

## **Part 12 - Letter marking for wagons**

### **Part 12.1 - excluding articulated and multiple wagons**

#### **DEFINITION OF THE CATEGORY AND INDEX LETTERS**

##### **1. Important notes**

In the attached tables:

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

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

- q pipe for electric heating which can be supplied by all accepted currents
- qq pipe and installation for electric heating which can be supplied by all accepted currents
- s wagons authorised to run at 100 km/h
- ss wagons authorised to run at 120 km/h

##### **3. Index letters with a national value**

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

The value of these letters is defined by each Member State.

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

<b>Reference wagon</b>	<p style="text-align: center;"><b>of ordinary type, with side and end tipping, with flat floor with 2 axles: <math>lu \geq 7,70</math> m; <math>25 t \leq tu \leq 30 t</math>  with 4 axles: <math>lu \geq 12</math> m; <math>50 t \leq tu \leq 60 t</math> with 6 axles or more: <math>lu \geq 12</math> m; <math>60t \leq tu \leq 75 t</math></b></p>	
<b>Index letters</b>	a	with 4 axles
	aa	with 6 axles or more
	c	with floor traps <sup>a</sup>
	k	with 2 axles: $tu < 20 t$ with 4 axles: $tu < 40 t$ with 6 axles or more: $tu < 50 t$
	kk	with 2 axles: $20 t \leq tu < 25 t$ with 4 axles: $40 t \leq tu < 50 t$ with 6 axles or more: $50 t \leq tu < 60 t$
	l	without side tipping
	ll	without floor traps <sup>b</sup>
	m	with 2 axles: $lu < 7,70$ m with 4 axles or more: $lu < 12$ m
	mm	with 4 axles or more: $lu > 12$ m <sup>b</sup>
	n	with 2 axles: $tu > 30 t$ with 4 axles: $tu > 60 t$ with 6 axles or more: $tu > 75 t$
	o	without end tipping
p	with station for brakeman <sup>b</sup>	
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**

<i>Reference wagon</i>	<b>Of special type</b> <b>with 2 axles: 25 t ≤ tu ≤ 30 t</b> <b>with 3 axles: 25 t ≤ tu ≤ 40 t</b>  <b>with 4 axles: 50 t ≤ tu ≤ 60 t</b> <b>with 6 axles or more: 60 t ≤ tu ≤ 75 t</b>	
<b>Index letters</b>	a	with 4 axles
	aa	with 6 axles or more
	b	high capacity with axles (volume > 45 m <sup>3</sup> )
	c	with controlled gravity unloading, on both sides, alternately, at the top <sup>a</sup>
	cc	with controlled gravity unloading, on both sides, alternately, at the bottom <sup>a</sup>
	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 < 20 t with 4 axles: tu < 40 t with 6 axles or more: tu < 50 t
	kk	with 2 or 3 axles: 20 t ≤ tu < 25 t with 4 axles: 40 t ≤ tu < 50 t with 6 axles or more: 50 t ≤ tu < 60 t
	l	with bulk gravity unloading, on both sides, simultaneously, at the top <sup>a</sup>
	ll	with bulk gravity unloading, on both sides, simultaneously, at the bottom <sup>a</sup>
	n	with 2 axles: tu > 30 t with 3 axles or more: tu > 40 t with 4 axles: tu > 60 t with 6 axles or more: tu > 75 t
	o	with axial bulk gravity unloading, at the top <sup>a</sup>
	oo	with axial bulk gravity unloading, at the bottom <sup>a</sup>
p	with axial controlled gravity unloading, at the top <sup>a</sup>	
pp	with axial controlled gravity unloading, at the bottom <sup>a</sup>	
ppp	with station for brakeman <sup>b</sup>	
<p>a. Wagons with gravity unloading in category F are open wagons, which do not have a flat floor and have no tipping facility either at the end or the side.</p> <p>b. Only applicable to wagons with gauge of 1520 mm.</p>		
<p>The method of unloading these wagons is defined by a combination of the following characteristics:</p> <p><i>Arrangement of the unloading apertures:</i></p> <ul style="list-style-type: none"> <li>– axial : Apertures situated above the centre of the track</li> <li>– bilateral: Apertures on either side of the track, outside the rails (For these wagons, unloading is: <ul style="list-style-type: none"> <li>– simultaneous, if complete emptying of the wagon requires the apertures to be open on both sides,</li> <li>– alternate, if complete emptying of the wagon can take place by opening the apertures on one side only)</li> </ul> </li> <li>– 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</li> <li>– 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</li> </ul> <p><i>Rate of unloading:</i></p> <ul style="list-style-type: none"> <li>– bulk: Once the apertures are open for unloading, they cannot be closed again until the wagon is empty</li> <li>– controlled: At any time during unloading, the flow of the goods can be regulated or even stopped</li> </ul>		

