- conditioned vehicles	Historical vehicles	Not to be used ^(c)	Fixed-gauge vehicles	Gauge- adjustible (1435/1520) vabiales with	Gauge- adjustible (1435/1520) vehicles with gauge- adjustible axles
6	Service vehicles	Fixed-gauge air- conditioned vehicles	Gauge-adjustible (1435/1520) air- conditioned vehicles	Service vehicles	Gauge- adjustible (1435/1668)air- conditioned vehicles	Car-carrying wagons	Not to be used ^(c)	venicies	vehicles with change of bogies	
7	Air- conditioned and pressure tight vehicles	Not to be used	Not to be used	Pressure- tight fixed- gauge air- conditioned vehicles	Not to be used	Other vehicles	Not to be used	Not to be used	Not to be used	Not to be used

(a) Compliance with the applicable UTP/TSIs, see appendix P, part 5.

(b) Including vehicles, which according to existing regulations carry the digits defined in the present table. COTIF: vehicle compliant with COTIF regulation in force at the moment of placing in service

(c) Excepted for coaches with fixed gauge (56) and adjustable gauge (66) already in service, not to be used for new vehicles

o	TIF	APPLICABLE	hnical Prescription TO VEHICLE NUM CAL MARKING ON	IBERS AND L		UTP MARKING Page 16 of 52
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13.			AND UNITS	Part 8 –	Types of	a: Appendix 6 tractive rolling a train set in

(digits 1-2)

PRE-DEFINED FORMATION

(digits 1-2)

fixed or pre-defined formation

The first digit is '9'.

If the second digit describes the type of tractive stock, following coding is mandatory:

Code	General vehicle type
0	Miscellaneous
1	Electric locomotive
2	Diesel locomotive
3	Electric multiple-unit set (high speed) [power car or trailer]
4	Electric multiple-unit set (except high speed) [power car or trailer]
5	Diesel multiple-unit set [power car or trailer]
6	Specialised trailer,
7	Electric shunting engine
8	Diesel shunting engine
9	Special vehicle

14.STANDARDNUMERICALNVR Specification: Appendix 6MARKINGOFWAGONSPart9-Standard(DIGITS 5 TO 8)marking of wagons (digits 5 to 8)

Digits 5 to 8 indicate the main technical characteristics of the wagon. A list with numbers is published on the ERA website (www.era.europa.eu).

An application for a new code is filed with the registering entity

(as referred to in the National Vehicle Register specifications A 94-20/2.2012) and sent to ERA or the Secretary General. A new code can be used only after publication by ERA¹¹.

(as referred to in Decision 2007/756/EC) and sent to the ERA. A new code can be used only after publication by the ERA.

¹¹ For EU Member States the applications should be sent to ERA.

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15. CODES FOR THE TECHNICA CHARACTERISTICS OF THE HAULED PASSENGER STOCE (DIGITS 5-6)

An application for a new code is filed with the registering entity

(as referred to in the National Vehicle Register specifications A

94-20/2.2012) and sent to ERA or the Secretary General. A new

TECHNICALNVR Specification: Appendix 6 Part 10 – Codes**OFTHE**for the technical characteristics of the hauled**ERSTOCK**passenger stock (digits 5-6)

Part 10 is published on the ERA website (<u>www.era.europa.eu</u>).

An application for a new code is filed with the registering entity (as referred to in Decision 2007/756/EC) and sent to the ERA. A new code can be used only after publication by the ERA.

code can be used only after publication by ERA¹². The tables in this section are copied from the 'Part 10" document as published on the ERA website¹³. The "Part 10" document consists of two tables:

- Codes for the technical characteristics of the hauled passenger stock (digits 5-6)
- Codes for the general characteristics of the hauled passenger stock (digits 7-8)

	6th digit 5th digit	0	1	2	3	4
Reserved	0	Reserved	Reserved	Reserved	Reserved	Reserved
Vehicles with 1 st class seats	1	10 side-corridor compartments or equivalent open-saloon space with centre aisle	≥ 11 side-corridor compartments or equivalent open-saloon space with centre aisle	Reserved	Reserved	Two or three axles
Vehicles with 2 nd class seats	2	10 side-corridor compartments or equivalent open-saloon space with centre aisle	11 side-corridor compartments or equivalent open-saloon space with centre aisle	≥ 12 side-corridor compartments or equivalent open-saloon space with centre aisle	Three axles	Two axles
Vehicles with 1st	3	10 side-corridor compartments or	11 side-corridor compartments or	\geq 12 side-corridor compartments	Reserved	Two or three axles

¹² For EU Member States the applications should be sent to ERA.

¹³ Table equivalent to the one published on ERA website on 18.03.2014.

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or 1 st /2 nd class seats		equivalent open-saloon space with centre aisle	equivalent open-saloon space with centre aisle	or equivalent open-saloon space with centre aisle		
1 st or 1 st /2 nd class couchette cars	4	10 1 st /2 nd class compartments	Reserved	Reserved	Reserved	\leq 9 1 st /2 nd class compartments
2 nd class couchette cars	5	10 compartments	11 compartments	\geq 12 compartments	Reserved	Reserved
Reserved	6	Reserved	Reserved Reserved Reserved		Reserved	Reserved
Sleeping cars	7	10 compartments	11 compartments	12 compartments	< 10 2 nd class compartments	< 10 1 st class compartments
Vehicles of	8	Driving trailer with seats, all classes, with or without luggage compartment, with driving cab for reversible working	Vehicles with 1st or 1 st /2 nd class seats with luggage or mail compartment	Vehicles with 2 nd class seats with luggage or mail compartment	Reserved	Vehicles with seats, all classes with specially-fitted areas, e.g. children's play area
special design and vans	9	Mail vans	Luggage vans with mail compartment	Luggage vans	Luggage vans and two or three-axle 2 nd class vehicles with seats, with luggage or mail compartment	Side-corridor luggage vans, with or without compartment under customs seal

Note: Fractions of a compartment are not considered. The equivalent accommodation in open saloon cars with centre aisle is obtained by dividing the number of available seats by 6, 8 or 10 depending on the construction of the vehicle.

	6th digit 5th digit	5	6	7	8	9
Reserved	0	Reserved	Reserved	Reserved	Reserved	Reserved
Vehicles with 1 st class seats	1	Reserved	Double-deck coaches	≥ 7 side-corridor compartments or equivalent open-saloon space with centre aisle	8 side-corridor compartments or equivalent open-saloon space with centre aisle	9 side-corridor compartments or equivalent open-saloon space with centre aisle
Vehicles with 2 nd class seats	2	Only for OSJD, double-deck coaches	Double-deck coaches	Reserved	≥ 8 side-corridor compartments or equivalent open-saloon space with centre aisle	9 side-corridor compartments or equivalent open-saloon space with centre aisle
Vehicles with 1 st or 1 st /2 nd class seats	3	Reserved	Double-deck coaches	Reserved	≥ 8 side-corridor compartments or equivalent open-saloon space with centre aisle	9 side-corridor compartments or equivalent open-saloon space with centre aisle
1 st or 1 st /2 nd class couchette cars	4	Reserved	Reserved	Reserved	Reserved	\leq 9 1 st class compartments
2 nd class couchette cars	5	Reserved	Reserved	Reserved	Reserved	\leq 9 compartments
Reserved	6	Reserved	Reserved	Reserved	Reserved	Reserved
Sleeping cars	7	> 12 compartments	Reserved	Reserved	Reserved	Reserved
Vehicles of special design and vans	8	Coaches with seats and couchette cars, all classes, with bar or buffet area	Double-deck driving coach with seats, all classes, with or without luggage compartment, with driving cab for reversible working	Dining cars or coaches with bar or buffet area, with luggage compartment	Dining cars	Other special coaches (conference, disco, bar, cinema, video, ambulance coaches)

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9 Two or three-axle luggage vans with mai compartment	Other vans	Two or three-axle car-carrying wagons	Car-carrying wagons	Service vehicles
--	------------	---------------------------------------	---------------------	------------------

Note: Fractions of a compartment are not considered. The equivalent accommodation in open saloon cars with centre aisle is obtained by dividing the number of available seats by 6, 8 or 10 depending on the construction of the vehicle.

