Pursuant to Article 44 paragraph 2 of the Railway Safety Law ("Official Gazette of the RS", No 41/18),

the Acting Director of the Directorate for Railways has adopted

Rulebook on marking of railway vehicles and trains

I. INTRODUCTORY PROVISIONS

Subject matter

Article 1

This rulebook sets out the marking of railway vehicles and marking of trains

Definitions of terms

Article 2

For the purposes of this rulebook, the following definitions shall apply:

1. *train upon ad-hoc request* for allocation of railway infrastructure capacity (hereinafter: ad – hoc requet) is a train introduced to traffic on special request for allocation of railway infrastructure capacitry submitted during the validity of the established timetable;

2) *special vehicle* means a powered rail vehicle, locotractor, powered vehicle for testing, maintenance or control of railway lines or other traction or hauled vehicle.

3) *hauled vehicle*means a railway vehicle without self-propulsion meant for passenger transport (passenger cars) or for transport of goods (freight wagon) or for special purposes (transport of equipment for removal of consequences of accidents or incidents, maintenance of infrastructure, etc.)

4) *traction unit/tractive rolling stock* means a vehicle with its own power;

5) *railway vehicle* means a vehicle with or without traction, suitable for circulation on wheels on railway tracks and which is composed of one or more structure and functional subsystems or parts of these subsystems;

6) *basic train* is any train whose timetable has been determined in advance and announced in the timetable;

7) *regular train* is a train that runs every day or on certain days, whether it runs all the time or only during a certain period of validity of the timetable

8) *traffic route* is the route of the train from its starting to the terminal station;

9) *UIC leaflet* is a standard of the International Union of Railways;

10) optional train is a train that has a set timetable and is introduced to traffic according to a special announcement (need);

10) *COTIF* is Convention on international carriage by rail

II. MARKING OF RAILWAY VEHICLES

1. General provisions on the marking of railway vehicles

Manner of marking

Article 3

Railway vehicles may be marked by:

1) numbers;

2) letters;

3) other marks and inscriptions.

Number and alphabetical markings

Article 4

The number marking represents a unique number consisting of 12 digits.

The number marking is supplemented by alphabetical markings:

1) interoperability marking;

2) marking of the country where the vehicle has been registered;

3) vehicle keeper marking;

4) marking for technical characteristic of a vehicle.

Capital letters and digits shall be at least 80 mm tall and they comply with the standards ЈŽS А0.011 and А0.012 (Decision on railway standards of general importance and for passenger coaches, "Official Gazette of the ZЈŽ", No 14/90).

The marking from paragraph 1 of this Article shall be place not more than two meters above the upper edge of the rail.

The unique vehicle number shall be changed if, due to modifications of a vehicle, it no longer reflect the original interoperability capability or technical characteristics the vehicle.

Structure of the unique vehicle number

Article 5

The structure of the unique vehicle number, depending on the type of vehicle, is given in Table 1.

Table 1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Type of rolling stock** | **Interoperability capability and vehicle type**  **(1st and 2nd digit)** | **Country in which the vehicle is registered**  **(3rd and 4th digit)** | **Technical characteristics (digits 5-8)** | **Serial number**  **(digits 9-11)** | **Check digit**  **(12th digit)** |
| **Wagons** | **00** to **09** **10** to **19** **20** to **29** **30** to **39** **40** to **49** **80** to **89** (Art. 11) | **01** to **99** (Art. 8) | **0000** to **9999** (Art. 12) | **000** to **999** | **0** to **9** (Art. 6) |
| **Passenger vehicles** | **50** to **59** **60** to **69** **70** to **79** (Art. 17) | **0000** to **9999** (Art. 18) | **001** to **999** |
| **Tractive rolling stock and units in a trainset** | **90** dо **99** (Art. 22) | **0000001** to **8999999** (Art. 23) | |
| **Special vehicles** | **9000** to **9999** (Art. 24) | **000** to **999** |

Determination of the check-digit

Article 6

The check-digit (12th digit of the unique vehicle number) is determined in the following manner:

1) the digits in the even positions of the basic number, counting from the right, are taken at their own decimal value;

2) the digits in the odd positions of the basic number (counting from the right) are multiplied by 2;

3) 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;

4) to the sum from the point 3 is added the complement required to bring the units digit to 10 and it forms the check-digit;

5) should this units digit from point 3 be nought, then the check-digit will also be nought.

The examples of calculation of the check-digit is given in Annex 1 – Example of calculation of the check-digit, which is attached to this rulebook and forms its integral part.

Alphabetical marking of the interoperability

Article 7

Alphabetical markings of the interoperability are:

1) "TEN" – means a vehicle which fully complies with all relevant unique technical prescriptions (hereinafter referred to as: UTPs) i.e. technical specifications of interoperability (hereinafter referred to as: TSIs) and provided with an authorisations in accordance with Article 6 paragraph 3 of the Appendix G (hereinafter referred to as: ATMF) of the Convention on international carriage by rail (COTIF);

2) "PPV/PPW" – means a vehicle which complies with Rules on the use of wagons in international traffic (hereinafter referred to as: PPV/PPW) of Rules on the use of wagons in the member states of the Organisation for cooperation between railways (hereinafter referred to as: OSJD);

3) Grid marking – means a vehicle which is not eligible for “TEN” marking if the UTP/TSI contain open points relating to the vehicle compatibility with infrastructure or if the vehicle is subject to a derogation or as specific cases or not fully UTP/TSI compliant; such vehicles shall be admitted according to Article 6, paragraph 4 of ATMF and contain a marking indicating the states where the vehicle is admitted to operation which xhall be written in the following manner:

|  |  |  |
| --- | --- | --- |
|  | or |  |

where D stands for the state which has granted the first admission for the vehicle (in the given example, Germany) and F stands for the second authorising country (in the given example, France).

Alphabetic and numerical coding of the countries

Article 8

Alphabetic and numerical coding of the countries are given in Table 2.

Table 2

| Country | Alphabetical code | Numerical code |
| --- | --- | --- |
| Albania | AL | 41 |
| Algeria | DZ | 92 |
| Armenia | AM | 58 |
| Austria | A | 81 |
| Azerbaijan | AZ | 57 |
| Belarus | BY | 21 |
| Belgium | B | 88 |
| Bosnia-Herzegovina | BIH | 50 and 44 |
| Bulgaria | BG | 52 |
| China | RC | 33 |
| Croatia | HR | 78 |
| Czech Republic | CZ | 54 |
| Denmark | DK | 86 |
| Egypt | ET | 90 |
| Estonia | EST | 26 |
| Finland | FIN | 10 |
| France | F | 87 |
| Georgia | GE | 28 |
| Germany | D | 80 |
| Greece | GR | 73 |
| Hungary | H | 55 |
| Iran | IR | 96 |
| Iraq | IRQ | 99 |
| Ireland | IRL | 60 |
| Israel | IL | 95 |
| Italy | I | 83 |
| Kazakhstan | KZ | 27 |
| Cuba | CU | 40 |
| Kyrgyzstan | KS | 59 |
| Latvia | LV | 25 |
| Lebanon | RL | 98 |
| Liechtenstein | FL | - |
| Lithuania | LT | 24 |
| Luxembourg | L | 82 |
| Macedonia | MK | 65 |
| Malta | M | - |
| Moldova | MD | 23 |
| Monaco | MC | - |
| Mongolia | MGL | 31 |
| Montenegro | MNE | 62 |
| Morocco | MA | 93 |
| Netherlands | NL | 84 |
| Norway | N | 76 |
| Poland | PL | 51 |
| Portugal | P | 94 |
| Romania | RO | 53 |
| Russia | RUS | 20 |
| Serbia | SRB | 72 |
| Slovakia | SK | 56 |
| Slovenia | SLO | 79 |
| South Korea | ROK | 61 |
| Spain | E | 71 |
| Sweden | S | 74 |
| Switzerland | CH | 85 |
| Syria | SYR | 97 |
| Tajikistan | TJ | 66 |
| Tunisia | TN | 91 |
| Turkey | TR | 75 |
| Turkmenistan | TM | 67 |
| Ukraine | UA | 22 |
| United Kingdom | GB | 70 |
| Uzbekistan | UZ | 29 |

Vehicle keeper markings

Article 9

A vehicle keeper marking is an alphabetic code consisting of 2 to 5 letters and inscribed on each side of a vehicle next to the unique vehicle number.