**CATEGORY LETTER: G - COVERED WAGON**

<i>Reference wagon</i>	<b>Of ordinary type</b> <b>with at least 8 ventilation apertures</b> <b>with 2 axles: <math>9\text{ m} \leq lu &lt; 12\text{ m}</math>; <math>25\text{ t} \leq tu \leq 30\text{ t}</math></b> <b>with 4 axles: <math>15\text{ m} \leq lu &lt; 18\text{ m}</math>; <math>50\text{ t} \leq tu \leq 60\text{ t}</math></b> <b>with 6 axles or more: <math>15\text{ m} \leq lu &lt; 18\text{ m}</math>; <math>60\text{ t} \leq tu \leq 75\text{ t}</math></b>	
<b>Index letters</b>	a	with 4 axles
	aa	with 6 axles or more
	b	high capacity: - with 2 axles: $lu \geq 12\text{ m}$ and payload capacity $\geq 70\text{ m}^3$ - with 4 axles or more: $lu \geq 18\text{ m}$
	bb	with 4 axles: $lu > 18\text{ m}$ <sup>a</sup>
	g	for grain
	h	for fruits and vegetables <sup>b</sup>
	k	with 2 axles: $tu < 20\text{ t}$ with 4 axles: $tu < 40\text{ t}$ with 6 axles or more: $tu < 50\text{ t}$
	kk	with 2 axles: $20\text{ t} \leq tu < 25\text{ t}$ with 4 axles: $40\text{ t} \leq tu < 50\text{ t}$ with 6 axles or more: $50\text{ t} \leq tu < 60\text{ t}$
	l	with less than 8 ventilation apertures
	ll	with enlarged doors apertures <sup>a</sup>
	m	with 2 axles: $lu < 9\text{ m}$ with 4 axles or more: $lu < 15\text{ m}$
	n	with 2 axles: $tu > 30\text{ t}$ with 4 axles: $tu > 60\text{ t}$ with 6 axles or more: $tu > 75\text{ t}$
	o	with 2 axles: $lu < 12\text{ m}$ and payload capacity $\geq 70\text{ m}^3$
p	with station for brakeman <sup>a</sup>	
<p>a. Only applicable to wagons with gauge of 1520 mm.</p> <p>b. The concept "for fruits and vegetables" applies only to wagons provided with additional ventilation apertures at the floor level.</p>		

**CATEGORY LETTER: H - COVERED WAGON**

<i>Reference wagon</i>	<b>of special type</b> <b>with 2 axles: <math>9\text{ m} \leq lu \leq 12\text{ m}</math>; <math>25\text{ t} \leq tu \leq 28\text{ t}</math></b> <b>with 4 axles: <math>15\text{ m} \leq lu &lt; 18\text{ m}</math>; <math>50\text{ t} \leq tu \leq 60\text{ t}</math></b> <b>with 6 axles or more: <math>15\text{ m} \leq lu &lt; 18\text{ m}</math>; <math>60\text{ t} \leq tu \leq 75\text{ t}</math></b>	
<b>Index letters</b>	a	with 4 axles
	aa	with 6 axles or more
	b	with 2 axles: $12\text{ m} \leq lu \leq 14\text{ m}$ and payload capacity $\geq 70\text{ m}^3$ <sup>a</sup> with 4 axles or more: $18\text{ m} \leq lu < 22\text{ m}$
	bb	with 2 axles: $lu \geq 14\text{ m}$ with 4 axles or more: $lu \geq 22\text{ m}$
	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 <sup>b</sup>
	e	with 2 floors
	ee	with 3 floors or more
	f	suitable for traffic with Great Britain <sup>a</sup>
	ff	suitable for traffic with Great Britain (by tunnel exclusively)
	fff	suitable for traffic with Great Britain (by train-ferry exclusively) <sup>a</sup>
	g	for grain
	gg	for cement <sup>b</sup>
	h	for fruits and vegetables <sup>c</sup>
	hh	for mineral fertilizer <sup>b</sup>
	i	with opening or shunt walls
	ii	with very robust opening or shunt walls <sup>d</sup>
	k	with 2 axles: $tu < 20\text{ t}$ with 4 axles: $tu < 40\text{ t}$ with 6 axles or more: $tu < 50\text{ t}$
kk	with 2 axles: $20\text{ t} \leq tu < 25\text{ t}$ with 4 axles: $40\text{ t} \leq tu < 50\text{ t}$ with 6 axles or more: $50\text{ t} \leq tu < 60\text{ t}$	
l	with movable partitions <sup>e</sup>	
ll	with lockable movable partitions <sup>e</sup>	
m	with 2 axles: $lu < 9\text{ m}$ with 4 axles or more: $lu < 15\text{ m}$	
mm	with 4 axles or more: $lu > 18\text{ m}$ <sup>b</sup>	
n	with 2 axles: $tu > 28\text{ t}$ with 4 axles: $tu > 60\text{ t}$ with 6 axles or more: $tu > 75\text{ t}$	
o	with 2 axles: $lu\ 12\text{ m} < 14\text{ m}$ et volume utile $\geq 70\text{ m}^3$	
p	with station for brakeman <sup>b</sup>	
<p>a. 2-axle wagons bearing the index letters "f", "fff" can have a payload capacity less than 70 m<sup>3</sup>.</p> <p>b. Only applicable to wagons with gauge of 1520 mm.</p> <p>c. The concept « for fruits and vegetables » applies only to wagons provided with additional ventilation apertures at the floor level.</p> <p>d. Only applicable to wagons with gauge of 1435 mm.</p> <p>e. Movable partitions may be dismantled temporarily.</p>		