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NVR Specification: Appendix 6 Part 10 – Codes for the general characteristics of the hauled passenger stock (digits 7-8)

Energy supply Maximum speed	8th digit 7th digit	0	1	2	3	4	5	6	7	8	9
	0	All tensions*	Reserved	3000 V~ + 3000 V=	1000 V~ *	Reserved	1500 V~	Other tensions than 1000 V, 1500 V, 3000 V	1500 V~ + 1500 V=	3000 V=	Reserved
< 120 km/h	1	All tensions* + Steam ¹	1000 V~ + Steam ¹	1000 V~ + Steam ¹	1000 V~ + Steam ¹	1000 V~ + Steam ¹	1000 V~ + Steam ¹	Reserved	$1500 V \sim$ + 1500 V= + Steam ¹	3000 V = + Steam ¹	3000 V= + Steam1
	2	Steam ¹	Steam ¹	3000 V~ + 3000 V= + Steam ¹	Steam ¹	3000 V~ + 3000 V= + Steam ¹	Steam ¹	$3000 V \sim$ + 3000 V= 1500 V ~ + Steam ¹	1500 V~ + Steam ¹	1500 V~ + Steam ¹	A^1
	3	All tensions	Reserved	1000 V~ + 3000 V=	1000 V~ * ¹	1000 V~ * ¹	1000 V~	1000 V~ + 1500 V~ + 1500 V=	1500 V~ + 1500 V=	3000 V=	3000 V=
121 to 140 km/h	4	All tensions * + Steam ¹	All tensions $+$ Steam ¹	All tensions + Steam ¹	1000 V~ * ¹ + Steam ¹	1500 V~ + 1500 V=	1000 V~ + Steam1	3000 V~ + 3000 V=	$1500 V \sim$ + 1500 V= + Steam ¹	3000 V = + Steam ¹	Reserved
	5	All tensions * + Steam ¹	All tensions $+$ Steam ¹	All tensions $+$ Steam ¹	1000 V~ + Steam ¹	Reserved	1500 V~ + Steam ¹	Other tensions than 1000 V, 1500 V, 3000 V	1500 V~ + 1500 V= + Steam1	Reserved	Reserved
	6	Steam ¹	Reserved	3000 V~ + 3000 V=	Reserved	3000 V~ + 3000 V=	Reserved	Steam ¹	Reserved	Reserved	A^1
141 to 160 km/h	7	All tensions *	All tensions	$1500 \text{ V} \sim ^{1}$ + 3000 V= ¹ All tensions ²	1000 V~ *	1500 V~ + 1500 V=	1000 V~	1500 V~	1500 V~ + 1500 V=	3000 V=	3000 V=
141 to 160 km/h	8	All tensions * + Steam ¹	All tensions $+$ Steam ¹	3000 V~ + 3000 V=	Reserved	All tensions * $+$ Steam ¹	1000 V~ + Steam ¹	3000 V~ + 3000 V=	Other tensions than 1000 V, 1500 V, 3000 V	All tensions * $+$ Steam ¹	$\begin{array}{c} A^1 \\ G^2 \end{array}$
> 160 km/h	9	All tensions * ²	All tensions	All tensions + Steam ¹	1000 V~ + 1500 V~	1000 V~	1000 V~	Reserved	1500 V~ + 1500 V=	3000 V=	A^1 , A^2 , G^2

Notes:

¹ Only for domestic traffic vehicles

Only for vehicles able to international traffic

All tensions Single phase alternating current 1000 V 51 to 15 Hz, single phase alternating current 1500 V 50 Hz, direct current 1500 V, direct current 3000 V. Can include single phase alternating current 3000 V 50 Hz

* For certain vehicles with 1000V single phase alternating current, only one frequency, either 16 2/3 or 50 Hz, is permitted

A Autonomous heating, without train bus electricity supply line

G Vehicles with train bus electricity supply line for all voltages, but requiring a generator van to supply air-conditioning

Steam Steam heating only. If tensions are written, the code is also available for vehicles without steam heating.

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(45A)	OTIF	Uniform Technical Prescription			UTP MARKING
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16.		OR THE TECHNICAL		R Specification	. .
	CHARACT	ERISTICS OF THE	Part	11 - Codes fo	r the technical
	SPECIAL V	VEHICLES (DIGITS 6-	chara	acteristics of	the special
	8)		vehi	cles	
			(digi	ts 6-8)	
	registering entit National Vehicl 20/2.2012) and General. A new publication by F The tables in this 11" document as p The "Part 11" doc • Authoriss (digit 6)	section are copied from the 'Part published on the ERA website ¹⁵ . rument consists of two tables: ed speed for special vehicles I sub-type of special vehicle	(www An ap registe 2007/7	11 is published on era.europa.eu). plication for a new c ering entity (as refe 756/EC) and sent to tl used only after publi	ode is filed with the red to in Decision the ERA. A new code
Γ	Authorised spe	ed for special vehicles (digit 6)		Self-propelled tra	velling speed

	Classification		Self-pro	pelled travellin	g speed
			\geq 100 km/h	< 100 km/h	0 km/h
	V > 100 1 /h	Self-propelled	1	2	
Can be put into a	$V \ge 100 \text{ km/h}$	Non self-propelled			3
train	V < 100 km/h	Self-propelled		4	
	and/or restrictions ^a	Non self-propelled			5
Cannot ba	put the a train	Self-propelled		6	
Califiot be	put life a train	Non self-propelled			7
	elf-propelled rail/road			8	
t	than can be put into a t	rain ^b		0	
	elf-propelled rail/road			9	
th	an cannot be put into a	train ^b		7	
Non	self-propelled rail/road	l vehicle ^b			0

a By restriction is meant a special position in a train (e.g. at the rear), an obligatory protection wagon, etc.

b Special conditions concerning inclusion in a train must be complied with.

¹⁴ For EU Member States the applications should be sent to ERA.
¹⁵ Table equivalent to the one published on ERA website on 20.01.2014.

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Type and sub-type of special vehicle (digits 7-8)

7th digit	8th digit	Vehicles / machines
	1	Track laying and renewal train
	2	Switches and crossing laying equipment
	3	Track rehabilitation train
1 Infrastructure	4	Ballast cleaning machine
and	5	Earthworks machine
superstructure	6	Earthworks machine
	7	
	8	
	9	Rail-mounted crane (excl. re-railing)
	0	Other or general
	1	High capacity plain track tamping machine
	2	Other plain track tamping machines
	3	Tamping machine with stabilisation
2	4	Tamping machine for switches and crossings
Track	5	Ballast plough
	6	Stabilisation machine
	7	Grinding and welding machine
	8	Multi-purpose machine
	9	Track inspection car
	0	Other
_	1	Multi-purpose machine
	2	Rolling and unrolling machine
	3	Mast installation machine
_	4	Drum carrier machine
3	5	Overhead line tensioning machine
Overhead line	6	Machine with elevating work
_	-	platform and machine with scaffold
_	7	Cleaning train
_	8	Greasing train
-	9	Overhead line inspection car
	0	Other
Ļ	1	Deck laying machine
Ļ	2	Bridge inspection platform
4	3	Tunnel inspection platform
Structures	4	Gas purification machine
Ļ	5	Ventilation machine
	6	Machine with elevating work platform or with scaffold



Uniform Technical Prescriptions APPLICABLE TO VEHICLE NUMBERS AND LINKED ALPHABETICAL MARKING ON THE BODYWORK

Status: ADOPTED

OTIF

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Date:04.06.2014

7th digit	8th digit	Vehicles / machines
	7	Tunnel lighting machine
	8	
	9	
	0	Other
	1	Rail loading/unloading and transport machine
	2	Logding/unlogding and transport
_	3	Loading/unloading and transport machine for ballast, gravel, etc.
5 Loading,	4	
unloading and	5	Sleeper loading/unloading and
various	6	transport machine
transport	7	
	8	Loading/unloading and transport machine for switchgear, etc.
	9	Loading/unloading and transport machine for other materials
	0	Other
	1	Earthworks recording car
	2	Track recording car
	3	Overhead line recording car
	4	Gauge recording car
6	5	Signalling recording car
Measuring	6	Telecommunications recording car
_	7	
	8	
	9	
	0	Other
_	1	Emergency crane
_	2	Emergency haulage car
_	3 4	Emergency tunnel train
		Emergency car
7	5	Fire car
Emergency	<u>6</u> 7	Sanitary vehicle
	8	Equipment car
-	<u> </u>	
	0	Other
	1	Tractive units
	2	
	3	Transport car (excl. 59)
•	4	Power car
8 Traction,	5	
transport,	6	Track car / powered car
energy, etc.	7	Concreting car
	8	
	9	
F	0	Other
	1	Self-propelled snow plough
9 -	2	Hauled snow plough
Environment –	3	Snow broom
	5	

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7th digit	8th digit	Vehicles / machines
	4	De-icing machine
	5	Weed-killing machine
	6	Rail cleaning machine
	7	
	8	
	9	
	0	Other
	1	Catagory 1 wil/read mashing
	2	Category 1 rail/road machine
	3	Catagory 2 mil/road mashing
	4	Category 2 rail/road machine
0	5	Catagory 2 mil/road mashing
Rail/road	6	Category 3 rail/road machine
	7	Catagory 4 mil/road mashing
	8	Category 4 rail/road machine
	9	
	0	Other

17. LETTER MARKING FOR WAGONS EXCLUDING ARTICULATED AND MULTIPLE WAGONS

An application for a new code is filed with the registering entity (as referred to in the National Vehicle Register specifications A 94-20/2.2012) and sent to ERA or the Secretary General. A new code can be used only after publication by ERA^{16} .