The marking from paragraph 1 of this Article identifies the vehicle keeper as registered in a national vehicle register and it is allocated in accordance with the provisions of COTIF.

2. Special provisions for marking of wagons

Inscription of numerical and alphabetical markings on wagons

Article 10

Numerical and alphabetical markings shall be inscribed on both lateral sides of a wagon in the following manner:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 23 80 7369 Zcs | TEN D-RFC 553-4 |  | 31 80 0691 Tanoos | TEN D-DB 235-2 |  | 33 84 4796 Slpss | TEN NL-ACTS 100-8 |

where:

1) TEN stands for interoperability;

2) D and NL are alphabetical codes of countries where the vehicle is registered;

3) RFC, DB and ACTS are codes of vehicle keepers.

If on the sides of the wagon there is not enough space for printing numerical and letter markings as prescribed by paragraph 1 of this Article, especially in case of flat wagons, numerical and letter markings are printed on separated panels in the following manner:

|  |  |  |
| --- | --- | --- |
| 0187 | 3320 | 644-7 |
| TEN | F-SNCF | Ks |

 The national letter markings for a subseries are printed after the international letter marking and they are separated by a dash:

|  |  |  |
| --- | --- | --- |
| 0187 | 3320 | 644-7 |
| TEN | F-SNCF | Ks-xy |

Numerical interoperability codes used for wagons

Article 11

Numerical interoperability codes used for wagons (digits 1 to 2 of the unique vehicle number) are given in Annex 2 – Numerical interoperability codes used for wagons (1st and 2nd digit), which is attached to this rulebook and forms its integral part.

Numerical codes for the technical characteristics of the wagons

Article 12

Technical characteristics of the wagons are represented by digits 5-8 of the unique vehicle number.

Digit 5 designates the serial number of the wagon.

The numerical codes of series of wagons arve given in Table 3.

Table 3

|  |  |
| --- | --- |
| Numerical code of  series of wagons | Letter marking of  series of wagons |
| 0 | Т |
| 1 | G |
| 2 | H |
| 3 | K, O, R |
| 4 | L, S |
| 5 | E |
| 6 | F |
| 7 | Z |
| 8 | I |
| 9 | U |

Digits from six to eight designate subseries of wagons

The Directorate for Railways published numerical codes of subseries of wagons on its internet site.

*Letter markings of series of wagons, except for articulated and multiple wagons*

**Article 13**

Letter markings of series of wagons except for articulated and multiple wagons are given in Table 4.

**Table 4**

|  |  |
| --- | --- |
| Е | Open high-sided wagon |
| F | Open high-sided wagon |
| G | Covered wagon |
| H | Covered wagon |
| I | Temperature-controlled wagon |
| K | Two-axled flat wagon |
| L | Two-axled flat wagon |
| O | Mixed flat wagon and open high-sided wagon |
| R | Flat bogies wagon |
| S | Flat bogies wagon |
| T | Wagon with opening roof |
| U | Special wagon |
| Z | Tank wagon |

Letter markings of series of articulated and multiple wagons

**Article 14**

Letter markings of series of articulated and multiple wagons are given in Table 5.

Table 5

|  |  |
| --- | --- |
| **F** | Open high-sided wagon (two units) |
| **H** | Covered wagon (two units) |
| **I** | Temperature-controlled wagon (two units) |
| **S** | Flat bogies wagon (two units) |
| **T** | Wagon with opening roof (two units) |
| **U** | Special wagon (two units) |
| **Z** | Tank wagon (two units) |

Letter markings of subseries of wagons

Article 15

Letter markings of subseries of wagons (index letters) may have:

1) international value;

2) national value.

Letter markings of subseries of wagons with an international value common to all categories of wagons are given in Table 6.

Table 6

|  |  |
| --- | --- |
| **Q** | Pipe for electric heating which can be supplied by all types of currents |
| **Qq** | Pipe and installation for electric heating which can be supplied by all types of currents |
| **S** | Wagons authorized to run under "S" conditions - speed 100 km/h |
| **Ss** | Wagons authorized to run under "SS" conditions – speed 120 km/h |

Other letter markings of subseries with international value are characteristic for specific series of wagons given in Annex 3 – Letter markings of subseries of wagons, except for articulated and multiple wagons, which is attached to this rulebook and forms its integral part.

The letter markings of subseries given in Table 7 have the stated meaning only in the Republic of Serbia.

Table 7

|  |  |
| --- | --- |
| **t** | Wagons for transporting heavy objects (with S wagons) |
| **t** | Official wagons for freight trains (with U wagons) |
| **u** | Wagons for transport of lime (with T wagons) |
| **v** | Wagons provided only with water for air brake (with all wagons) |
| **w** | reserved |
| **x** | Wagons longer than 10 m with removable sides (with E wagons) |
| **y** | reserved |
| **z** | Wagons with manual brake (with all wagons) |
| **ž** | Wagons for specific rail purposes |

3. Special provisions for marking of passengers cars

Inscription of numerical and letter markings on passenger cars

Article 16

Numerical and letter markings shall be applied to each sidewall of the passenger car in the following manner:

F-SNCF 61 87 20 - 72 021 - 7

B10 tv

The letter marking of the country in which the passenger car is registered and of the technical characteristics are printed directly in front of, or behind or under the unique vehicle number.

In case of coaches with driver’s cabin, the unique vehicle number is also written inside the cabin.

Numerical marking of the capability of use of passenger cars in international traffic

Article 17

Numerical markings of the capability of use of passenger cars in international traffic (digits 1 and 2 of the unique vehicle number) are given in Annex 4 – Numerical markings of the capability of use of passenger cars in international traffic (digits 1 and 2), which is attached to this rulebook and forms its integral part.

Numerical markings of exploitation and technical characteristics of passenger cars

Article 18

Numerical marking of exploitation characteristics of passenger cars (digits 5 to 6 of the unique vehicle number) are given in Annex 5 – Numerical marking of exploitation characteristics of passenger cars (digits 5 to 6) which is attached to this rulebook and forms its integral part.

Numerical markings of technical characteristics of passenger cars (digits 7 to 8 of the unique vehicle number) are given in Annex 6 – Numerical markings of technical characteristics of passenger cars (digits 7 to 8), which is attached to this rulebook and forms its integral part.

Serial letter markings for passenger cars

Article 19

Serial letters for passenger cars with an international value are given in Table 8.

Таble 8

|  |  |
| --- | --- |
| **A** | 1st class coach with seats |
| **B** | 2nd class coach with seats |
| **AB** | 1st /2nd 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, for example AR) |
| **D** | Van |
| **DD** | Open, 2-tier car-carrier van |
| **Post** | Mail van |
| **AS SR WG** | Bar coach with dancing facilities |
| **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 |

It is possible to combine letter markings given in Table 7, taking into account the construction of the vehicle for example: ABD – 1st /2nd class coach with seats and van, D Post – mail van etc.)