**CATEGORY LETTER: I - TEMPERATURE-CONTROLLED WAGON**

Reference wagon	refrigerator wagon with class IN thermal insulation, with motor-driven ventilation, with gratings and ice bunker $\geq 3,5 \text{ m}^3$ with 2 axles: $19 \text{ m}^2 \leq \text{floor area} < 22 \text{ m}^2$ ; $15 \text{ t} \leq \text{tu} \leq 25 \text{ t}$ with 4 axles: floor area $\geq 39 \text{ m}^2$ ; $30 \text{ t} \leq \text{tu} \leq 40 \text{ t}$	
<b>Index letters</b>	a	with 4 axles
	b	with 2 axles and large floor area: $22 \text{ m}^2 \leq \text{floor area} \leq 27 \text{ m}^2$
	bb	with 2 axles and very large floor area: floor area $> 27 \text{ m}^2$
	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 <sup>a b</sup>
	gg	refrigerator with liquefied gas <sup>a</sup>
	h	with class IR thermal insulation
	i	mechanically refrigerated by the machinery of an accompanying technical wagon <sup>a b c</sup>
	ii	accompanying technical wagon <sup>a c</sup>
	k	with 2 axles: $\text{tu} > 15 \text{ t}$ with 4 axles: $\text{tu} < 30 \text{ t}$
	l	insulated without ice bunkers <sup>a d</sup>
	m	with 2 axles: floor area $< 19 \text{ m}^2$ with 4 axles: floor area $< 39 \text{ m}^2$
mm	with 4 axles: floor area $\geq 39 \text{ m}^2$ <sup>e</sup>	
n	with 2 axles: $\text{tu} > 25 \text{ t}$ with 4 axles; $\text{tu} > 40 \text{ t}$	
o	with ice bunkers of capacity less than $3,5 \text{ m}^3$ <sup>d</sup>	
p	without gratings	
<p>a. The index letter "l" shall not be marked on wagons bearing the index letters "g", "gg", "i" or "ii".</p> <p>b. Wagons bearing both the index letters "g" and "i" can be used individually or in a mechanically refrigerated raft.</p> <p>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.</p> <p>d. The index letter "o" shall not be marked on wagons bearing the index letter "l".</p> <p>e. Only applicable to wagons with gauge of 1520 mm.</p> <p>Note: The floor area of covered refrigerator wagons is always determined taking into account the use of ice bunkers.</p>		