The tables in this section are copied from the 'Part 12" document as published on the ERA website¹⁷. The "Part 12" document consists of 10 tables:

- CATEGORY LETTER: **E** OPEN HIGH-SIDED WAGON
- CATEGORY LETTER: **F** OPEN HIGH-SIDED WAGON
- CATEGORY LETTER: **G** COVERED WAGON
- CATEGORY LETTER: **H** COVERED WAGON
- CATEGORY LETTER: I –

NVR Specification: Appendix 6 Part 12 — Letter marking for wagons excluding articulated and multiple wagons

Part 12 is published on the ERA website (<u>www.era.europa.eu</u>).

An application for a new code is filed with the registering entity (as referred to in Decision 2007/756/EC) and sent to the ERA. A new code can be used only after publication by the ERA.

¹⁶ For EU Member States the applications should be sent to ERA.

¹⁷ Table equivalent to the one published on ERA website on 20.01.2014.

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 WAGO CATEG WAGO CATEG WAGO CATEG AND O CATEG WAGO CATEG WAGO CATEG WAGO CATEG WAGO CATEG SIDED CATEG WAGO 	ORY LETTER: N ORY LETTER: N ORY LETTER: PEN HIGH-SID ORY LETTER: N ORY LETTER: N ORY LETTER: NS ORY LETTER: N ORY LETTER: N ORY LETTER: N ORY LETTER: N ORY LETTER: N (2 units) ORY LETTER: RATURE CON N (2 units) ORY LETTER: N (2 units)	K – 2-AXLE FLAT L – 2-AXLE FLAT O – MIXED FLAT ED WAGON R –FLAT BOGIES S –FLAT BOGIES T – WAGON F U - SPECIAL Z - TANK F - OPEN HIGH- (S) H - COVERED L - FLAT RATE AXLES (2 S - FLAT BOGIE T - WAGON F (2 units) U - SPECIAL		

DEFINITION OF THE CATEGORY AND INDEX LETTERS

1. Important notes

In the attached tables:

- the information given in meters refers to the inside length of the wagons (lu);
- the information given in tonnes (tu) corresponds to the highest load limit shown in the loading table for the wagon in question, this limit being determined in accordance with the procedures laid down.

2. Index letters with an international value common to all categories

q pipe for electric heating which can be supplied by all accepted currents

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qq pipe and installation for electric heating which can be supplied by all accepted currents

s wagons authorised to run under "s" conditions (see Annex B of Rolling Stock TSI / UTP WAG)
 ss wagons authorised to run under "ss" conditions (see Annex B of Rolling Stock TSI / UTP WAG)

3. Index letters with a national value

t, u, v, w, x, y, z

The value of these letters is defined by each

Contracting State.

Member State.

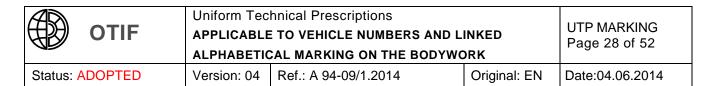
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CATEGORY LETTER: E - OPEN HIGH-SIDED WAGON

	of ordinary type,
	with side and end tipping, with flat floor
e wagon	with 2 axles: $lu \ge 7,70m$; $25t \le tu \le 30t$
	with 4 axles: $lu \ge 12m$; $50t \le tu \le 60t$
	with 6 axles or more: $lu \ge 12m$; $60t \le tu \le 75t$
а	with 4 axles
aa	with 6 axles or more
с	with floor traps ^a
	with 2 axles: tu < 20t
k	with 4 axles: $tu < 40t$
	with 6 axles or more: tu < 50t
	with 2 axles: $20t \le tu < 25t$
kk	with 4 axles: $40t \le tu < 50t$
	with 6 axles or more: $50t \le tu < 60t$
1	without side tipping
11	without floor traps ^b
	with 2 axles: lu < 7,70m
m	with 4 axles or more: lu < 12m
mm	with 4 axles or more: $lu > 12m^{b}$
	with 2 axles: $tu > 30t$
n	with 4 axles: $tu > 60t$
	with 6 axles or more: $tu > 75t$
0	without end tipping
	with station for brakeman ^b
	a aa c k k kk 1 11 11 m m m n

a This concept only applies to open high-sided wagons with a flat floor, and provided with a device enabling them to be used, either as ordinary wagons with a flat bottom, or for gravity unloading of certain goods by suitable positioning of the traps.

b Only applicable to wagons with gauge of 1520 mm.



CATEGORY LETTER: F - OPEN HIGH-SIDED WAGON

of special type, with 2 axles: $25t \le tu \le 30t$ with 3 axles: $25t \le tu \le 40t$ with 4 axles: $50t \le tu \le 40t$ with 4 axles: $50t \le tu \le 60t$ with 6 axles or more: $60t \le tu \le 75t$ awith 4 axles aabhigh capacity with axles (volume > $45m^3$) ccwith controlled gravity unloading, on both sides, alternately, at the top a ffsuitable for traffic with Great Britain
Reference wagonwith 3 axles: $25t \le tu \le 40t$ with 4 axles: $50t \le tu \le 60t$ with 6 axles or more: $60t \le tu \le 75t$ awith 4 axlesaawith 6 axles or morebhigh capacity with axles (volume > 45m ³)cwith controlled gravity unloading, on both sides, alternately, at the top accwith controlled gravity unloading, on both sides, alternately, at the bottom a
with 4 axles: $50t \le tu \le 60t$ with 6 axles or more: $60t \le tu \le 75t$ awith 4 axlesaawith 6 axles or morebhigh capacity with axles (volume > $45m^3$)cwith controlled gravity unloading, on both sides, alternately, at the top accwith controlled gravity unloading, on both sides, alternately, at the bottom a
with 6 axles or more: $60t \le tu \le 75t$ awith 4 axlesaawith 6 axles or morebhigh capacity with axles (volume > $45m^3$)cwith controlled gravity unloading, on both sides, alternately, at the top accwith controlled gravity unloading, on both sides, alternately, at the bottom a
a with 4 axles aa with 6 axles or more b high capacity with axles (volume > 45m ³) c with controlled gravity unloading, on both sides, alternately, at the top ^a cc with controlled gravity unloading, on both sides, alternately, at the bottom ^a
aa with 6 axles or more b high capacity with axles (volume > 45m ³) c with controlled gravity unloading, on both sides, alternately, at the top ^a cc with controlled gravity unloading, on both sides, alternately, at the bottom ^a
bhigh capacity with axles (volume > 45m³)cwith controlled gravity unloading, on both sides, alternately, at the top accwith controlled gravity unloading, on both sides, alternately, at the bottom a
cwith controlled gravity unloading, on both sides, alternately, at the top accwith controlled gravity unloading, on both sides, alternately, at the bottom a
cc with controlled gravity unloading, on both sides, alternately, at the bottom ^a
f suitable for traffic with Great Britain
i Sutuble for tunite with Oreat Diffam
ff suitable for traffic with Great Britain (by tunnel exclusively)
fff suitable for traffic with Great Britain (by train-ferry exclusively)
with 2 or 3 axles: tu < 20t
k with 4 axles: $tu < 40t$
with 6 axles or more: $tu < 50t$
with 2 or 3 axles: $20t \le tu < 25t$
Index letters kk with 4 axles: $40t \le tu \le 50t$
with 6 axles or more: $50t \le tu < 60t$
1 with bulk gravity unloading, on both sides, simultaneously, at the top ^a
11 with bulk gravity unloading, on both sides, simultaneously, at the bottom ^a
with 2 axles: $tu > 30t$
with 3 axles: $tu > 40t$
n with 4 axles: $tu > 60t$
with 6 axles or more: $tu > 75t$
o with axial bulk gravity unloading, at the top ^a
oo with axial bulk gravity unloading, at the bottom ^a
p with axial controlled gravity unloading, at the top ^a
pp with axial controlled gravity unloading, at the bottom ^a ppp with station for brakeman ^b

- **a** Wagons with gravity unloading in category F are open wagons, which do not have a flat floor and have no tipping facility either at the end or the side.
- **b** Only applicable to wagons with gauge of 1520 mm.

