	Directive 96/53/EC Directive (EU) 2015/719	CSC	ISO 830	ISO 6346	ISO 668	ISO 1496-1	ISO 1496-2	ISO 1496-3	ISO 1496-4	ISO 1496-5	IRS 50562 Type 1.1	IRS 50056-4	UIC	Loading Guidelines Volume 1	Loading Guidelines Volume 2
		N/A													
Design markings		N/A				M: Maximum permissible payload; M: Maximum operating weight or Rating; T: Tare weight	M: Maximum permissible payload; M: Permissible total mass of the box; T: Tare mass;	M: Maximum permissible payload; M: Permissible total mass of the box; T: Tare mass;	M: Maximum permissible payload; M: Permissible total mass of the box; T: Tare mass;	M: Maximum permissible payload; M: Permissible total mass of the box; T: Tare mass;	Rg: Maximum permissible payload; Rg: Maximum operating weight or Rating; Ta: Tare weight		N/A	N/A	N/A
Identification		N/A											N/A	N/A	N/A
Markings		N/A	N/A										N/A	N/A	N/A
Maintenance		N/A											N/A	N/A	N/A
Operational control		N/A											N/A		
Examination		N/A										According to ISO 6346		N/A	N/A	N/A
First approval		N/A											N/A	N/A	N/A

	Parameters	Containers	Semitrailers
1	Définitions	X	X
2	Classification	X	X
3	Dimensions	X	X
3.1	*External dimensions*	X	X
3.2	*Internal dimensions*	X	X
4	Ratings	X	X
5	Load transfer area	X	
6	Intermediate support: dimensions and location	X	
7	Dimentions and position of gooseneck tunnel	X	
8	Upper and bottom fittigs	X	X
8.1	Dimensions and position of top corner fittings	X	X
8.2	Dimensions and position of bottom corner fittings	X	
8.3	Technical requirements	X	X
9	Dimensions and position of the grappler arms area	X	X
10	Landing gear		X
11	Dimensions and locations of fork-lifts pockets	X	
12	Dimensions and position of the slinging apertures	X	
13	Front stop (at the front end wall)		
14	Front fittings in the front face of the ILU	X	
15	Envelope		X
15.1	*Lower part*		X
15.2	*Upper part*		X
16	King pin		X
17	Steering wedge		X
18	Axle assembly and Suspension		X
19	Body structure	X	X
20	Tarpaulins	X	X
21	Ladders	X	X
22	Walkways	X	X
23	Dimensions and position of Supporting shoes (N technology)		X
24	Cargo securing	X	X
24.1	*Anchor and lashing points*	X	X
24.2	*Shoring slots*	X	
25	Load restraint and lashing devices for cargo securing	X	X
26	Interface between chassis and ILU		
27	Refrigeration and heating equipment	X	X
28	Thermal characteristics of the isothermal body		X
29	Devices for hanging cargo		X
30	Tank characteristics	X	
31	Electrical aspects	X	
32	Interlocked pile of folded containers	X	
100	Test	X	X
101	General	X	X
102	Stacking	X	

103	Lifting		
103.1	*Lifting from the grappler arms pockets*	X	X
103.2	*Liifting from the four upper fittings*	X	X
103.3	*Lifting from the four bottom fittings*	X	
103.4	*Lifting from the slinging apertures*	X	
103.5	*Lifting from fork-lift pockets*	X	
104	External restraint (longitudinal)	X	
104.1	*Static tests*		
104.2	*Dynamic tests*		
105	Internal resraint (longitudinal)	X	
106	Internal restraint (lateral)	X	
107	Rigidity (longitudinal)	X	
108	Rigidity (transversal)	X	
109	Strength of end walls	X	X
109.1	*Static test*	X	X
109.2	*Dynamic test*	X	X
110	Strength of side walls	X	X
110.1	*Static test*	X	X
110.2	*Dynamic test*	X	X
111	Strength of the ILU body structure		X
112	Strength of the roof	X	X
113	Test on tarpaulins		
114	Floor strength	X	X
115	Test of the stability of the ILU standing on its support legs		
116	Test of support legs		
117	Test of ladders	X	X
118	Test of walkways	X	X
119	Pressure test	X	X
120	Test of shoring slots	X	
121	Load transfer area test	X	
122	Test of supporting shoes (N technology)		X
123	Waterproofness	X	X
124	Test of lashing points for cargo secuity	X	X
125	Tests of the refrigeration/heating unit performances	X	
125.1	*Perfomance and functional tests*	X	
125.2	*Energy consumption*	X	
126	Test on the refrigeration/heating unit attachments	X	
127	Test of thermal characterisics	X	
127.1	*Heat leakage tests*	X	
127.2	*Airtightness test*	X	
128	Test to be performed when the ILU is quipped with devices for hanging cargo		
129	Cocluding test and Specific tests for roller units		