**CATEGORY LETTER: K - 2-AXLE FLAT WAGON**

Reference wagon		Of ordinary type with drop sides and short stanchions $lu \geq 12 \text{ m}; 25 \text{ t} \leq tu \leq 30 \text{ t}$
Index letters	b	with long stanchions
	g	fitted for the transport of containers <sup>a</sup>
	i	with removable cover and non-removable ends <sup>b</sup>
	j	with shock-absorbing device
	k	$tu < 20 \text{ t}$
	kk	$20 \text{ t} \leq tu < 25 \text{ t}$
	l	without stanchions
	m	$9 \text{ m} \leq lu < 12 \text{ m}$
	mm	$lu < 9 \text{ m}$
	n	$tu > 30 \text{ t}$
	o	with non-removable sides
	p	without sides <sup>b</sup>
	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 $lu \geq 12 \text{ m}; 25 \text{ t} \leq tu \leq 30 \text{ t}$
<b>Index letters</b>	b	with special fittings for securing purposes for medium-sized containers (pa) <sup>a</sup>
	c	with swivelling bolster <sup>a</sup>
	d	fitted out for the transport of motor cars, without deck <sup>a</sup>
	e	with decks for the transport of motor cars <sup>a</sup>
	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) <sup>a b</sup>
	h	fitted out for the transport of steel coils, eye to side <sup>a c</sup>
	hh	fitted out for the transport of steel coils, eye to sky <sup>a c</sup>
	i	with removable cover and non-removable ends <sup>a</sup>
	ii	with very robust removable metallic cover <sup>d</sup> and non-removable ends <sup>a</sup>
	j	with shock-absorbing device
	k	$tu < 20 \text{ t}$
	kk	$20 \text{ t} \leq tu < 25 \text{ t}$
	l	without stanchions <sup>a</sup>
	m	$9 \text{ m} \leq lu < 12 \text{ m}$
mm	$lu < 9 \text{ m}$	
n	$tu > 30 \text{ t}$	
p	without sides <sup>a</sup>	

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**

<i>Reference wagon</i>		<b>of ordinary type with 2 or 3 axles, with drop sides or ends and stanchions with 2 axles: <math>lu \geq 12</math> m; <math>25 t \leq tu \leq 30</math> t with 3 axles: <math>lu \geq 12</math> m; <math>25 t \leq tu \leq 40</math> t</b>
<b>Index letters</b>	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	$tu < 20$ t
	kk	$20 t \leq tu < 25$ t
	l	without stanchions
	m	$9 m \leq lu < 12$ m
	mm	$lu < 9$ m
n	with 2 axles: $tu > 30$ t with 3 axles: $tu > 40$ t	

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

<b>Reference wagon</b>		<b>of ordinary type with drop ends and stanchions <math>18 m \leq lu &lt; 22</math> m; <math>50 t \leq tu \leq 60</math> t</b>
<b>Index letters</b>	b	$lu \geq 22$ m
	e	with drop sides
	g	fitted for the transport of containers <sup>a</sup>
	h	fitted out for the transport of steel coils, eye to side <sup>b</sup>
	hh	fitted out for the transport of steel coils, eye to sky <sup>b</sup>
	i	with removable cover and non-removable ends <sup>c</sup>
	j	with shock-absorbing device
	k	$tu < 40$ t
	kk	$40 t \leq tu < 50$ t
	l	without stanchions
	m	$15 m \leq lu < 18$ m
	mm	$lu < 15$ m
	n	$tu > 60$ t
	o	with non-removable ends less than 2 m in height
	oo	with non-removable ends, 2 m or more in height <sup>c</sup>
p	without drop ends <sup>c</sup>	
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 LETTER: S - FLAT BOGIES WAGON**