The method of unloading these wagons is defined by a combination of the following characteristics:

Arrangement of the unloading apertures:

- axial: Apertures situated above the centre of the track
- bilateral: Apertures on either side of the track, outside the rails
 - (For these wagons, unloading is:
 - simultaneous, if complete emptying of the wagon requires the apertures to be open on both sides,
 - alternate, if complete emptying of the wagon can take place by opening the apertures on one side only)
- top: The lower edge of the discharge through (without taking into account mobile devices which may extend this through) is situated at least 0.700 m above the rail, and allows for the use of a conveyor belt to take away the goods
- bottom: The position of the lower edge of the discharge through does not allow for the use of a conveyor belt to take away the goods

Rate of unloading:

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- bulk: Once the apertures are open for unloading, they cannot be closed again until the wagon is empty
- controlled: At any time during unloading, the flow of the goods can be regulated or even stopped

CATEGORY LETTER: G – COVERED WAGON

		of ordinary type,
		with at least 8 ventilation apertures
Reference wagon		with 2 axles: $9m \le lu < 12m$; $25t \le tu \le 30t$
	0	with 4 axles: $15m \le lu < 18m$; $50t \le tu \le 60t$
		with 6 axles or more: $15m \le lu < 18m$; $60t \le tu \le 75t$
	а	with 4 axles
	aa	with 6 axles or more
	1	high capacity: - with 2 axles: $lu \ge 12m$ and payload capacity $\ge 70m^3$
	b	- with 4 axles or more: $lu \ge 18 m$
	bb	with 4 axles or more: lu > 18m ^a
	g	for grain
h		for fruits and vegetables ^b
		with 2 axles: tu < 20t
	k	with 4 axles: $tu < 40t$
		with 6 axles or more: $tu < 50t$
T. 1. 1.4.		with 2 axles: $20t \le tu < 25t$
Index letters	kk	with 4 axles: $40t \le tu < 50t$
		with 6 axles or more: $50t \le tu < 60t$
	1	with less than 8 ventilation apertures
	11	with enlarged doors apertures ^a
		with 2 axles: lu < 9m
	m	with 4 axles or more: lu < 15m
		with 2 axles: $tu > 30t$
	n	with 4 axles: $tu > 60t$
		with 6 axles or more: $tu > 75t$
	0	with 2 axles: $lu < 12m$ and payload capacity $\ge 70m^3$
	р	with station for brakeman ^a

a Only applicable to wagons with gauge of 1520 mm.

b The concept "for fruits and vegetables" applies only to wagons provided with additional ventilation apertures at the floor level.



Uniform Technical Prescriptions APPLICABLE TO VEHICLE NUMBERS AND LINKED ALPHABETICAL MARKING ON THE BODYWORK

Status: ADOPTED

OTIF

Version: 04 | Ref.: A 94-09/1.2014

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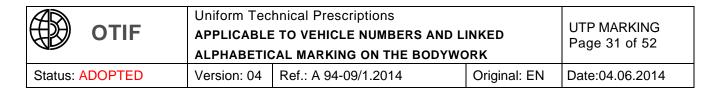
CATEGORY LETTER: H – COVERED WAGON

		of special type,		
Reference wagon		with 2 axles: $9m \le lu < 12m$; $25t \le tu \le 28t$		
Kelerend	e wagon	with 4 axles: $15m \le lu < 18m$; $50t \le tu \le 60t$		
		with 6 axles or more: $15m \le lu < 18m$; $60t \le tu \le 75t$		
	а	with 4 axles		
	aa	with 6 axles or more		
	1	- with 2 axles: $12m \le lu \le 14m$ and payload capacity $\ge 70m^{3}$ a		
	b	- with 4 axles or more: $18m \le lu \le 22m$		
	1.1	with 2 axles: $lu \ge 14m$		
	bb	with 4 axles or more: $lu \ge 22m$		
	с	with end doors		
	сс	with end doors and fitted internally for the transport of motor cars		
	d	with floor traps		
	dd	with tipping body ^b		
	е	with 2 floors		
	ee	with 3 floors or more		
	f	suitable for traffic with Great Britain ^a		
	ff	suitable for traffic with Great Britain (by tunnel exclusively)		
	fff	suitable for traffic with Great Britain (by train-ferry exclusively) ^a		
	g	for grain		
	gg	for cement ^b		
	h	for fruits and vegetables ^c		
Index letters	hh	for mineral fertilizer ^b		
	i	with opening or shunt walls		
	ii	with very robust opening or shunt walls ^d		
		with 2 axles: tu < 20t		
	k	with 4 axles: $tu < 40t$		
		with 6 axles or more: $tu < 50t$		
	kk	with 2 axles: $20t \le tu < 25t$		
		with 4 axles: $40t \le tu \le 50t$		
		with 6 axles or more: $50t \le tu < 60t$		
	1	with movable partitions ^e		
	11	with lockable movable partitions ^e		
	m	with 2 axles: lu < 9m		
	m	with 4 axles or more: $lu < 15m$		
	mm	with 4 axles or more: $lu > 18m^{b}$		
		with 2 axles: tu > 28t		
	n	with 4 axles: $tu > 60t$		
		with 6 axles or more: $tu > 75t$		
	0	with 2 axles: $12m < lu < 14m$ and payload capacity $\ge 70m^3$		
	р	with station for brakeman ^b		

a 2-axle wagons bearing the index letters "f", "fff" can have a payload capacity less than 70 m3.

b Only applicable to wagons with gauge of 1520 mm.

- **c** The concept "for fruits and vegetables" applies only to wagons provided with additional ventilation apertures at the floor level.
- **d** Only applicable to wagons with gauge of 1435 mm.
- e Movable partitions may be dismounted temporarily.



CATEGORY LETTER: I - TEMPERATURE-CONTROLLED WAGON

		refrigerator wagon,		
		· ·		
D.C		with class IN thermal insulation,		
Reference wagon		with motor-driven ventilation, with gratings and ice bunker $\ge 3,5m^3$		
		with 2 axles: $19m^2 \le \text{floor area} < 22m^2$; $15t \le tu \le 25t$		
		with 4 axles: floor area $\ge 39m^2$; $30t \le tu \le 40t$		
	а	with 4 axles		
	b	with 2 axles and large floor area: $22m^2 \le \text{floor area} \le 27m^2$		
	bb	with 2 axles and very large floor area: floor area $> 27m^2$		
	с	with meat hooks		
	d	for fish		
	e	with electric ventilation		
	f	suitable for traffic with Great Britain		
	ff	suitable for traffic with Great Britain (by tunnel exclusively)		
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)		
	g	with mechanical refrigeration ^{a b}		
	gg	refrigerator with liquefied gas ^a		
	h	with class IR thermal insulation		
Index letters	i	mechanically refrigerated by the machinery of an accompanying technical wagon ^{a b c}		
	ii	accompanying technical wagon ^{a c}		
	1	with 2 axles: $tu > 15t$		
	k	with 4 axles: $tu < 30t$		
	1	insulated without ice bunkers ^{a d}		
		with 2 axles: floor area $< 19m^2$		
	m	with 4 axles: floor area $< 39m^2$		
	mm	with 4 axles: floor area $\ge 39m^{2e}$		
		with 2 axles: $tu > 25t$		
	n	with 4 axles: $tu > 40t$		
	0	with ice bunkers of capacity less than 3,5m ^{3 d}		
	р	without gratings		
	-	•		

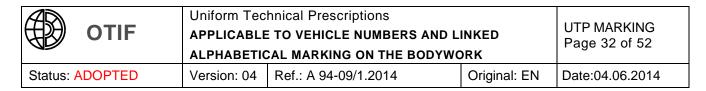
a The index letter "l" shall not be marked on wagons bearing the index letters "g", "gg", "i" or "ii".

b Wagons bearing both the index letters "g" and "i" can be used individually or in a mechanically refrigerated raft.

c The concept of "accompanying technical wagon" applies at the same time to factory wagons, workshop wagons (both with or without sleeping accommodation) and dormitory wagons.

- **d** The index letter "o" shall not be marked on wagons bearing the index letter "l".
- e Only applicable to wagons with gauge of 1520 mm.

Note: The floor area of covered refrigerator wagons is always determined taking into account the use of ice bunkers.