The number of compartments is shown in the form of an index (for example: B10 - 2nd class coach with seats with ten compartments).

*Letter markings of subseries of passenger cars*

Article 20

Letter markings of subseries of passenger cars with an international value are given in Table 9.

Table 9

|  |  |
| --- | --- |
| **b h** | Coach fitted out to carry disabled passengers |
| **c** | Couchette coach |
| **d v** | Vehicle fitted to receive bicycles |
| **ee z** | Vehicle fitted with power supply exclusively through the catenary (without generator or alternator) |
| **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 |

4. Special provisions for marking of tractive rolling stock and units in a train set and special vehicles

Inscription of numerical markings

Article 21

The unique vehicle number is printed on both sidewalls of the tractive rolling stock, units in a train set and special vehicles in the following manner:

91 72 1 441 062-8

The unique vehicle number is also printed inside each cabin of the tractive rolling stock.

The existing 6-digit markings may be kept on the vehicles from paragraph 1 of this Article.

Numerical markings for vehicle types

Article 22

Type of the tractive rolling stock, units in a train set and special vehicles is defined by digits 1 and 2 of the unique vehicle number.

Digit 1 of the unique vehicle number is always 9.

Digit 2 of the unique vehicle number designates the type of the vehicle according to the Table 10.

Table 10

|  |  |
| --- | --- |
| **2nd digit** | **Vehicle type** |
| **0** | Miscellaneous |
| **1** | Electric locomotive |
| **2** | Diesel locomotive |
| **3** | Electric multiple-unit set for 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 |

Serial numerical markings of tractive rolling stock and units in a multiple-unit set

Article 23

Digit 5 of the unique vehicle number is the same as the 2nd digit of the unique vehicle number.

Digits 6-8 of the unique vehicle number designate a series of vehicles.

Digit 6 of the unique vehicle number of a self-propelled vehicle designates the type of propulsion and when related to trailers it indicates that it belongs to a multiple-set unit i.e. to power car according to the type of propulsion.

Digit 6 of the unique vehicle number can be:

1) for steam locomotives 0, 1 or 2;

2) for electric locomotives 4 or 5;

3) for diesel locomotives 6, 7 or 8;

4) for locomotives with other types of propulsion 9.

Depending of other characteristics of a locomotive, digit 6 may be:

1) 0 – stands for steam cylinder locomotives which on 1st January 1933 were not more than 25 years old and whose total number was more than five and it is not printed on the existing locomotives;

2) 1 – stands for steam cylinder locomotives, which on 1st January 1933 were more than 25 years old, i.e. more recent locomotives if their total number was less than five;

3) 2 – stands for locomotives with other types of steam propulsion;

4) 4 – stands for electric locomotives, multiple-unit sets and power cars for single-phase current 25 kV, 50 Hz;

5) 5 - stands for electric locomotives, multiple-unit sets and power cars for other types of currents;

6) 6 – stands for diesel-electric locomotive, multiple-unit sets and power cars;

7) 7 – stands for diesel-hydraulic locomotives, multiple-unit sets and power cars;

8) 8 – stands for diesel-mechanic locomotives, multiple-unit sets and power cars;

9) 9 – stands for locomotives, multiple-unit sets and power cars with other types of propulsion.

Digits 7 and 8 of the unique vehicle number relate to the characteristics of vehicles.

With steam locomotives, digits 7 and 8 have the following meaning:

1) for standard track:

(1) 01-14 locomotives with a separate tender for passenger trains,

(2) 15-19 tender locomotives for passenger trains,

(3) 20-49 locomotives with a separate tender for freight trains,

(4) 50-59 tender locomotives for freight and passenger trains;

(5) 60-69 shunting locomotives;

2) with 760 mm track gauge:

(1) 70-94 adhesion locomotives;

(2) 95-97 rack locomotives;

With electric and diesel locomotives the 7th and 8th digit have the following meaning:

1) Digit 7 stands for a total number of motor axles or coupled axles;

2) Digit 8 designates the construction type of a locomotive; the 8th digit, except 0, includes all construction types of locomotives with the same technical characteristics; in case of minor construction differences in a group of locomotives within the same digit, at the eighth position, these can be marked by the digits of the ordinal number in a series;

3) narrow track locomotives have 0 as the eighth digit; construction differences can be marked by an ordinal number of a series.

With power cars and trailers, the 7th and 8th digit have the following meaning:

1) Digit 7 is 1;

2) Digit 8, if it is 0, 1, 2 or 3, it designates different types of power cars, and if it is 4, 5, 6, 7, 8 or 9, it designates different types of trailers.

Construction differences are marked by an ordinal number of a series.

There are different markings for trailers:

1) in a multiple-unit set, when their ends are specially adapted for a fixed coupling in a multiple-unit set;

2) with a multiple-unit set, when their ends are provided with devices for a standard coupling in a multiple-unit set;

3) with a driver’s cab, when it is provided with a device by which power cars can be served remotely and by which multiple-unit sets can be operated remotely.

The marking system used for power cars and multiple-unit sets is given in Table 11.

Table 11

|  |  |
| --- | --- |
| **Type of vehicle** | **Serial marking and ordinal number** |
| Power car in a multiple-unit set | \*) x10-000 x 11-000 |
| Power car | x 12-000 x 13-000 |
| Driving trailer | x 14-000 x 15-000 |
| Trailer in a multiple-unit set | x 16-000 x 17-000 |
| Power car trailer | x 18-000 x 19-000 |
| \*) x in the serial numerical code represents the number designating the type of propulsion. | |

Numerical markings for the technical characteristics of the special vehicles

Article 24

Digit 5 of the unique vehicle number is always 9.

Digit 6 of the unique vehicle number designates the highest admissible speed of the vehicle and its meaning is given in Table 12.

Table 12

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Classification** | | | Self-propelled travelling speed (digit 6) | | |
| ≥ 100 km/h | < 100 km/h | 0 km/h |
| Can be put into a train | V ≥ 100 km/h | Self-propelled | **1** | **2** |  |
| Non self-propelled |  |  | **3** |
| V < 100 km/h and/or restrictions а | Self-propelled |  | **4** |  |
| Non self-propelled |  |  | **5** |
| Cannot be put the a train | | Self-propelled |  | **6** |  |
| Non self-propelled |  |  | **7** |
| Self-propelled rail/road vehicle that can be put into a train b | | |  | **8** |  |
| Self-propelled rail/road vehicle that cannot be put into a train  b | | |  | **9** |  |
| Non self-propelled rail/road vehicle b | | |  |  | **0** |
| а 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. | | | | | |

Digits 7 and 8 of the unique vehicle number designate the type and sub-type of special vehicle.

The meaning of the digits 7 to 8 of the unique vehicle number is given in Annex 7, which is attached to this rulebook and forms its integral part.

5. Other markings and inscriptions

Article 25

Other markings and inscriptions are set out by:

1) for wagons in SRPS EN 15877-1;

2) for other vehicles in EN 15877-2.

III. MARKING OF TRAINS

1. General provisions on marking of trains

Manner of marking

**Article 26**

Trains on the railways of the Republic of Serbia are marked with Arabic numerals consisting of a maximum of five digits.

Only one train can be marked with one number.

On the entire route, the train is marked with only one number.

The number of train is formed so that based on it it can be determined whether the train is from international or domestic traffic, type of train, whether it runs all year round or only in season, whether it is basic or divided, the route on which it runs, the direction of the train etc.