Reference wagon		of special type with 4 axles: $lu \geq 18 \text{ m}$ ; $50 \text{ t} \leq tu \leq 60 \text{ t}$ with 6 axles or more: $lu \geq 22 \text{ m}$ ; $60 \text{ t} \leq tu \leq 75 \text{ t}$
Index letters	a	with 6 axles (2 bogies of 3 axles)
	aa	with 8 axles or more
	aaa	with 4 axles (2 bogies of 2 axles) <sup>a</sup>
	b	with special fittings for securing purposes for medium-sized containers (pa) <sup>b</sup>
	c	with swivelling bolster <sup>b</sup>
	d	fitted out for the transport of motor cars, without deck <sup>b c</sup>
	e	with decks for the transport of motor cars <sup>b</sup>
	f	suitable for traffic with Great Britain
	ff	suitable for traffic with Great Britain (by tunnel exclusively)
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)
	g	fitted for the transport of containers, total loading length $\leq 60'$ (except pa) <sup>b c d</sup>
	gg	fitted for the transport of containers, total loading length $> 60'$ (except pa) <sup>b c d</sup>
	h	fitted out for the transport of steel coils, eye to side <sup>b e</sup>
	hh	fitted out for the transport of steel coils, eye to sky <sup>b e</sup>
	hhh	fitted out transport of steel coils, eye longitudinal
	i	with removable cover and non-removable ends <sup>b</sup>
	ii	with very robust removable metallic cover <sup>f</sup> and non-removable ends <sup>b</sup>
	j	with shock-absorbing device
	k	with 4 axles: $tu < 40 \text{ t}$ with 6 axles or more: $tu < 50 \text{ t}$
	kk	with 4 axles: $40 \text{ t} \leq tu < 50 \text{ t}$ with 6 axles or more: $50 \text{ t} \leq tu < 60 \text{ t}$
l	without stanchions <sup>b</sup>	
m	with 4 axles: $15 \text{ m} \leq lu < 18 \text{ m}$ ; with 6 axles or more: $18 \text{ m} \leq lu < 22 \text{ m}$	
mm	with 4 axles: $lu < 15 \text{ m}$ with 6 axles or more: $lu < 18 \text{ m}$	
mmm	with 4 axles : $lu \geq 22 \text{ m}$ <sup>a</sup>	
n	with 4 axles: $tu > 60 \text{ t}$ with 6 axles or more: $tu > 75 \text{ t}$	
p	without sides <sup>b</sup>	
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		<p><b>with 2 axles: <math>9\text{ m} \leq lu &lt; 12\text{ m}</math>; <math>25\text{ t} \leq tu \leq 30\text{ t}</math></b></p> <p><b>with 4 axles: <math>15\text{ m} \leq lu &lt; 18\text{ m}</math>; <math>50\text{ t} \leq tu \leq 60\text{ t}</math></b></p> <p><b>with 6 axles or more: <math>15\text{ m} \leq lu &lt; 18\text{ m}</math>; <math>60\text{ t} \leq tu \leq 75\text{ t}</math></b></p>
Index letters	a	with 4 axles
	aa	with 6 axles or more
	b	high capacity: with 2 axles: $lu \geq 12\text{ m}$ with 4 axles or more: $lu \geq 18\text{ m}$ <sup>a b</sup>
	c	with end doors
	d	with controlled gravity unloading, on both sides, alternately, at the top <sup>a b c</sup>
	dd	with controlled gravity unloading, on both sides, alternately, at the bottom <sup>a b c</sup>
	e	with unobstructed height of the doors $> 1,90\text{ m}$ <sup>a b c</sup>
	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 <sup>a</sup>
	j	with shock-absorbing device
	k	with 2 axles: $tu < 20\text{ t}$ with 4 axles: $tu < 40\text{ t}$ with 6 axles or more: $tu < 50\text{ t}$
	kk	with 2 axles: $20\text{ t} \leq tu < 25\text{ t}$ with 4 axles: $40\text{ t} \leq tu < 50\text{ t}$ with 6 axles or more: $50\text{ t} \leq tu < 60\text{ t}$
	l	with bulk gravity unloading, on both sides, simultaneously, at the top <sup>a b c</sup>
	ll	with bulk gravity unloading, on both sides, simultaneously, at the bottom <sup>a b c</sup>
	m	with 2 axles: $lu < 9\text{ m}$ with 4 axles or more: $lu < 15\text{ m}$ <sup>b</sup>
n	with 2 axles: $tu > 30\text{ t}$ with 4 axles: $tu > 60\text{ t}$ with 6 axles or more: $tu > 75\text{ t}$	
o	with axial bulk gravity unloading, at the top <sup>a b c</sup>	
oo	with axial bulk gravity unloading, at the bottom <sup>a b c</sup>	
p	with axial controlled gravity unloading, at the top <sup>a b c</sup>	
pp	with axial controlled gravity unloading, at the bottom <sup>a b c</sup>	
<p>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", "j", "ll", "o", "oo", "p" ou "pp".</p> <p>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".</p> <p>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.</p>		

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

*Arrangement of the unloading apertures:*

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

*Rate of unloading:*

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

**CATEGORY LETTER: U - SPECIAL WAGONS**

<b>Reference wagon</b>	<b>other than those in categories F, H, L, S ou Z</b>	
	<b>with 2 axles: <math>25\ t \leq tu \leq 30\ t</math></b> <b>with 3 axles: <math>25\ t \leq tu \leq 40\ t</math></b> <b>with 4 axles: <math>50\ t \leq tu \leq 60\ t</math></b> <b>with 6 axles or more: <math>60\ t \leq tu \leq 75\ t</math></b>	
<b>Index letters</b>	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 <sup>a</sup>
	dd	with controlled gravity unloading, on both sides, alternately, at the bottom <sup>a</sup>
	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 <sup>b c</sup>
	k	with 2 or 3 axles: $tu < 20\ t$ with 4 axles: $tu < 40\ t$ with 6 axles or more: $tu < 50\ t$
	kk	with 2 or 3 axles: $20\ t \leq tu < 25\ t$ with 4 axles: $40\ t \leq tu < 50\ t$ with 6 axles or more: $50\ t \leq tu < 60\ t$
	l	with bulk gravity unloading, on both sides, simultaneously, at the top <sup>a</sup>
	ll	with bulk gravity unloading, on both sides, simultaneously, at the bottom <sup>a</sup>
	n	with 2 axles: $tu > 30\ t$ with 3 axles: $tu > 40\ t$ with 4 axles: $tu > 60\ t$ with 6 axles or more: $tu > 75\ t$ <sup>c</sup>
	o	with axial bulk gravity unloading, at the top <sup>a</sup>
oo	with axial bulk gravity unloading, at the bottom <sup>a</sup>	
p	with axial bulk gravity unloading, at the top <sup>a</sup>	
pp	with axial bulk gravity unloading, at the bottom <sup>a</sup>	
<p>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.</p> <p>b. In particular:</p> <ul style="list-style-type: none"> <li>- well wagons</li> <li>- wagons with a central recess</li> <li>- wagons with an ordinary sloping diagonal permanent control desk</li> </ul> <p>c. Index letter "n" shall not be marked on wagons bearing the index letter "i".</p>		