CATEGORY LETTER: K – 2-AXLE FLAT WAGON

Reference wagon		of ordinary type,
		with drop sides and short stanchions
		$lu \ge 12m$; $25t \le tu \le 30t$
	b	with long stanchions
	gg	fitted for the transport of containers ^a
	i	with removable cover and non-removable ends ^b
	j	with shock-absorbing device
	k	tu < 20t
	kk	$20t \le tu < 25t$
Index letters	1	without stanchions
	m	$9m \le lu < 12m$
	mm	lu < 9m
	n	tu > 30t
	0	with non-removable sides
	р	without sides ^b
	pp	with removable sides

a Index letter "g" may be used together with category letter K exclusively for ordinary wagons which have only been additionally fitted out for the transport of containers. Wagons fitted out solely for the transport of containers must be classified in category L.

b The index letter "p" shall not be marked on wagons bearing index letter "i"

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CATEGORY LETTER: L – 2-AXLE FLAT WAGON

Reference wagon		of special type,	
	8	$lu \ge 12m$; $25t \le tu \le 30t$	
b c	b	with special fittings for securing purposes for medium-sized containers (pa) ^a	
	с	with swivelling bolster ^a	
	d	fitted out for the transport of motor cars, without deck ^a	
	e	with decks for the transport of motor cars ^a	
	f	suitable for traffic with Great Britain	
	ff	suitable for traffic with Great Britain (by tunnel exclusively)	
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)	
	g	fitted for the transport of containers (except pa) ^{ab}	
	h	fitted out for the transport of steel coils, eye to side ^{a c}	
T. 1. 1. (1.)	hh	fitted out for the transport of steel coils, eye to sky ^{a c}	
Index letters	i	with removable cover and non-removable ends ^a	
	ii	With very robust removable metallic cover ^d and non-removable ends ^a	
	j	with shock-absorbing device	
	k	tu < 20t	
	kk	$20t \le tu < 25t$	
	1	without stanchions ^a	
	m	$9m \le lu < 12m$	
	mm	lu < 9m	
	n	tu > 30t	
	р	without sides ^b	

a The inscription of the index letters "l" or "p" is optional for wagons bearing the index letters "b", "c", "d", "e", "g", "h", "hh", "i" or "ii". But numerical codes must always correspond to letter markings on wagons.

b Wagons used solely for the transport of containers (except pa)

c Wagons used solely for the transport of steel coils.

d Only applicable to wagons with gauge of 1435 mm.

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CATEGORY LETTER: O – MIXED FLAT AND OPEN HIGH-SIDED WAGON

		of ordinary type,	
Reference	ce wagon	with 2 or 3 axles; with drop sides or ends and stanchions	
	8	with 2 axles: $lu \ge 12m$; $25t \le tu \le 30t$	
		with 3 axles: $lu \ge 12m$; $25t \le tu \le 40t$	
	a	with 3 axles	
	f	suitable for traffic with Great Britain	
ff		suitable for traffic with Great Britain (by tunnel exclusively)	
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)	
	k	tu < 20t	
Index letters	kk	$20t \le tu < 25t$	
	1	without stanchions	
	m	$9m \le lu < 12m$	
mm		lu < 9m	
		with 2 axles: $tu > 30t$	
n		with 3 axles: $tu > 40t$	

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CATEGORY LETTER: R –FLAT BOGIES WAGON

Reference wagon		of ordinary type, with drop ends and stanchions $18m \le lu \le 22m; 50t \le tu \le 60t$	
	b	$lu \ge 12m$	
	е	with drop sides	
	g	fitted for the transport of containers ^a	
	h	fitted out for the transport of steel coils, eye to side ^b	
	hh	fitted out for the transport of steel coils, eye to sky ^b	
	i	with removable cover and non-removable ends ^c	
	j	with shock-absorbing device	
	k	tu < 40t	
Index letters	kk	$40t \le tu < 50t$	
	1	without stanchions	
	m	$15m \le lu < 18m$	
	mm	lu < 15m	
	n	tu > 60t	
	0	with non-removable ends less than 2 m in height	
00		with non-removable ends, 2 m or more in height ^c	
	р	without drop ends ^c	
pp		with removable sides	

a The use of the index letter "g" associated with the category letter R is only possible in the case of ordinary wagons which have only been additionally fitted out for the transport of containers. Wagons fitted out solely for the transport of containers must be classified in category S.

b The use of the index letter "h" or "hh" together with the category letter R is only possible in the case of ordinary wagons which have only been additionally fitted out for the transport of containers. Wagons fitted out solely for the transport of containers must be classified in category S.

c The index letters "oo" and/or "p" shall not be marked on wagons bearing index letter "i".

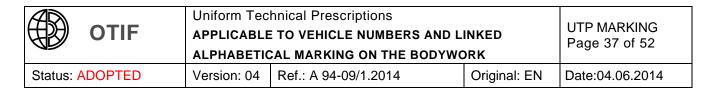
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CATEGORY LETTER: S -FLAT BOGIES WAGON

Reference wagon		of special type, with 4 axles: $lu \ge 18m$; $50t \le tu \le 60t$
		with 6 axles or more: $lu \ge 22m$; $60t \le tu \le 75t$
Index letters	а	with 6 axles (2 bogies of 3 axles)
	aa	with 8 axles or more
	aaa	with 4 axles (2 bogies of 2 axles) ^a
	b	with special fittings for securing purposes for medium-sized containers (pa) ^b
	с	with swivelling bolster ^b
	d	fitted out for the transport of motor cars, without deck ^{b c}
	e	with decks for the transport of motor cars ^b
	f	suitable for traffic with Great Britain
	ff	suitable for traffic with Great Britain (by tunnel exclusively)
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)
	g	fitted for the transport of containers, total loading length $\leq 60^{\circ}$ (except pa) b^{cd}
	gg	fitted for the transport of containers, total loading length $> 60^{\circ}$ (except pa) b^{cd}
	h	fitted out for the transport of steel coils, eye to side be
	hh	fitted out for the transport of steel coils, eye to sky ^{b e}
	i	with removable cover and non-removable ends ^b
	ii	With very robust removable metallic cover ^f and non-removable ends ^b
	j	with shock-absorbing device
	k	with 4 axles: $tu < 40t$
		with 6 axles or more: $tu < 50t$
	kk	with 4 axles: $40t \le tu < 50t$
		with 6 axles or more: $50t \le tu < 60t$
	1	without stanchions ^b
	m	with 4 axles: $15m \le lu < 18m$
		with 6 axles or more: $18m \le lu < 22m$
	mm	with 4 axles: $lu < 15m$
		with 6 axles or more: lu < 18m
	mmm	with 4 axles: $lu \ge 22m^{a}$
	n	with 4 axles: $tu > 60t$
		with 6 axles or more: $tu > 75t$
	р	without sides ^b

a Only applicable to wagons with gauge of 1520 mm.

- **b** The inscription of the index letters "l" or "p" is optional for wagons bearing the index letters "b", "c", "d", "e", "g", "gg", "h", "hh", "i" or "ii". But numerical codes must always correspond to letter markings on wagons.
- **c** Wagons which in addition to the transport of containers and swap bodies are used to transport vehicles shall be marked with the index letters "g" or "gg" and the letter "d".
- **d** Wagons used solely for the transport of containers or for transport of swap bodies for grab handling and spreader gripping.
- e Wagons used solely for the transport of steel coils.
- **f** Only applicable to wagons with gauge of 1435 mm.



CATEGORY LETTER: T - WAGON WITH OPENING ROOF

Defense		with 2 axles: $9m \le lu < 12m$; $25t \le tu \le 30t$			
Reference		with 4 axles: $15m \le lu < 18m$; $50t \le tu \le 60t$			
wagon		with 6 axles or more: $15m \le lu < 18m$; $60t \le tu \le 75t$			
	a with 4 axles				
	aa	with 6 axles or more			
	1.	high capacity: with 2 axles: $lu \ge 12m$			
	b	with 4 axles or more: $lu \ge 18m^{ab}$			
	с	with end doors			
	d	with controlled gravity unloading, on both sides, alternately, at the top ^{a b c}			
	dd	with controlled gravity unloading, on both sides, alternately, at the bottom ^{a b c}			
	e	with unobstructed height of the doors $> 1,90$ m ^{abc}			
	f	suitable for traffic with Great Britain			
	ff	suitable for traffic with Great Britain (by tunnel exclusively)			
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)			
	g	for grain			
	h	fitted out for the transport of steel coils, eye to side			
	hh	fitted out for the transport of steel coils, eye to sky			
	i	with opening walls ^a			
	j	with shock-absorbing device			
Index letters	5	with 2 axles: tu < 20t			
	k	with 4 axles: $tu < 40t$			
		with 6 axles or more: $tu < 50t$			
		with 2 axles: $20t \le tu < 25t$			
	kk	with 4 axles: $40t \le tu < 50t$			
		with 6 axles or more: $50t \le tu < 60t$			
	1	with bulk gravity unloading, on both sides, simultaneously, at the top ^{a b c}			
	11	with bulk gravity unloading, on both sides, simultaneously, at the bottom ^{a b c}			
		with 2 axles: lu < 9m			
	m	with 4 axles or more: lu < 15m ^b			
		with 2 axles: $tu > 30t$			
	n	with 4 axles: $tu > 60t$			
		with 6 axles or more: $tu > 75t$			
	0	with axial bulk gravity unloading, at the top ^{abc}			
ľ	00	with axial bulk gravity unloading, at the bottom ^{abc}			
	р	with axial controlled gravity unloading, at the top ^{a b c}			
	pp	with axial controlled gravity unloading, at the bottom ^{a b c}			

a Index letter "e":

- is optional on wagons bearing the index letter "b" (but numerical codes must always correspond to letter markings on wagons),

- shall not be marked on wagons bearing the index letters "d", "dd", "i", "l", "l", "o", "oo", "p" ou "pp".

b Index letter "b" and "m" shall not be marked on wagons bearing the index letters "d", "dd", "l", "ll", "o", "oo", "p" or "pp".

c Wagons with gravity unloading in category T are wagons fitted with an opening roof giving access to a loading hatch over the complete length of the body; these wagons do not have a flat floor and are not designed for end or side tipping.