The train from which a part of the train that travels on the branch line is separated in the junction station has the same number on the whole route, and the separated train is marked with a special number, starting from the junction station.

The train to which a part of the train is added in the connecting station has the same number on the entire route, and the connecting train is marked with a special number from the initial to the connecting station.

Pairs of passenger trains are marked with two adjacent corresponding numbers, so that the even number is smaller.

In the case of international passenger trains, the number of tens indicates the traffic route and was determined by the UIC leaflet 419-1.

In the case of trains for the transport of passengers in domestic traffic, the traffic route means:

1) digit in place of a ten, for trains with a three-digit number;

2) a digit in place of a hundred, for trains with a four-digit number.

In the case of freight, service and auxiliary trains in domestic traffic, the route is determined by the figure of hundreds.

The figure that determines the relation of train traffic from domestic traffic corresponds to the number of schedule/graph on which the route of the respective train is shown.

Odd numbers denote trains that run on lines from the west and north to the east and south, and in the opposite direction, trains are marked with even numbers.

2. Marking of passenger trains

Marking of passenger trains in international traffic

**Article 27**

Trains for the transport of passengers in international traffic are marked with numbers from 000 to 13499, as follows:

1) from 000 to 199 - daily EuroCity (EC) trains;

2) from 200 to 299 - night EuroNight and express trains;

3) from 300 to 499 - express and fast trains;

4) from 500 to 999 - InterCity (IC) trains;

5) from 1000 to 1299 - seasonal express and high-speed trains;

6) from 1300 to 1499 - autocars;

7) from 13000 to 13299 - agency trains;

8) from 13300 to 13499 - connections of agency trains.

Trains on an ad-hoc request for the transport of passengers in international traffic are marked by adding additional numbers in front of the basic train number, as follows:

1) number 10 - for a train that travels in front of the main train with the same timetable elements as for the basic train;

2) number 11 - for a train which operates behind the basic train with the same timetable elements as with the basic train;

3) number 12 - for a train that runs according to different elements of the timetable from the basic train, which are determined when the train is put into traffic or its timetable is determined separately when the train is put into traffic.

Marking of passenger trains in domestic traffic

**Article 28**

Trains for the transport of passengers in domestic traffic are marked with numbers from 500 to 9999, as follows:

1) from 500 to 599 - InterCity (IC) trains;

2) from 600 to 999 - Inter Regio (IR) trains;

3) from 700 to 799 - Regio Express (REx) trains;

4) from 2000 to 6999 - Regio trains;

5) from 7000 to 9999 - suburban trains.

Divided trains for the transport of passengers in domestic traffic are marked in such a way that additional numbers are added in front of the number of the basic train, as follows:

1) for trains marked with three digits:

(1) number 10 - for a split train whose traffic is planned in advance and which runs in front of the basic train with the same timetable elements as for the basic train;

(2) number 11 - for a split train whose timetable is planned in advance and which operates behind the basic train with the same timetable elements as for the basic train;

(3) number 12 - for a split train whose traffic is not planned in advance and which runs according to different elements of the timetable from the basic train, which are determined when the train is put into traffic;

(4) number 14 - for a split train whose traffic is planned in advance and which travels on an auxiliary transport route;

(5) numbers 15-18 - for a split train whose traffic is not planned in advance and which runs according to different elements of the timetable from the basic train or auxiliary transport route, which is determined when the train is put into traffic;

2) for trains marked with four digits - by adding the number 3 in front of the number of the main train.

Marking of season trains

**Article 29**

Season trains for transport of passengers in domestic traffic are marked by:

1) by adding number 1 in front of the three digit number of train;

2) by adding number 2 in front of the four digit number of train.

3. Marking of freight trains

Marking of freight trains in international traffic

**Article 30**

Freight trains from international traffic are marked with numbers from 40,000 to 49,999, as follows:

1) from 40,000 to 43,999 - combined transport trains;

2) from 44000 to 45999 - trains with individual cars;

3) from 46000 to 46999 - trains with individual cars and closed trains with a single load (block trains);

4) from 47000 to 49999 - closed trains with a single load (block trains).

The leaflet of the International Railway Union UIC 419-2 is also used for marking of international freight trains.

Marking of freight trains in domestic traffic

**Article 31**

Freight trains in domestic traffic are marked with numbers from 50,000 to 99999, as follows:

1) from 50,000 to 50,999 - express and high-speed freight trains;

2) from 51000 to 52999 - direct freight trains;

3) from 53000 to 54999 - section freight trains;

4) from 55000 to 55999 - high-speed handling trains;

5) from 56000 to 56999 - feeder and feeder-handling trains;

6) from 57000 to 57999 - circular and industrial freight trains;

7) from 58000 to 59999 - freight trains on ad-hoc request.

Extraordinary freight trains in domestic traffic, whose inclusion into traffic is conditioned by operational needs, which is decided by the infrastructure manager, are marked by replacing the number 5 (the first digit of the basic train number) with the number 6.

4. Marking of other trains

Marking of service and auxiliary trains

**Article 32**

Service trains and auxiliary trains in domestic traffic are marked with numbers from 70,000 to 79999, as follows:

1) from 70,000 to 72,999 - locomotive trains;

2) from 73000 to 76999 - trains for the needs of infrastructure managers (work trains, auxiliary trains, patrol locomotives, snowploughs, etc.);

3) from 77000 to 77999 - test trains;

4) from 78000 to 78999 - empty trains;

5) from 79000 to 79999 - official trains on ad-hoc request.

Extraordinary service and auxiliary trains from internal traffic, whose introduction into traffic is conditioned by operational needs, which is decided by the infrastructure manager, are marked by replacing the number 7 (the first digit of the base train number) with the number 8.

5. Reserve contigent

**Article 33**

Numbers from 90000 to 99999 are a reserve contingent and are used in case of need.

IV. FINAL PROVISIONS

Termination of rules

Article 34

Rulebook on marking of railway vehicles (“Official Gazette of the RS”, No 74/14) and Guidelines on marking of trains on the line of Yugoslav Railways (“Official Journal of the ZJZ”, No 12/94, 2/95 and 6/03) shall be repealed with effect from the date of entry into force of this rulebook.

Entry into force

Article 35

This rulebook enters into force on the eighth day after its publications in the “Official Gazette of the Republic of Serbia”.

No 340-1123/2020

In Belgrade, 20 Octobre 2020

Acting Director

**Lazar Mosurović**

**Annex 1**

Example for calculating a control number

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Basic number  Multiplication factor | 3  2 | 3  1 | 8  2 | 4  1 | 4  2 | 7  1 | 9  2 | 6  1 | 1  2 | 0  1 | 0  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 number of units of this sum is 2. The addition to the full ten is 8 and that is the control

number. The base number becomes a unique number 33 84 4796 100-8

**Annex 2**

Interoperability codes used for wagons (digits 1-2)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1st digit  **↓** | 2nd digit  → | **0** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | 2nd digit  ← | 1st 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 including 7.1.2 and all conditions of Appendix C (a) | 0 | with axles | Not to be used | Wagons (b) | | Not to be used(d) | | | | | | PPV/PPW wagons (variable gauge) | with axles | 0 |
| 1 | with bogies | with bogies | 1 |
| 2 | with axles | wagons (b) | | | | | | | | PPV/PPW wagons  (fixed gauge) | with axles | 2 |
| 3 | with bogies | with bogies | 3 |
| Other wagons  (e) | 4 | with axles (c) | maintenance related wagons | Other wagons | | | | | | | | Wagons with special numbering for technical characteristics not placed in service inside EU or a COTIF Contracting State | with axles (c) | 4 |
| 8 | with bogies (c) | with bogies (c) | 8 |
|  | **↑**  1st digit | →  2nd digit | **0** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | ←  2nd digit | **↑**  1st digit |
| (a) UTP wagons A94-02/2,2012 (COTIF) or TSI wagons  (b) Including wagons that carry the figures set out in this table in accordance with previous regulations  (c) Fixed or variable gauge  (d) Except for wagons in category I (temperature-controlled wagons), not to be used for new vehicles placed in service. | | | | | | | | | | | | | | |

**Annex 3**

Note:

The data given in meters in the attached tables represent the useful length of the wagon (lu) and the data given in tonnes represent the highest load limit (tu) which is stated in the list of load masses of the concerned wagon.