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**

<b>Reference wagon</b>	<b>with metal shell, for the transport of liquids or gases with 2 axles: 25 t ≤ lu ≤ 30 t with 3 axles: 25 t ≤ tu ≤ 40 t with 4 axles: 50 t ≤ tu ≤ 60 t with 6 axles or more: 60 t ≤ tu ≤ 75 t</b>	
<b>Index letters</b>	a	with 4 axles
	aa	with 6 axles or more
	b	for oil products <sup>a</sup>
	c	with unloading under pressure <sup>b</sup>
	d	for food and chemical products <sup>a</sup>
	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 <sup>b</sup>
	i	tank of non-metallic material
	j	with shock-absorbing device
	k	with 2 or 3 axles: tu < 20 t with 4 axles: tu < 40 t with 6 axles or more: tu < 50 t
kk	with 2 or 3 axles: 20 t ≤ tu < 25 t with 4 axles: 40 t ≤ tu < 50 t with 6 axles or more: 50 t ≤ tu < 60 t	
n	with 2 axles: tu > 30 t with 3 axles: tu > 40 t with 4 axles tu > 60 t with 6 axles or more: tu > 75 t	
p	with station for brakeman <sup>a</sup>	
<p>a. Only applicable to wagons with gauge of 1520 mm. b. The index letter "c" shall not be marked on wagons bearing the index letter "g".</p>		

## **Part 12 - Letter marking for wagons**

### **Part 12.2 - for articulated and multiple wagons**

#### **DEFINITION OF THE CATEGORY AND INDEX LETTERS**

##### **1. Important notes**

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

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

q	pipe for electric heating which can be supplied by all accepted currents
qq	pipe and installation for electric heating which can be supplied by all accepted currents
s	wagons authorised to run at 100 km/h
ss	wagons authorised to run at 120 km/h

##### **3. Index letters with a national value**

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

The value of these letters is defined by each Member State.



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

Reference wagon		Articulated or multiple wagon with axles, with 2 units $22\text{ m} \leq lu < 27\text{ m}$
Index letters	a	with bogies
	c	with controlled gravity unloading, on both sides, alternately, at the top <sup>a</sup>
	cc	with controlled gravity unloading, on both sides, alternately, at the bottom <sup>a</sup>
	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)
	l	with bulk gravity unloading, on both sides, simultaneously, at the top <sup>a</sup>
	ll	with bulk gravity unloading, on both sides, simultaneously, at the bottom <sup>a</sup>
	m	with 2 units: $lu \geq 27\text{ m}$
	mm	with 2 units: $lu < 22\text{ m}$
	o	with axial bulk gravity unloading, at the top <sup>a</sup>
	oo	with axial bulk gravity unloading, at the bottom <sup>a</sup>
	p	with axial controlled gravity unloading, at the top <sup>a</sup>
	pp	with axial controlled gravity unloading, at the bottom <sup>a</sup>
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 wagon		articulated or multiple wagon with axles, with 2 units $22\text{ m} \leq l_u < 27\text{ m}$
<b>Index letters</b>	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 <sup>a</sup>
	i	with opening or shunt walls
	ii	with very robust opening or shunt walls <sup>b</sup>
	l	with movable partitions <sup>c</sup>
	ll	with lockable movable partitions <sup>c</sup>
	m	with 2 units: $l_u \geq 27\text{ m}$
	mm	with 2 units: $l_u < 22\text{ m}$
r	articulated wagon	
rr	multiple wagon	
<p>a. The concept "for fruits and vegetables" applies only to wagons provided with additional ventilation apertures at the floor level.</p> <p>b. Only applicable to wagons with gauge of 1435 mm.</p> <p>c. Movable partitions may be dismantled temporarily.</p>		