200	Design loadings	X	X
300	Identification & markings	X	X
300.1	*Identification*	X	X

300.2	*Operational Markings*		X	X
400	Maintenance		X	X
500	Operational control		X	X
600	Certification		X	X
600.1	*Codification*		X	X
600.2	*ILUs approval*		X	X
600.3	*Coding plate delivery*			X
600.4	*Vehicle type authorisation*			
700	Route compatibility assessment			
700.1	*Allocation of the correction digit*			
1000	General			
1001	Interoperability essential requirements an fubctional and technical specifications			
1002	Payload			
1002.1	*Axle load*			
1002.2	*Minimun axle load*			
1003	Structural requirements of wagon bodies			
1004	Braking equipment			
1005	Shunting conditions			
1006	Buffers and coupling			
1007	Digital Automatic Coupling			
1008	Conveyance of wagons on ferries			
1100	Specific parameters for wagons for the conveyance of semi-trailers (vertical transhipment)			
1101	Loading position of the semi-trailer			
1102	Wagon envelope			
1102.1	*Dimensions*			
1102.2	*Compatibility with the semi-trailer envelope*			
1103	Intermediate support			
1104	Seating device			
1104.1	*Position*			
1104.2	*Height*			
1104.3	*Width*			
1104.4	*Compatibility with the semi-trailer king pin*			
1104.5	*Compatibility with the semi-trailer steering wedge*			
1104.6	*Locking device*			
1104.7	*Viibility of the locking state during the conveyance of semi-trailers*			
1105	Bearing plates			
1105.1	*Dimensions*			
1105.2	*Location*			
1200	Specific parameters for the conveyance of ISO containers and swap bodies			
1201	Spigots			
1201.1	*Types*			

Swap bodies	Roller units	Wagons	Lines
X	X	X	X
X	X		
X	X		
X	X		
X	X		
X	X		
X			
X			
X			
X	X		
X	X		
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X	X		X
X	X		X
		X	X
X	X		X

Semitrailers

Parameters		Directive 96/53/EC / Directive (EU) 2015/719	EN 16973	EN 12640	EN 12641-1	EN 12641-2	EN 12642	EN 13044-1	EN 13044-3	EN 12195-1	EN 12195-2, EN 12195-3 and EN 12195-4	IRS 50596-5 (F)	IRS 50596-5 (N)	IRS 50596-6	IRS 50596-7	GCU	Loading Guidelines Vol 1	Loading Guidelines Vol 2
1	Definitions	X	**Directive 96/53/EC** Article 2 gives the definitions of: - Semitrailer, - Maximum authorized dimensions, - Maximum authorized weight, - Maximum authorized axle weight. **Directive 2015/719** Article 1 adds the definition of: - Intermodal transport operation (ref one or more bodies or containers…)	The definition of: Semitrailer is given in point 1 (Scope). The definitions of: - Grappler arm, - Pocket wagon, - Swept envelope, - Vertical transshipment are given in Point 3 (Terms and definitions)	The definitions of: - Cargo Transport Unit - Corgo securing devices - Lashing angles - Longitudinal lashing angle - Transverse lashing angle - Vertical lashing angle - Transverse lashing angle - Vertical lashing angle - Multiple-point lashing systems are given in Point 3 (Terms and definitions)	The definition of: - Intermodal Loading Unit is given in Point 3 (Terms and definitions)	The definitions of: - Intermodal Loading Unit - Side curtains - standard vehicle body are given in Point 3 (Terms and definitions)	The definitions which - reinforced vehicle body - standard vehicle body are given in Point 3 (Terms and definitions)	Intermodal Loading Unit Owner code	Intermodal Loading Unit	Lashing (Point 3.1.1) Lashing device (Point 3.1.2) Lashing point (Point 3.1.6) Load carrier (Point 3.1.14) Longitudinal force created by the load (Point 3.2.4) Transversal force created by the load (Point 3.2.5) Vertical force created by the load (Point 3.2.6)	Web lashing made from man-made fibres (EN 12195-2) Lashing chains (EN 12195-3) Lashing steel wire ropes (EN 12195-4)	P = Semi-trailers which can be loaded on pocket wagons with **seating device** and compliant with one or more envelopes (Appendices F.1 + F.9) N = Semi-trailers which can be loaded on pocket wagons fitted with **supporting shoes** and compliant with the envelope defined in Appendix C.		Terms and definitions: - Intermodal Loading Unit (ILU), - Combined Transport Profile (CTP), - Combined Transport Profile Number (CTP no.), - Envelope Compatibility Code, - Technical Number (TN), - Wagon Compatibility Code (WCC).	Like IRS 50596-5 and RS 50596-6, 50596-7, GCU and UIC Loading Guidelines describe semi-trailers as 'ILUs that are able to be transported by rail loaded on pocket-wagons, are suitable for handling by gantry or mobile transhipment equipment and equipped with grappler arm grooves and upper fittings (this last requirement is present only in IRS 50596-5).		**Chapter 9**, Combined transport load units - Combined Transport