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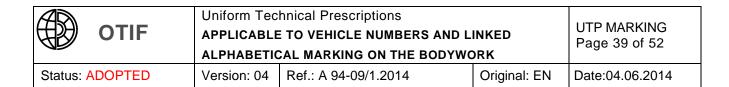
The method of unloading these wagons is defined by a combination of the following characteristics:

Arrangement of the unloading apertures:

- axial: Apertures situated above the centre of the track
- bilateral: Apertures on either side of the track, outside the rails
 - (For these wagons, unloading is:
 - simultaneous, if complete emptying of the wagon requires the apertures to be open on both sides,
 - alternate, if complete emptying of the wagon can take place by opening the apertures on one side only)
- top: The lower edge of the discharge through (without taking into account mobile devices which may extend this through) is situated at least 0.700 m above the rail, and allows for the use of a conveyor belt to take away the goods
- bottom: The position of the lower edge of the discharge through does not allow for the use of a conveyor belt to take away the goods

Rate of unloading:

- bulk: Once the apertures are open for unloading, they cannot be closed again until the wagon is empty
- controlled: At any time during unloading, the flow of the goods can be regulated or even stopped



CATEGORY LETTER: U - SPECIAL WAGONS

		other than those in categories F, H, L, S or Z	
Reference	with 2 axles: $25t \le tu \le 30t$		
wagon	with 3 axles: $25t \le tu \le 40t$		
. ugon		with 4 axles: $50t \le tu \le 60t$	
		with 6 axles or more: $60t \le tu \le 75t$	
	а	with 4 axles	
	aa	with 6 axles or more	
	с	with unloading under pressure	
	d	with controlled gravity unloading, on both sides, alternately, at the top ^a	
	11	with controlled gravity unloading, on both sides, alternately, at the	
	dd	bottom ^a	
	f	suitable for traffic with Great Britain	
	ff	suitable for traffic with Great Britain (by tunnel exclusively)	
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)	
	g	for grain	
		fitted out for the transport objects which should exceed the gauge if	
	i	they were loaded on ordinary wagons ^{b c}	
		with 2 or 3 axles: tu < 20t	
	k	with 4 axles: $tu < 40t$	
Index letters		with 6 axles or more: $tu < 50t$	
		with 2 or 3 axles: $20t \le tu < 25t$	
	kk	with 4 axles: $40t \le tu < 50t$	
		with 6 axles or more: $50t \le tu < 60t$	
	1	with bulk gravity unloading, on both sides, simultaneously, at the top ^a	
	11	with bulk gravity unloading, on both sides, simultaneously, at the	
	11	bottom ^a	
		with 2 axles: $tu > 30t$	
		with 3 axles: $tu > 40t$	
	n	with 4 axles: $tu > 60t$	
		with 6 axles or more: $tu > 75t^{\circ}$	
	0	with axial bulk gravity unloading, at the top ^a	
	00	with axial bulk gravity unloading, at the bottom ^a	
	р	with axial bulk gravity unloading, at the top ^a	
	pp	with axial bulk gravity unloading, at the bottom ^a	
	۲۲		

- **a** Wagons with gravity unloading in category U are closed wagons which can only be loaded through one or more loading apertures situated in at the top part of the body, and whose total opening dimensions are less than the length of the body; these wagons do not have a flat floor and are not designed for end or side tipping.
- **b** In particular:
 - well wagons
 - wagons with a central recess
 - wagons with an ordinary sloping diagonal permanent control desk
- c Index letter "n" shall not be marked on wagons bearing the index letter "i".

The method of unloading these wagons is defined by a combination of the following characteristics:

Arrangement of the unloading apertures:

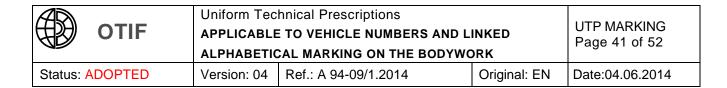
- axial: Apertures situated above the centre of the track
- bilateral: Apertures on either side of the track, outside the rails

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- (For these wagons, unloading is:
- simultaneous, if complete emptying of the wagon requires the apertures to be open on both sides,
- alternate, if complete emptying of the wagon can take place by opening the apertures on one side only)
- top: The lower edge of the discharge through (without taking into account mobile devices which may extend this through) is situated at least 0.700 m above the rail, and allows for the use of a conveyor belt to take away the goods
- bottom: The position of the lower edge of the discharge through does not allow for the use of a conveyor belt to take away the goods

Rate of unloading:

- bulk: Once the apertures are open for unloading, they cannot be closed again until the wagon is empty
- controlled: At any time during unloading, the flow of the goods can be regulated or even stopped.



CATEGORY LETTER: Z - TANK WAGON

		with metal shell, for the transport of liquids or gases	
	with 2 axles: $25t \le tu \le 30t$		
Reference	with 3 axles: $25t \le tu \le 40t$		
wagon	with 4 axles: $50t \le tu \le 60t$		
		with 6 axles or more: $60t \le tu \le 75t$	
	а	with 4 axles	
	aa	with 6 axles or more	
	b	for oil products ^a	
	с	with unloading under pressure ^b	
	d	for food and chemical products ^a	
	e	fitted with heating devices	
	f	suitable for traffic with Great Britain	
	ff	f suitable for traffic with Great Britain (by tunnel exclusively)	
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)	
	g	for the transport of gases under pressure, liquefied or dissolved under pressure ^b	
	i	tank of non-metallic material	
Index letters	j	with shock-absorbing device	
		with 2 or 3 axles: tu < 20t	
	k	with 4 axles: $tu < 40t$	
		with 6 axles or more: $tu < 50t$	
		with 2 or 3 axles: $20t \le tu < 25t$	
	kk	with 4 axles: $40t \le tu < 50t$	
		with 6 axles or more: $50t \le tu < 60t$	
		with 2 axles: $tu > 30t$	
	n	with 3 axles: $tu > 40t$	
	11	with 4 axles: $tu > 60t$	
		with 6 axles or more: $tu > 75t^{\circ}$	
	р	with station for brakeman ^a	

a Only applicable to wagons with gauge of 1520 mm.

b The index letter "c" shall not be marked on wagons bearing the index letter "g".



Status: ADOPTED

OTIF

LETTER MARKING FOR WAGONS FOR ARTICULATED AND MULTIPLE WAGONS

DEFINITION OF THE CATEGORY AND INDEX LETTERS

1. Important notes

In the attached tables, the information given in meters refers to the inside length of the wagons (lu).

2. Index letters with an international value common to all categories

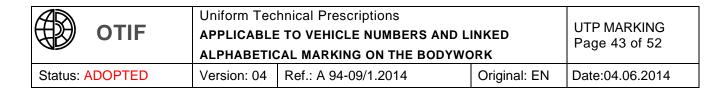
 \mathbf{q} pipe for electric heating which can be supplied by all accepted currents qq pipe and installation for electric heating which can be supplied by all accepted currents s wagons authorised to run under "s" conditions (see annex B of rolling stock TSI / UTP WAG) ss wagons authorised to run under "ss" conditions (see annex B of rolling stock TSI / UTP WAG)

3. Index letters with a national value

t, u, v, w, x, y, z The value of these letters is defined by each

Contracting State.

Member State.



CATEGORY LETTER: F - OPEN HIGH-SIDED WAGON

Reference		Articulated or multiple wagon		
	with axles, with 2 units			
wagon	$22m \le lu \le 27m$			
	а	with bogies		
	с	with controlled gravity unloading, on both sides, alternately, at the top ^a		
	сс	with controlled gravity unloading, on both sides, alternately, at the bottom ^a		
	e	with 3 units		
	ee	with 4 units or more		
	f	suitable for traffic with Great Britain		
	ff	suitable for traffic with Great Britain (by tunnel exclusively)		
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)		
Index letters	1	with bulk gravity unloading, on both sides, simultaneously, at the top ^a		
muex letters	11	with bulk gravity unloading, on both sides, simultaneously, at the bottom ^a		
	m	with 2 units: $lu \ge 27m$		
	mm	with 2 units: $lu < 22m$		
	0	with axial bulk gravity unloading, at the top ^a		
	00	with axial bulk gravity unloading, at the bottom ^a		
	р	with axial controlled gravity unloading, at the top ^a		
	pp	with axial controlled gravity unloading, at the bottom ^a		
	r	articulated wagon		
	rr	multiple wagon		

a Wagons with gravity unloading in category F are open wagons, which do not have a flat floor and are not designed for end or side tipping.