**LETTER MARKINGS OF SUBSERIES FOR WAGONS EXCLUDING ARTICULATED AND MULTIPLE WAGONS**

**CATEGORY LETTER: E – OPEN HIGH-SIDED WAGON**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | of ordinary type,  with side and end tipping, with flat floor  with 2 axles: lu ≥ 7,70m; 25t ≤ tu ≤ 30t  with 4 axles: lu ≥ 12m; 50t ≤ tu ≤ 60t  with 6 axles or more: lu ≥ 12m; 60t ≤ tu ≤ 75t |
| Index letters (subseries) | **a** | with 4 axles |
| **aa** | with 6 axles or more |
| **c** | with floor traps a |
| **k** | with 2 axles: tu < 20t  with 4 axles: tu < 40t  with 6 axles or more: tu < 50t |
| **kk** | with 2 axles: 20t ≤ tu < 25t  with 4 axles: 40t ≤ tu < 50t  with 6 axles or more: 50t ≤ tu < 60t |
| **1** | without side tipping |
| **11** | without floor traps b |
| **m** | with 2 axles: lu < 7,70m  with 4 axles or more: lu < 12m |
| **mm** | with 4 axles or more: lu > 12m b |
| **n** | with 2 axles: tu > 30t  with 4 axles: tu > 60t  with 6 axles or more: tu > 75t |
| **о** | without end tipping |
| **p** | with station for brakeman b |
| (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**

|  |  |  |
| --- | --- | --- |
| Reference wagon |  | of special type,  with 2 axles: 25t ≤ tu ≤ 30t  with 3 axles: 25t ≤ tu ≤ 40t  with 4 axles: 50t ≤ tu ≤ 60t  with 6 axles or more: 60t ≤ tu ≤ 75t |
| Index letters (subseries) | **a** | with 4 axles |
| **aa** | with 6 axles or more |
| **b** | high capacity with axles (volume > 45m3) |
| **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 |
| **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** | with 2 or 3 axles: tu < 20t  with 4 axles: tu < 40t  with 6 axles or more: tu < 50t |
| **kk** | with 2 or 3 axles: 20t ≤ tu < 25t  with 4 axles: 40t ≤ tu < 50t  with 6 axles or more: 50t ≤ 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 |
| **n** | with 2 axles: tu > 30t  with 3 axles: tu > 40t  with 4 axles: tu > 60t  with 6 axles or more: tu > 75t |
| **о** | with axial bulk gravity unloading, at the top a |
| **оо** | 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) The term „wagons with gravity unloading” relates only to wagons that do not have a flat floor and have no tipping facility either at the end or at 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:* | | |
| * 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**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | of ordinary type,  with at least 8 ventilation apertures  with 2 axles: 9m ≤ lu < 12m; 25t ≤ tu ≤ 30t  with 4 axles: 15m ≤ lu < 18m; 50t ≤ tu ≤ 60t  with 6 axles or more: 15m ≤ lu < 18m; 60t ≤ tu ≤ 75t |
| Index letters (subseries) | **a** | with 4 axles |
| **aa** | with 6 axles or more |
| **b** | high capacity: - with 2 axles: lu ≥ 12m and payload capacity ≥ 70m3  - with 4 axles or more: lu ≥ 18 m |
| **bb** | with 4 axles or more: lu > 18m a |
| **g** | for grain |
| **h** | for fruits and vegetables b |
| **k** | with 2 axles: tu < 20t  with 4 axles: tu < 40t  with 6 axles or more: tu < 50t |
| **kk** | with 2 axles: 20t ≤ tu < 25t  with 4 axles: 40t ≤ tu < 50t  with 6 axles or more: 50t ≤ tu < 60t |
| **l** | with less than 8 ventilation apertures |
| **ll** | with enlarged doors apertures a |
| **m** | with 2 axles: lu < 9m  with 4 axles or more: lu < 15m |
| **n** | with 2 axles: tu > 30t  with 4 axles: tu > 60t  with 6 axles or more: tu > 75t |
| **o** | with 2 axles: lu < 12m and payload capacity ≥ 70m3 |
| **p** | 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. | | |

**CATEGORY LETTER: H – COVERED WAGON**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | of special type,  with 2 axles: 9m ≤ lu < 12m; 25t ≤ tu ≤ 28t  with 4 axles: 15m ≤ lu < 18m; 50t ≤ tu ≤ 60t  with 6 axles or more: 15m ≤ lu < 18m; 60t ≤ tu ≤ 75t |
| Index letters (subseries) | **a** | with 4 axles |
| **aa** | with 6 axles or more |
| **b** | - with 2 axles: 12m ≤ lu ≤ 14m and payload capacity ≥ 70m3 a  - with 4 axles or more: 18m ≤ lu ≤ 22m |
| **bb** | with 2 axles: lu ≥ 14m  with 4 axles or more: lu ≥ 22m |
| **c** | with end doors |
| **cc** | with end doors and fitted internally for the transport of motor cars |
| **d** | with floor traps |
| **dd** | with tipping body b |
| **e** | 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 |
| **hh** | for mineral fertilizer b |
| **i** | with opening or shunt walls |
| **ii** | with very robust opening or shunt walls d |
| **k** | with 2 axles: tu < 20t  with 4 axles: tu < 40t  with 6 axles or more: tu < 50t |
| **kk** | with 2 axles: 20t ≤ tu < 25t  with 4 axles: 40t ≤ tu < 50t  with 6 axles or more: 50t ≤ tu < 60t |
| **l** | with movable partitions e |
| **ll** | with lockable movable partitions e |
| **m** | with 2 axles: lu < 9m  with 4 axles or more: lu < 15m |
| **mm** | with 4 axles or more: lu > 18m b |
| **n** | with 2 axles: tu > 28t  with 4 axles: tu > 60t  with 6 axles or more: tu > 75t |
| **o** | with 2 axles: 12m < lu < 14m and payload capacity ≥ 70m3 |
| **p** | 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**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | refrigerator wagon,  with class IN thermal insulation,  with motor-driven ventilation, with gratings and ice bunker ≥ 3,5m3  with 2 axles: 19m2 ≤ floor area < 22m2; 15t ≤ tu ≤ 25t  with 4 axles: floor area ≥ 39m2; 30t ≤ tu ≤ 40t |
| Index letters (subseries) | **a** | with 4 axles |
| **b** | with 2 axles and large floor area: 22m2 ≤ floor area ≤ 27m2 |
| **bb** | with 2 axles and very large floor area: floor area > 27m2 |
| **c** | 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 |
| **i** | mechanically refrigerated by the machinery of an accompanying technical wagon a b c |
| **ii** | accompanying technical wagon a c |
| **k** | with 2 axles: tu > 15t  with 4 axles: tu < 30t |
| **1** | insulated without ice bunkers a d |
| **m** | with 2 axles: floor area < 19m2  with 4 axles: floor area < 39m2 |
| **mm** | with 4 axles: floor area ≥ 39m2 e |
| **n** | with 2 axles: tu > 25t  with 4 axles: tu > 40t |
| **o** | with ice bunkers of capacity less than 3,5m3 d |
| **p** | 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 ≥ 12m; 25t ≤ tu ≤ 30t |
| Index letters (subseries) | **b** | with long stanchions |
| **g** | 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 ≤ tu < 25t |
| **1** | without stanchions |
| **m** | 9m ≤ lu < 12m |
| **mm** | lu < 9m |
| **n** | tu > 30t |
| **o** | with non-removable sides |
| **p** | 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“. | | |