**CATEGORY LETTER: I - TEMPERATURE CONTROLLED WAGON**

<b>Reference wagon</b>	<b>refrigerator wagon with class IN thermal insulation, with motor-driven ventilation, with gratings and ice bunker <math>\geq 3,5 \text{ m}^3</math> articulated or multiple wagon with axles, with 2 units <math>22 \text{ m} \leq \text{lu} &lt; 27 \text{ m}</math></b>	
<b>Index letters</b>	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 <sup>a</sup>
	gg	refrigerator with liquefied gas <sup>a</sup>
	h	with class IR thermal insulation
	i	mechanically refrigerated by the machinery of an accompanying technical wagon <sup>a b</sup>
	ii	accompanying technical wagon <sup>a b</sup>
	l	insulated without ice bunkers <sup>a c</sup>
	m	with 2 units: $\text{lu} \geq 27 \text{ m}$
	mm	with 2 units: $\text{lu} < 22 \text{ m}$
	o	with ice bunkers of capacity less than $3,5 \text{ m}^3$ <sup>c</sup>
	oo	with 3 units
	p	without gratings
	r	articulated wagon
	rr	multiple wagon
<p>a. The index letter "l" shall not be marked on wagons bearing the index letters "g", "gg", "i" or "ii".</p> <p>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.</p> <p>c. The index letter "o" shall not be marked on wagons bearing the index letter "l".</p>		

**CATEGORY LETTER: L - FLAT WAGON WITH SEPARATE AXLES**

Reference wagon	<b>articulated or multiple wagon with 2 units <math>22\text{ m} \leq lu &lt; 27\text{ m}</math></b>	
<b>Index letters</b>	a	articulated wagon
	aa	multiple wagon
	b	with special fittings for securing purposes for medium-sized containers (pa) <sup>a</sup>
	c	with swivelling bolster <sup>a</sup>
	d	fitted out for the transport of motor cars, without deck <sup>a</sup>
	e	with decks for the transport of motor cars <sup>a</sup>
	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 <sup>a b</sup>
	h	fitted out for the transport of steel coils, eye to side <sup>a c</sup>
	hh	fitted out for the transport of steel coils, eye to sky <sup>a c</sup>
	i	with removable cover and non-removable ends <sup>a</sup>
	ii	with very robust removable metallic cover <sup>d</sup> and non-removable ends <sup>a</sup>
	j	with shock-absorbing device
	l	without stanchions <sup>a</sup>
	m	with 2 units: $18\text{ m} \leq lu < 22\text{ m}$
	mm	with 2 units: $lu < 18\text{ m}$
o	with 3 units	
oo	with 4 units or more	
p	without sides <sup>a</sup>	
r	with 2 units: $lu \geq 27\text{ m}$	

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	<b>articulated or multiple wagon with 2 units <math>22\text{ m} \leq \text{lu} &lt; 27\text{ m}</math></b>	
<b>Index letters</b>	b	with special fittings for securing purposes for medium-sized containers (pa) <sup>a</sup>
	c	with swivelling bolster <sup>a</sup>
	d	fitted out for the transport of motor cars, without deck <sup>a b</sup>
	e	with decks for the transport of motor cars <sup>a</sup>
	f	suitable for traffic with Great Britain
	ff	suitable for traffic with Great Britain (by tunnel exclusively)
	fff	suitable for traffic with Great Britain (by train-ferry exclusively)
	g	fitted for the transport of containers, total loading length $\leq 60'$ (except pa) <sup>a b c</sup>
	gg	fitted for the transport of containers, total loading length $> 60'$ (except pa) <sup>a b c</sup>
	h	fitted out for the transport of steel coils, eye to side <sup>a d</sup>
	hh	fitted out for the transport of steel coils, eye to sky <sup>a d</sup>
	hhh	fitted out transport of steel coils, eye longitudinal
	i	with removable cover and non-removable ends <sup>a</sup>
	ii	with very robust removable metallic cover <sup>e</sup> and non-removable ends <sup>a</sup>
	j	with shock-absorbing device
	l	without stanchions <sup>a</sup>
	m	with 2 units: $\text{lu} \geq 27\text{ m}$
	mm	with 2 units: $\text{lu} < 22\text{ m}$
	o	with 3 units
oo	with 4 units or more	
p	without sides <sup>a</sup>	
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	<b>articulated or multiple wagon with axles, with 2 units <math>22\text{ m} \leq lu &lt; 27\text{ m}</math></b>	
<b>Index letters</b>	a	with bogies
	b	with unobstructed height of doors $> 1,90\text{ m}^a$
	c	with end doors
	d	with controlled gravity unloading, on both sides, alternately, at the top <sup>b</sup>
	dd	with controlled gravity unloading, on both sides, alternately, at the bottom <sup>a b</sup>
	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 <sup>a</sup>
	j	with shock-absorbing device
	l	with bulk gravity unloading, on both sides, simultaneously, at the top <sup>a b</sup>
	ll	with bulk gravity unloading, on both sides, simultaneously, at the bottom <sup>a b</sup>
	m	with 2 units: $lu \geq 27\text{ m}$
	mm	with 2 units: $lu < 22\text{ m}$
	o	with axial bulk gravity unloading, at the top <sup>a b</sup>
oo	with axial bulk gravity unloading, at the bottom <sup>a b</sup>	
p	with axial controlled gravity unloading, at the top <sup>a b</sup>	
pp	with axial controlled gravity unloading, at the bottom <sup>a b</sup>	
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:

*Arrangement of the unloading apertures:*

- axial: Apertures situated above the centre of the track

- bilateral: Apertures on either side of the track, outside the rails

(For these wagons, unloading is:

- simultaneous, if complete emptying of the wagon requires the apertures to be open on both sides,

- alternate, if complete emptying of the wagon can take place by opening the apertures on one side only)

- top: The lower edge of the discharge through (without taking into account mobile devices which may extend this through) is situated at least 0.700 m above the rail, and allows for the use of a conveyor belt to take away the goods

- bottom: The position of the lower edge of the discharge through does not allow for the use of a conveyor belt to take away the goods

*Rate of unloading:*

- bulk: Once the apertures are open for unloading, they cannot be closed again until the wagon is empty

- controlled: At any time during unloading, the flow of the goods can be regulated or even stopped

**CATEGORY LETTER: U - SPECIAL WAGONS**

Reference wagon		<i>articulated or multiple wagon, with axles, with 2 units <math>22\text{ m} \leq lu &lt; 27\text{ m}</math></i>
<b>Index letters</b>	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 <sup>a</sup>
	dd	with controlled gravity unloading, on both sides, alternately, at the bottom <sup>a</sup>
	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 <sup>b</sup>
	l	with bulk gravity unloading, on both sides, simultaneously, at the top <sup>a</sup>
	ll	with bulk gravity unloading, on both sides, simultaneously, at the bottom <sup>a</sup>
	m	with 2 units: $lu \geq 27\text{ m}$
	mm	with 2 units: $lu < 22\text{ m}$
	o	with axial bulk gravity unloading, at the top <sup>a</sup>
	oo	with axial bulk gravity unloading, at the bottom <sup>a b</sup>
	p	with axial controlled gravity unloading, at the top <sup>a</sup>
pp	with axial controlled gravity unloading, at the bottom <sup>a</sup>	
r	articulated wagon	
rr	multiple wagon	
<p>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.</p> <p>b. In particular:</p> <ul style="list-style-type: none"> <li>- well wagons</li> <li>- wagons with a central recess</li> <li>- wagons with an ordinary sloping diagonal permanent control desk</li> </ul>		
<p>The method of unloading these wagons is defined by a combination of the following characteristics:</p> <p><i>Arrangement of the unloading apertures:</i></p> <ul style="list-style-type: none"> <li>- axial: Apertures situated above the centre of the track</li> <li>- bilateral: Apertures on either side of the track, outside the rails. (For these wagons, unloading is: <ul style="list-style-type: none"> <li>- simultaneous, if complete emptying of the wagon requires the apertures to be open on both sides,</li> <li>- alternate, if complete emptying of the wagon can take place by opening the apertures on one side only)</li> </ul> </li> <li>- 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</li> <li>- 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</li> </ul> <p><i>Rate of unloading:</i></p> <ul style="list-style-type: none"> <li>- bulk: Once the apertures are open for unloading, they cannot be closed again until the wagon is empty</li> <li>- controlled: At any time during unloading, the flow of the goods can be regulated or even stopped</li> </ul>		

**CATEGORY LETTER: Z - TANK WAGON**

<b>Reference wagon</b>		<b>with metal shell, for the transport of liquids or gases articulated or multiple wagon with axles, with 2 units <math>22\text{ m} \leq lu &lt; 27\text{ m}</math></b>
<b>Index letters</b>	a	with bogies
	c	with unloading under pressure <sup>a</sup>
	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 <sup>a</sup>
	i	tank of non-metallic material
	j	with shock-absorbing device
	m	with 2 units: $lu \geq 27\text{ m}$
	mm	with 2 units: $lu < 22\text{ m}$
	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".		