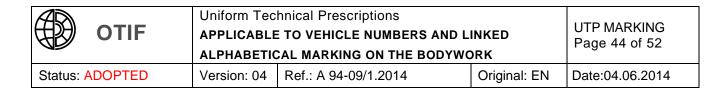
The method of unloading these wagons is defined by a combination of the following characteristics:

Arrangement of the unloading apertures:

- axial: Apertures situated above the centre of the track
- bilateral: Apertures on either side of the track, outside the rails
 - (For these wagons, unloading is:
 - simultaneous, if complete emptying of the wagon requires the apertures to be open on both sides,
 - alternate, if complete emptying of the wagon can take place by opening the apertures on one side only)
- top: The lower edge of the discharge through (without taking into account mobile devices which may extend this through) is situated at least 0.700 m above the rail, and allows for the use of a conveyor belt to take away the goods
- bottom: The position of the lower edge of the discharge through does not allow for the use of a conveyor belt to take away the goods

Rate of unloading:

- bulk: Once the apertures are open for unloading, they cannot be closed again until the wagon is empty
- controlled: At any time during unloading, the flow of the goods can be regulated or even stopped



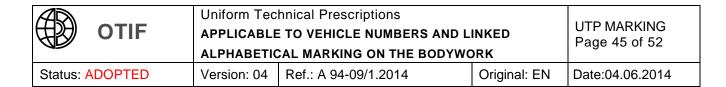
CATEGORY LETTER: H - COVERED WAGON

Reference		Articulated or multiple wagon	
	with axles, with 2 units		
wagon	$22m \le lu \le 27m$		
	а	with bogies	
	с	with end doors	
	сс	with end doors and fitted internally for the transport of motor cars	
	d	with floor traps	
	e	with 3 units	
	ee	with 4 units or more	
	f	suitable for traffic with Great Britain	
	ff	suitable for traffic with Great Britain (by tunnel exclusively)	
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)	
Index letters	g	for grain	
	h	for fruits and vegetables ^a	
	i	with opening or shunt walls	
	ii	with very robust opening or shunt walls ^b	
	1	with movable partitions ^c	
	11	with lockable movable partitions ^c	
	m	with 2 units: $lu \ge 27m$	
	mm	with 2 units: lu < 22m	
	r	articulated wagon	
	rr	multiple wagon	

a The concept "for fruits and vegetables" applies only to wagons provided with additional ventilation apertures at the floor level.

b Only applicable to wagons with gauge of 1435 mm.

c Movable partitions may be dismounted temporarily.



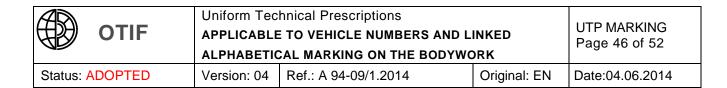
CATEGORY LETTER: I - TEMPERATURE CONTROLLED WAGON

		refrigerator wagon
		with class IN thermal insulation,
Reference		with motor-driven ventilation, with gratings and ice bunker $\ge 3,5m^3$
wagon		articulated or multiple wagon
		with axles, with 2 units
		$22m \le lu \le 27m$
	а	with bogies
	с	with meat hooks
	d	for fish
	e	with electric ventilation
	ee	with 4 units or more
	f	suitable for traffic with Great Britain
	ff	suitable for traffic with Great Britain (by tunnel exclusively)
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)
	g	with mechanical refrigeration ^a
	gg	refrigerator with liquefied gas ^a
Index letters	h	with class IR thermal insulation
	i	mechanically refrigerated by the machinery of an accompanying technical wagon ^{a b}
	ii	accompanying technical wagon ^{ab}
	1	insulated without ice bunkers ^{ac}
	m	with 2 units: $lu \ge 27m$
	mm	with 2 units: lu < 22m
	0	with ice bunkers of capacity less than 3,5m ^{3 c}
	00	with 3 units
	р	without gratings
	r	articulated wagon
	rr	multiple wagon

a The index letter "l" shall not be marked on wagons bearing the index letters "g", "gg", "i" or "ii".

b The concept of "accompanying technical wagon" applies at the same time to factory wagons, workshop wagons (both with or without sleeping accommodation) and dormitory wagons.

c The index letter "o" shall not be marked on wagons bearing the index letter "l".

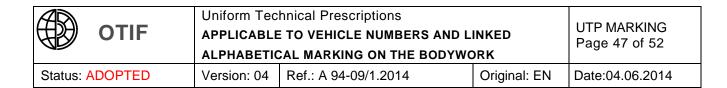


CATEGORY LETTER: L - FLAT WAGON WITH SEPARATE AXLES

Reference		articulated or multiple wagon			
	with 2 units				
wagon	$22m \le lu \le 27m$				
	а	articulated wagon			
	aa	multiple wagon			
	b	with special fittings for securing purposes for medium-sized containers (pa) ^a			
	с	with swivelling bolster ^a			
	d	fitted out for the transport of motor cars, without deck ^a			
	e	with decks for the transport of motor cars ^a			
	f	suitable for traffic with Great Britain			
	ff	suitable for traffic with Great Britain (by tunnel exclusively)			
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)			
	g	fitted for the transport of containers ^{a b}			
Index letters	h	fitted out for the transport of steel coils, eye to side ^{a c}			
mdex letters	hh	fitted out for the transport of steel coils, eye to sky ^{a c}			
	i	with removable cover and non-removable ends ^a			
	ii	with very robust removable metallic cover ^d and non-removable ends ^a			
	j	with shock-absorbing device			
	1	without stanchions ^a			
	m	with 2 units: $18m \le lu \le 22m$			
	mm	with 2 units: lu < 18m			
	0	with 3 units			
	00	with 4 units or more			
	р	without sides ^a			
	r	with 2 units: $lu \ge 27m$			

a The inscription of the index letters "l" or "p" is optional for wagons bearing the index letters "b", "c", "d", "e", "g", "h", "hh", "i" or "ii". But numerical codes must always correspond to letter markings on wagons.

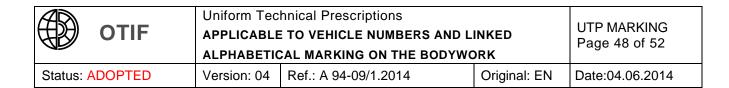
- **b** Wagons used solely for the transport of containers (except pa).
- c Wagons used solely for the transport of steel coils.
- **d** Only applicable to wagons with gauge of 1435 mm.



CATEGORY LETTER: S - FLAT BOGIE WAGON

Defense		articulated or multiple wagon		
Reference	with 2 units			
wagon		$22m \le lu \le 27m$		
	b	with special fittings for securing purposes for medium-sized containers (pa) ^a		
	с	with swivelling bolster ^a		
	d	fitted out for the transport of motor cars, without deck ^{a b}		
	e	with decks for the transport of motor cars ^a		
	f	suitable for traffic with Great Britain		
	ff	suitable for traffic with Great Britain (by tunnel exclusively)		
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)		
	g	fitted for the transport of containers, total loading length $\leq 60^{\circ}$ (except pa) ^{a b c}		
	gg	fitted for the transport of containers, total loading length $> 60^{\circ}$ (except pa) ^{a b c}		
	h	fitted out for the transport of steel coils, eye to side ^{a d}		
Index letters	hh	fitted out for the transport of steel coils, eye to sky ^{a d}		
macx letters	i	with removable cover and non-removable ends ^a		
	ii	with very robust removable metallic cover ^a and non-removable ends ^e		
	j	with shock-absorbing device		
	1	without stanchions ^a		
	m	with 2 units: $lu \ge 27m$		
	mm	with 2 units: $lu < 22m$		
	0	with 3 units		
	00	with 4 units or more		
	р	without sides ^a		
	r	articulated wagon		
	rr	multiple wagon		

- a The inscription of the index letters "l" or "p" is optional for wagons bearing the index letters "b", "c", "d", "e", "g", "gg", "h", "hh", "i" or "ii". But numerical codes must always correspond to letter markings on wagons.
- **b** Wagons which in addition to the transport of containers and swap bodies are used to transport vehicles shall be marked with the index letters "g" or "gg" and the letter "d".
- **c** Wagons used solely for the transport of containers or for transport of swap bodies for grab handling and spreader gripping.
- **d** Wagons used solely for the transport of steel coils.
- e Only applicable to wagons with gauge of 1435 mm.