**CATEGORY LETTER: L – 2-AXLE FLAT WAGON**

|  |  |  |
| --- | --- | --- |
| Reference wagon |  | of special type,  lu ≥ 12m; 25t ≤ tu ≤ 30t |
| Index letters (subseries) | **b** | with special fittings for securing purposes for medium-sized containers (pa) a |
| **c** | 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) a b |
| **h** | fitted out for the transport of steel coils, eye to side a c |
| **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 |
| **ј** | with shock-absorbing device |
| **k** | tu < 20t |
| **kk** | 20t ≤ tu < 25t |
| **1** | without stanchions a |
| **m** | 9m ≤ lu < 12m |
| **mm** | lu < 9m |
| **n** | tu > 30t |
| **p** | 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. | | |

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

|  |  |  |
| --- | --- | --- |
| Reference wagon | | of ordinary type,  with 2 or 3 axles; with drop sides or ends and stanchions  with 2 axles: lu ≥ 12m; 25t ≤ tu ≤ 30t  with 3 axles: lu ≥ 12m; 25t ≤ tu ≤ 40t |
| Index letters (subseries) | **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 |
| **kk** | 20t ≤ tu < 25t |
| **1** | without stanchions |
| **m** | 9m ≤ lu < 12m |
| **mm** | lu < 9m |
| **n** | with 2 axles: tu > 30t  with 3 axles: tu > 40t |

**CATEGORY LETTER: R – FLAT BOGIES WAGON**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | of ordinary type,  with drop ends and stanchions  18m ≤ lu < 22m; 50t ≤ tu ≤ 60t |
| Index letters (subseries) | **b** | lu ≥ 12m |
| **e** | 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 |
| **kk** | 40t ≤ tu < 50t |
| **1** | without stanchions |
| **m** | 15m ≤ lu < 18m |
| **mm** | lu < 15m |
| **n** | tu > 60t |
| **o** | with non-removable ends less than 2 m in height |
| **oo** | with non-removable ends, 2 m or more in height c |
| **p** | 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". | | |

**CATEGORY LETTERS: S – FLAT BOGIES WAGON**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | of special type,  with 4 axles: lu ≥ 18m; 50t ≤ tu ≤ 60t  with 6 axles or more: lu ≥ 22m; 60t ≤ tu ≤ 75t |
| Index letters (subseries) | **a** | 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 |
| **c** | 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 ≤ 60’ (except pa) b c d |
| **gg** | fitted for the transport of containers, total loading length > 60’ (except pa) b c d |
| **h** | fitted out for the transport of steel coils, eye to side b e |
| **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 ≤ tu < 50t  with 6 axles or more: 50t ≤ tu < 60t |
| **1** | without stanchions b |
| **m** | with 4 axles: 15m ≤ lu < 18m  with 6 axles or more: 18m ≤ lu < 22m |
| **mm** | with 4 axles: lu < 15m  with 6 axles or more: lu < 18m |
| **mmm** | with 4 axles: lu ≥ 22m a |
| **n** | with 4 axles: tu > 60t  with 6 axles or more: tu > 75t |
| **p** | 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**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | with 2 axles: 9m ≤ lu < 12m; 25t ≤ tu ≤ 30t  with 4 axles: 15m ≤ lu < 18m ; 50t ≤ tu ≤ 60t  with 6 axles or more: 15m ≤ lu < 18m; 60t ≤ tu ≤ 75t |
| Index letters (subseries) | **a** | with 4 axles |
| **aa** | with 6 axles or more |
| **b** | high capacity: with 2 axles: lu ≥ 12m  with 4 axles or more: lu ≥ 18m a b |
| **c** | 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 > 1,90m a b c |
| **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 |
| **k** | with 2 axles: tu < 20t  with 4 axles: tu < 40t  with 6 axles or more: tu < 50t |
| **kk** | with 2 axles: 20t ≤ tu < 25t  with 4 axles: 40t ≤ tu < 50t  with 6 axles or more: 50t ≤ 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 |
| **m** | with 2 axles: lu < 9m  with 4 axles or more: lu < 15m b |
| **n** | with 2 axles: tu > 30t  with 4 axles: tu > 60t  with 6 axles or more: tu > 75t |
| **o** | with axial bulk gravity unloading, at the top a b c |
| **oo** | with axial bulk gravity unloading, at the bottom a b c |
| **p** | 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“, “ll“, “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.  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 | | |

**CATGORY LETTER: U – SPECIAL WAGONS**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | other than those in categories F, H, L, S or Z |
| with 2 axles: 25t ≤ tu ≤ 30t |
| with 3 axles: 25t ≤ tu ≤ 40t |
| with 4 axles: 50t ≤ tu ≤ 60t |
| with 6 axles or more: 60t ≤ tu ≤ 75t |
| Index letters (subseries) | **a** | with 4 axles |
| **aa** | with 6 axles or more |
| **c** | 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 |
| **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 |
| **i** | fitted out for the transport objects which should exceed the gauge if they were loaded on ordinary wagons b c |
| **k** | with 2 or 3 axles: tu < 20t  with 4 axles: tu < 40t  with 6 axles or more: tu < 50t |
|  | with 2 or 3 axles: 20t ≤ tu < 25t  with 4 axles: 40t ≤ tu < 50t  with 6 axles or more: 50t ≤ tu < 60t |
| **kk** |
| **l** | 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 |
| **n** | with 2 axles: tu > 30t  with 3 axles: tu > 40t  with 4 axles: tu > 60t  with 6 axles or more: tu > 75t c |
| **o** | with axial bulk gravity unloading, at the top a |
| **oo** | with axial bulk gravity unloading, at the bottom a |
| **p** | with axial bulk gravity unloading, at the top a |
| **pp** | with axial bulk gravity unloading, at the bottom a |
| **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   (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**

|  |  |  |  |
| --- | --- | --- | --- |
| Reference wagon | | | with metal shell, for the transport of liquids or gases  with 2 axles: 25t ≤ tu ≤ 30t  with 3 axles: 25t ≤ tu ≤ 40t  with 4 axles: 50t ≤ tu ≤ 60t  with 6 axles or more: 60t ≤ tu ≤ 75t |
| Index letters | | **a** | with 4 axles |
| **aa** | with 6 axles or more |
| **b** | for oil products a |
| **c** | 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** | 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 |
| **j** | with shock-absorbing device |
| **k** | with 2 or 3 axles: tu < 20t  with 4 axles: tu < 40t  with 6 axles or more: tu < 50t |
| **kk** | with 2 or 3 axles: 20t ≤ tu < 25t  with 4 axles: 40t ≤ tu < 50t  with 6 axles or more: 50t ≤ tu < 60t |
| **n** | with 2 axles: tu > 30t  with 3 axles: tu > 40t  with 4 axles: tu > 60t  with 6 axles or more: tu > 75t |
| **p** | with station for brakeman a |
|  | 1. Only applicable to wagons with gauge of 1520mm 2. The index letter “c“ shall not be marked on wagons bearing the index letter “g“ | | |