2	Classification	X	This Directives apply to the dimensions and weight of motor vehicles in categories N2 and N3 and their semi-trailers in categories 03 and 04, as defined in Annex II to Council Directive 70/156/EEC of 6 February 1970.	No Requirement	Points 3.6.1 and 4.5 Single lashing points Points 3.6.2 and 4.5 Multi-point lashing systems Point 4.6 Lashing points in the front wall Point 4.7 Optional single points or multi-points lashing systems	No Requirement	No Requirement		NA	NA	Code L: standard vehicle body (Point 3.1) Code XL: reinforced vehicle body (Point 3.2)	No Requirement	No Requirement	**Point 1.3.1** (Compatibility code) Semitrailers are classified considering their compatibility with carrying wagons. A compatibility code (a,b,c,d,e,f,g,h,i) has been attributed to each envelope (Appendices F.1 + F.9) a = envelope for P semi-trailers compatibles with type 4 pocket wagon with seating device 113 or 98 cm high b = envelope for P semi-trailers compatibles with pocket wagon types BA 739 and 744 with seating device 113 or 98 cm high c = envelope for P semi-trailers compatibles with type 2000 pocket wagon with seating device 113 or 98 cm high d = envelope for P semi-trailers compatibles with Mega 2 type pocket wagon with seating device 113, 98 or 85 cm high e = envelope for P semi-trailers compatibles with type 5 pocket wagon with seating device 113, 98 or 88 cm high f = envelope for P semi-trailers compatibles with type 3000 pocket wagon with seating device 113, 98 or 88 cm high g = envelope for P semi-trailers compatibles with Twin type pocket wagon with seating device 113, 98 or 88 cm high h = envelope for P semi-trailers compatibles with type 4.2 pocket wagon with seating device 113 or 98 cm high i = envelope for P semi-trailers compatibles with type MTW pocket wagon with seating device 113, 98 or 88 cm high	no requirement	**Point 3.1, Table 1:** Wagon Compatibility Code (WCC) N: Pocket wagon compliant with IRS 50571-4, with the reference recess wagon envelope provided by IRS 50596-6, Appendix C as well as the limit curve shown in IRS 50596-6, Appendix A.3. P: Pocket-wagon fitted with a seating device and compliant with the reference pocket-wagon envelope as well as the limit curve shown in IRS 50596-6, Appendix A.3. P and Envelop Compatibility code: Pocket wagon compliant with IRS 50571-4, fitted with a a seating device and with an envelope compatible with the semi-trailer envelopes provided by IRS 50596-6 (Appendices F.1 to F.9) as well as the limit curve shown in IRS 50596-6, Appendix A.3. **Point 1.4:** Combined Transport Profile number (CTPno) CTP no. consists of - 2 digits in case of semi-trailers up to a maximum width of 2.50 m or - 3 digits in case of semi-trailer wider than 2.50 m but not wider than 2.60 m. **Point 2.1.3** Technical Number (TN) TN may consist of: - the letter N or P and the CTP no defined on the basis of Appendix B (Standard option) or - the letter S and the CTP no defined on the basis of Appendix D (Special option). Special option is mandatory for traffic with Great Britain.	NA	NA	NA	**Point 9.4:** Semi-trailers for loading on 'P' and 'P' + Envelope compatibility code' pocket wagons **Point 9.4.1:** Semi-trailers for loading on 'N' pocket wagons