CATEGORY LETTER: T - WAGON WITH OPENING ROOF

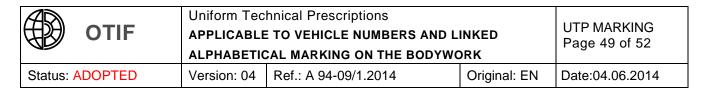
D (articulated or multiple wagon
Reference		with axles, with 2 units
wagon		$22m \le lu < 27m$
	а	With bogies
	b	with unobstructed height of doors > 1,90m ^a
	с	with end doors
	d	with controlled gravity unloading, on both sides, alternately, at the top ^b
	dd	with controlled gravity unloading, on both sides, alternately, at the bottom ^{a b}
	e	with 3 units
	ee	with 4 units or more
	f	suitable for traffic with Great Britain
	ff	suitable for traffic with Great Britain (by tunnel exclusively)
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)
	g	for grain
	h	fitted out for the transport of steel coils, eye to side
Index letters	hh	fitted out for the transport of steel coils, eye to sky
	i	with opening walls ^a
	j	with shock-absorbing device
	1	with bulk gravity unloading, on both sides, simultaneously, at the top ^{a b}
	11	with bulk gravity unloading, on both sides, simultaneously, at the bottom ^{a b}
	m	with 2 units: $lu \ge 27m$
	mm	with 2 units: $lu < 22m$
	0	with axial bulk gravity unloading, at the top ^{ab}
	00	with axial bulk gravity unloading, at the bottom ^{a b}
	р	with axial controlled gravity unloading, at the top ^{ab}
	pp	with axial controlled gravity unloading, at the bottom ^{ab}
	r	articulated wagon
	rr	multiple wagon

- **a** Index letter "b" shall not be marked on wagons bearing the index letters "d", "dd", "i", "l", "l", "o", "oo", "p" or "pp".
- **b** Wagons with gravity unloading in category T are wagons fitted with an opening roof giving access to a loading hatch over the complete length of the body; these wagons do not have a flat floor and are not designed for end or side tipping.

The method of unloading these wagons is defined by a combination of the following characteristics:

Arrangement of the unloading apertures:

- axial: Apertures situated above the centre of the track
- bilateral: Apertures on either side of the track, outside the rails
 - (For these wagons, unloading is:
 - simultaneous, if complete emptying of the wagon requires the apertures to be open on both sides,
 - alternate, if complete emptying of the wagon can take place by opening the apertures on one side only)
- top: The lower edge of the discharge through (without taking into account mobile devices which may extend this through) is situated at least 0.700 m above the rail, and allows for the use of a conveyor belt to take away the goods
- bottom: The position of the lower edge of the discharge through does not allow for the use of a conveyor belt to take away the goods



Rate of unloading:

- bulk: Once the apertures are open for unloading, they cannot be closed again until the wagon is empty
- controlled: At any time during unloading, the flow of the goods can be regulated or even stopped

Reference		articulated or multiple wagon		
		with axles, with 2 units		
wagon	$22m \le lu \le 27m$			
	а	With bogies		
	e	with 3 units		
	ee	with 4 units or more		
	с	with unloading under pressure		
	d	with controlled gravity unloading, on both sides, alternately, at the top ^a		
	dd	with controlled gravity unloading, on both sides, alternately, at the bottom ^{a b}		
	f	suitable for traffic with Great Britain		
	ff	suitable for traffic with Great Britain (by tunnel exclusively)		
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)		
	g	for grain		
Index letters	i	fitted out for the transport objects which should exceed the gauge if they were		
muex letters	1	loaded on ordinary wagons ^b		
	1	with bulk gravity unloading, on both sides, simultaneously, at the top ^a		
	11	with bulk gravity unloading, on both sides, simultaneously, at the bottom ^a		
	m	with 2 units: $lu \ge 27m$		
	mm	with 2 units: lu < 22m		
	0	with axial bulk gravity unloading, at the top ^a		
	00	with axial bulk gravity unloading, at the bottom ^{a b}		
	р	with axial controlled gravity unloading, at the top ^a		
	pp	with axial controlled gravity unloading, at the bottom ^a		
	r	articulated wagon		
	rr	multiple wagon		

CATEGORY LETTER: U - SPECIAL WAGONS

- **a** Wagons with gravity unloading in category U are closed wagons which can only be loaded through one or more loading apertures situated in at the top part of the body, and whose total opening dimensions are less than the length of the body; these wagons do not have a flat floor and are not designed for end or side tipping.
- **b** In particular:
 - well wagons
 - wagons with a central recess
 - wagons with an ordinary sloping diagonal permanent control desk

The method of unloading these wagons is defined by a combination of the following characteristics:

Arrangement of the unloading apertures:

- axial: Apertures situated above the centre of the track
- bilateral: Apertures on either side of the track, outside the rails.
 - (For these wagons, unloading is:
 - simultaneous, if complete emptying of the wagon requires the apertures to be open on both sides,
 - alternate, if complete emptying of the wagon can take place by opening the apertures on one side only)

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- top: The lower edge of the discharge through (without taking into account mobile devices which may extend this through) is situated at least 0.700 m above the rail, and allows for the use of a conveyor belt to take away the goods
- bottom: The position of the lower edge of the discharge through does not allow for the use of a conveyor belt to take away the goods

Rate of unloading:

- bulk: Once the apertures are open for unloading, they cannot be closed again until the wagon is empty
- controlled: At any time during unloading, the flow of the goods can be regulated or even stopped

		with metal shell,		
Reference wagon	for the transport of liquids or gases			
	articulated or multiple wagon			
		with axles, with 2 units		
	$22m \le lu \le 27m$			
	а	With bogies		
	с	with unloading under pressure ^a		
	e	fitted with heating devices		
	f	suitable for traffic with Great Britain		
	ff	suitable for traffic with Great Britain (by tunnel exclusively)		
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)		
	g	for the transport of gases under pressure, liquefied or dissolved under pressure ^a		
Index letters	i	tank of non-metallic material		
	j	with shock-absorbing device		
	m	with 2 units: $lu \ge 27m$		
	mm	with 2 units: $lu < 22m$		
	0	with 3 units		
	00	with 4 units or more		
	r	articulated wagon		
	rr	multiple wagon		

CATEGORY LETTER: Z - TANK WAGON

a The index letter "c" shall not be marked on wagons bearing the index letter "g".



Status: ADOPTED

OTIF

18. LETTER MARKING FOR HAULED PASSENGER STOCK

An application for a new code is filed with the registering entity (as referred to in the National Vehicle Register specifications A 94-20/2.2012) and sent to ERA or the Secretary General. A new code can be used only after publication by ERA¹⁸.

NVR Specification: Appendix 6 Part 13 — Letter marking for hauled passenger stock

Part 13 is published on the ERA website (<u>www.era.europa.eu</u>).

An application for a new code is filed with the registering entity (as referred to in Decision 2007/756/EC) and sent to the ERA. A new code can be used only after publication by the ERA.

Serial letters with an international value:

Α	1 st class coach with seats			
В	2 nd class coach with seats			
AB	$1 \text{ st} / 2^{\text{nd}}$ class coach with seats			
WL	Sleeping-car with serial letter A, B or AB depending on the type of accommodation			
	offered. The serial letters for sleeping-car with "special" compartments are supplemented with index-letter "S"			
WR	Dining-car			
R	Coach with dining-car, buffet or bar compartment (serial-letter used in addition)			
D	Van			
DD	Open, 2-tier car-carrier van			
Post	Mail van			
AS	Bar coach with dancing facilities			
SR				
WG				
WSP	Pullman coach			
Le	Open 2-axle 2-tier car-carrier wagon			
Leq	Open 2-axle 2-tier car-carrier wagon fitted with train supply cable			
Laeq	Open 3-axle 2-tier car-carrier wagon fitted with train supply cable			

Index letters with an international value:

b h	Coach fitted out to carry disabled passengers
с	Compartments convertible into couchette accommodation
d v	Vehicle fitted to receive bicycles
ee z	Vehicle fitted with central power supply
f	Vehicle fitted with driver's cab (driving trailer)
p t	Centre-aisle coach with seats
m	Vehicle over 24,5 m in length
S	Centre-aisle in vans and coaches with luggage compartment

The number of compartments is shown in the form of an index (for example: Bc9)

Serial letters and index letters with a national value

¹⁸ For EU Member States the applications should be sent to ERA.

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The others serial letters and index letters have a national value, defined by each

Contracting State.

Member State.