**LETTER MARKINGS OF SUBSERIES FOR ARTICULATED AND MULTIPLE WAGONS**

**CATEGORY LETTER: F – OPEN HIGH-SIDED WAGON**

|  |  |  |  |
| --- | --- | --- | --- |
| Reference wagon | | Articulated or multiple wagon with axles, with 2 units  22 m ≤ lu < 27 m | |
| Index letter (subseries) | **a** | with bogies | |
| **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 | |
| **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) | |
| **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 ≥ 27m | |
| **mm** | with 2 units: lu < 22m | |
| **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 | |
| **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 wagons | | Articulated or multiple wagon  with axles, with 2 units  22m ≤ lu < 27m |
| Index letters (subseries) | **a** | with bogies |
| **c** | with end doors |
| **cc** | 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) |
| **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 ≥ 27m |
| **mm** | with 2 units: lu < 22m |
| **r** | articulated wagon |
| **rr** | multiple wagon |
| **a** CYRILLICThe 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**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | refrigerator wagon  with class IN thermal insulation,  with motor-driven ventilation, with gratings and ice bunker ≥ 3,5m3  articulated or multiple wagon with axles, with 2 units  22m ≤ lu < 27m |
| Index letters (subseries) | **a** | with bogies |
| **c** | 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 |
| **h** | with class IR thermal insulation |
| **i** | mechanically refrigerated by the machinery of an accompanying technical wagon a b |
| **ii** | accompanying technical wagon a b |
| **1** | insulated without ice bunkers a c |
| **m** | with 2 units: lu ≥ 27m |
| **mm** | with 2 units: lu < 22m |
| **o** | with ice bunkers of capacity less than 3,5m3 c |
| **oo** | with 3 units |
| **p** | 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 wagon | | Articulated wagon or multiple wagon  with 2 units  22 m ≤ lu < 27 m |
| Index letters (subseries) | **a** | articulated wagon |
| **aa** | multiple wagon |
| **b** | with special fittings for securing purposes for medium-sized containers (pa) a |
| **c** | 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 |
| **h** | fitted out for the transport of steel coils, eye to side a c |
| **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 ≤ lu < 22m |
| **mm** | with 2 units: lu < 18m |
| **o** | with 3 units |
| **oo** | with 4 units or more |
| **p** | without sides a |
| **r** | with 2 units: lu ≥ 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**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | articulated or multiple wagon  with 2 units  22m ≤ lu < 27m |
| Index letters (subseries) | **b** | with special fittings for securing purposes for medium-sized containers (pa) a |
| **c** | 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 ≤ 60’ (except pa) a b c |
| **gg** | fitted for the transport of containers, total loading length > 60’ (except pa) a b c |
| **h** | fitted out for the transport of steel coils, eye to side a d |
| **hh** | fitted out for the transport of steel coils, eye to sky a d |
| **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 ≥ 27m |
| **mm** | with 2 units: lu < 22m |
| **o** | with 3 units |
| **oo** | with 4 units or more |
| **p** | 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**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | articulated or multiple wagon  with axles, with 2 units  22m ≤ lu < 27m |
|  | **a** | With bogies |
|  | **b** | with unobstructed height of doors > 1,90m a |
|  | **c** | with end doors |
| Index letters (subseries) | **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 |
| **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 ≥ 27m |
| **mm** | with 2 units: lu < 22m |
| **o** | with axial bulk gravity unloading, at the top a b |
| **oo** | with axial bulk gravity unloading, at the bottom a b |
| **p** | with axial controlled gravity unloading, at the top a b |
| **pp** | with axial controlled gravity unloading, at the bottom a b |
| **r** | articulated wagon |
| **rr** | multiple wagon |
| **a** Index letter "b" shall not be marked on wagons bearing the index letters “d“, “dd“, “i“, “l“, “ll“, “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:  *1)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   *2)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**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | articulated or multiple wagon  with axles, with 2 units  22m ≤ lu < 27m |
| Index letter (subseries) | **a** | With bogies |
| **e** | with 3 units |
| **ee** | with 4 units or more |
| **c** | 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 |
| **i** | fitted out for the transport objects which should exceed the gauge if they were 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 ≥ 27m |
| **mm** | with 2 units: lu < 22m |
| **o** | with axial bulk gravity unloading, at the top a |
| **oo** | with axial bulk gravity unloading, at the bottom a b |
| **p** | 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 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:  *1)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   *2)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**

|  |  |  |
| --- | --- | --- |
| Reference wagon | | with metal shell,  for the transport of liquids or gases  articulated or multiple wagon  with axles, with 2 units  22m ≤ lu < 27m |
| Index letters (subseries) | **a** | With bogies |
| **c** | 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 |
| **i** | tank of non-metallic material |
| **j** | with shock-absorbing device |
| **m** | with 2 units: lu ≥ 27m |
| **mm** | with 2 units: lu < 22m |
| **o** | with 3 units |
| **oo** | with 4 units or more |
| **r** | articulated wagon |
| **rr** | multiple wagon |
| **a** The index letter "c" shall not be marked on wagons bearing the index letter "g". | | |

**Annex 4**

International traffic ability codes for passenger cars (digits 1 and 2)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Domestic traffic | TEN (a) and/or COTIF (b) and/or PPV/PPW | | | | Domestic traffic or International traffic by special agreement | TEN(a)  And/or  COTIF(b) | PPV/PPW | | |
| →  2th digit  1st digit  ⭣ | **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-adjustable (1435/1520) non-air-conditioned vehicles | Not to be used | Gauge-adjustable (1435/1668) non-air-conditioned vehicles | Historical vehicles | Not to be used(c) | Fixed-gauge vehicles | Gauge-adjustable (1435/1520) vehicles with change of bogies | Gauge-adjustable (1435/1520) vehicles with gauge-adjustable axles |
| **6** | Service vehicles | Fixed-gauge air-conditioned vehicles | Gauge-adjustable (1435/1520) air-conditioned vehicles | Service vehicles | Gauge-adjustable (1435/1668)air-conditioned vehicles | Car-carrying wagons | Not to be used(c) |  |
| **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 Article 7.

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

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

.

**Annex 5**

Numerical codes for the exploitation characteristics of the passenger cars (digits 5 and 6)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | →  6th digit  5th digit ⭣ | **0** | **1** | **2** | **3** | **4** |
| Reserved | **0** | Reserved | Reserved | Reserved | Reserved | Reserved |
| Vehicles with 1st 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 2nd 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 or 1st/2nd class seats | **3** | 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 | Reserved | Two or three axles |
| 1st or 1st/2nd class couchette cars | **4** | 10 1st/2nd class compartments | Reserved | Reserved | Reserved | ≤ 9 1st/2nd class compartments |
| 2nd class couchette cars | **5** | 10 compartments | 11 compartments | ≥ 12 compartments | Reserved | Reserved |
| Reserved | **6** | Reserved | Reserved | Reserved | Reserved | Reserved |
| Sleeping cars | **7** | 10 compartments | 11 compartments | 12 compartments | < 10 2nd class compartments | < 10 1st class compartments |
| Vehicles of special design, luggage and mail vans | **8** | Driving trailer with seats, all classes, with or without luggage compartment, with driving cab for reversible working | Vehicles with 1st or 1st/2nd class seats with luggage or mail compartment | Vehicles with 2nd class seats with luggage or mail compartment | Reserved | Vehicles with seats, all classes with specially-fitted areas, e.g. children’s play area |
| **9** | Mail vans | Luggage vans with mail compartment | Luggage vans | Luggage vans and two or three-axle 2nd class vehicles with seats, with luggage or mail compartment | Side-corridor luggage vans, with or without compartment under customs seal |

Note: Parts 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.

Numerical codes for the exploitation characteristics of the passenger cars (digits 5 and 6)

– continuation

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | →  6th digit  ⭣ 5th digit | **5** | **6** | **7** | | **8** | **9** |
| Reserved | **0** | Reserved | Reserved | Reserved | | Reserved | Reserved |
| Vehicles with 1st 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 2nd 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 1st or 1st/2nd 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 |
| 1st or 1st/2nd class couchette cars | **4** | Reserved | Reserved | Reserved | Reserved | | ≤ 9 1st class compartments |
| 2nd class couchette cars | **5** | Reserved | Reserved | Reserved | Reserved | | ≤ 9 compartments |
| Reserved | **6** | Reserved | Reserved | Reserved | Reserved | | Reserved |
| Sleeping cars | **7** | > 12 compartments | Reserved | Reserved | Reserved | | Reserved |
| Vehicles of special design and luggage 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) |
| **9** | Two or three-axle luggage vans with mail compartment | Reserved | Two or three-axle car-carrying wagons | Car-carrying wagons | | Service vehicles |

Note: Parts 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. OSJD – Organisation for cooperation of railways.

**Annex 6**

Numerical codes for technical characteristics of the passenger cars (digits 7 and 8)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Energy supply  Maximum speed | →  8th digit  ⭣ 7th digit | **0** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** |
| < 120 km/h | **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 |
| **1** | All tensions\*  + Steam1 | 1000 V~  + Steam1 | 1000 V~  + Steam1 | 1000 V~  + Steam1 | 1000 V~  + Steam1 | 1000 V~  + Steam1 | Reserved | 1500 V~  + 1500 V=  + Steam1 | 3000 V=  + Steam1 | 3000 V=  + Steam 1 |
| **2** | Steam1 | Steam1 | 3000 V~  + 3000 V=  + Steam1 | Steam1 | 3000 V~  + 3000 V=  + Steam1 | Steam1 | 3000 V~  + 3000 V=  1500 V~  + Steam1 | 1500 V~  + Steam1 | 1500 V~  + Steam1 | A 1 |
| 121 to 140km/h | **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= |
| **4** | All tensions \*  + Steam1 | All tensions  + Steam1 | All tensions  + Steam1 | 1000 V~ \*1  + Steam1 | 1500 V~  + 1500 V= | 1000 V~  + Steam1 | 3000 V~  + 3000 V= | 1500 V~  + 1500 V=  + Steam1 | 3000 V=  + Steam1 | Reserved |
| **5** | All tensions \*  + Steam1 | All tensions  + Steam1 | All tensions  + Steam1 | 1000 V~  + Steam1 | Reserved | 1500 V~  + Steam1 | Other tensions than 1000 V, 1500 V, 3000 V | 1500 V~  + 1500 V=  + Steam1 | Reserved | Reserved |
| **6** | Steam1 | Reserved | 3000 V~  + 3000 V= | Reserved | 3000 V~  + 3000 V= | Reserved | Steam1 | Reserved | Reserved | A 1 |
| 141 to 160 km/h | **7** | All tensions \* | All tensions | 1500 V~ 1  + 3000 V= 1  All tensions2 | 1000 V~ \* | 1500 V~  + 1500 V= | 1000 V~ | 1500 V~ | 1500 V~  + 1500 V= | 3000 V= | 3000 V= |
| **8** | All tensions \*  + Steam1 | All tensions  + Steam1 | 3000 V~  + 3000 V= | Reserved | All tensions \*  + Steam1 | 1000 V~  + Steam1 | 3000 V~  + 3000 V= | Other tensions than 1000 V, 1500 V, 3000 V | All tensions \*  + Steam1 | A 1  G 2 |
| > 160 km/h | **9** | All tensions \*2 | All tensions | All tensions  + Steam1 | 1000 V~  + 1500 V~ | 1000 V~ | 1000 V~ | Reserved | 1500 V~  + 1500 V= | 3000 V= | A 1  G 2 |
| 1: Only for domestic traffic vehicles  2 : 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  А: 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. | | | | | | | | | | | |

**Annex 7**

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

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

|  |  |  |
| --- | --- | --- |
| **7th digit** | **8th digit** | **Vehicle/machine** |
| **5**  Loading/  unloading and various transport | **1** | Rail loading/unloading and transport machine |
| **2** | Loading/unloading and transport machine for ballast, gravel, etc. |
| **3** |
| **4** |
| **5** | Sleeper loading/unloading and transport machine |
| **6** |
| **7** |
| **8** | Loading/unloading and transport machine for switchgear, etc. |
| **9** | Loading/unloading and transport machine for other materials |
| **0** | Other |
| **6**  Measuring | **1** | Earthworks recording car |
| **2** | Track recording car |
| **3** | Overhead line recording car |
| **4** | Gauge recording car |
| **5** | Signalling recording car |
| **6** | Telecommunications recording car |
| **7** |  |
| **8** |  |
| **9** |  |
| **0** | Other |
| **7**  Emergency | **1** | Emergency crane |
| **2** | Emergency haulage car |
| **3** | Emergency tunnel train |
| **4** | Emergency car |
| **5** | Fire car |
| **6** | Sanitary vehicle |
| **7** | Equipment car |
| **8** |  |
| **9** |  |
| **0** | Other |
| **8**  Traction, transport, energy, etc. | **1** | Traction units |
| **2** |  |
| **3** | Transport car (excl. 59) |
| **4** | Power car |
| **5** | Track car / powered car |
| **6** |
| **7** | Concreting car |
| **8** |  |
| **9** |  |
| **0** | Other |

|  |  |  |
| --- | --- | --- |
| **7th digit** | **8th digit** | **Vehicle/machine** |
| **9**  Environment | **1** | Self-propelled snow plough |
| **2** | Hauled snow plough |
| **3** | Snow broom |
| **4** | De-icing machine |
| **5** | Weed-killing machine |
| **6** | Rail cleaning machine |
| **7** | Vehicle for chemical weed-killing |
| **8** |  |
| **9** |  |
| **0** | Other |
| **0**  Rail/road | **1** | Category 1 rail/road vehicle  - can be incorporated into a train;  - self-propelled speed V <100 km / h;  - drive and braking on railway and road wheels;  - designed to be compatible with SS devices (rail circuits, axle counters, crossing points of level crossings, axle box overheating detectors) |
| **2** |
| **3** | Category 2 rail/road vehicle  - cannot be incorporated into a train;  - self-propelled speed V <100 km / h;  - drive, braking and loading directly over the railway wheels;  - compatible with SS devices - eighth digit: 3;  - not compatible with SS devices - eighth digit: 4 |
| **4** |
| **5** | Category 3 rail/road vehicle  - cannot be incorporated into a train;  - self-propelled speed V≤ 60 km / h;  - drive and braking indirectly via road wheels on railway wheels, load via railway wheels;  - compatible with SS devices - eighth digit: 5;  - not compatible with SS devices - eighth digit: 6 |
| **6** |
| **7** | Category 4 rail/road vehicle  - cannot be incorporated into a train;  - self-propelled speed V≤ 60 km / h;  - drive and braking over road wheels, load distributed on road and railway wheels;  - compatible with SS devices - eighth digit: 7;  - not compatible with SS devices - eighth digit: 8 |
| **8** |
| **9** | Other |
| **0** |