3	Dimensions	X	**Directive 96/53/EC** Annex I Point 1.1: Maximum length of articulated vehicles = 16,50 m Point 1.6: Maximum distance between the axis of the king pin and the rear of the semi-trailer = 12,00 m **Directive 2015/719** Article 10 adds the following requirements for vehicles carrying one or more swap bodies and ISO containers up to L'ist L 45 feet: - Maximum length of articulated vehicles = 16,65 m - Maximum distance between the axis of the king pin and the rear of the semi-trailer = 12,15 m Point 8b: Vehicles or vehicle combinations which are equipped with aerodynamic devices may exceed the maximum lengths provided for in point 1.1 of Annex I to this Directive by 0,50 m.	**Point 4.1** (swept envelope) The semi-trailer may be constructed up to the dimensions showed in Figure 1	NA	NA	NA	NA	NA	NA	NA	NA	Semi-trailers shall comply with: - the road traffic regulations applicable in the Countries where they are registered; - a defined clearance envelope and - TC profiles		NA	NA	NA		
3.1	External dimensions	X			NA	NA	NA	NA	NA	NA	NA	NA	**Lower part:** Free space (gooseneck contour) according ISO 1726-1 and ISO 1726-2. See also comments on parameter 15. **Upper part** Vertical dimensions: edge height and overall height shall be defined in accordance with the selected track profile as per UIC 596-6 (see also comments on parameter 15). Transverse dimensions: the following values are allowed (Figure 1): - 2500 mm, - 2550 mm, - 2600 mm. Longitudinal dimensions: see comments on parameter 15.	**Lower part:** Free space (gooseneck contour) according ISO 1726-1 and ISO 1726-2. See also comments on parameter 15. **Upper part** Vertical dimensions: edge height and overall height shall be defined in accordance with the selected track profile as per UIC 596 (see also comments on parameter 15). Transverse dimensions: the following values are allowed (Appendix C): - 2550 mm, - 2600 mm. Longitudinal dimensions: see comments on parameter 15. **Point 2.2.2 (Coupling pin – last axle distance):** the distance between the coupling pin and the last axle shall be 7659 mm = 10174 mm.	NA	NA	NA	NA	NA
3.2	Internal dimensions	X	no requirement										no requirement					
4	Ratings	X	**Directive 96/53/EC** Annex I, point 2 Maximum authorized weight of articulated vehicles (M+ST) 2 M + 3 ST = 40 t 3 M + 2/3 ST = 40 t When carrying one 40 feet ISO container 3 M + 2/3 ST = 44 t Annex I, point 3 Maximum authorized axle weight **Directive 2015/719** Maximum authorized weight of articulated vehicles (M+ST) carrying one or more swap bodies and ISO containers up to L'ist L 45 feet: 2 M + 3 ST = 42 t 3 M + 2/3 ST = 44 t	no requirement	NA	NA	NA	NA	NA	NA	NA	NA	no requirement		NA	NA	NA		NA
8	Upper and bottom fittings												**Point 1.2.1** - Grab handling grooves and upper corner fittings Alternatively, to grab handling grooves, semi-trailers may be provided with upper corner fittings, which shall comply with the requirements of IRS 50592. The position of the fittings is described in Appendix A.3.						
8.1	Dimensions and position of the four upper fittings	(X)	NA	no requirement	NA	NA	NA	NA	NA	NA	NA				NA	NA	NA	NA
8.3	Technical requirements		NA	no requirement									ISO 1161		NA	NA	NA	NA	NA
9	Dimensions and position of the grappler arms grooves	X	NA	**Point 4.4.1** (Dimensions and positioning of the grappler pockets) Dimensions: compliance with Figure 2 Positioning: compliance with Figure 3	NA	NA	NA	NA	NA	NA	NA		**Point 1.2.1:** Dimensions and upper corner fittings For transshipment, semi-trailers shall be equipped with grab handling grooves, the positions, dimensions, and shape of which conform to Appendix A.1 and Appendix A.2		NA	NA	NA	NA	NA
10	Landing gear	X	NA	no requirement	NA	NA	NA	NA	NA	NA	NA		**Point 1.2.7:** Landing gears It shall be possible to operate the landing gear when the grab handles are in the grab handling grooves.		NA	NA	NA	NA	NA
15	Envelope	X	NA	Semi-trailer (maximum load and air-suspension in lower position) in the stipulated loading position on the pocket wagon may not exceed the swept envelope showed in Figure 1. The clearances between the semi-trailer and the pocket wagon that are necessary to ensure a damage-free transshipment and transport are contained in the swept envelope.									Semi-trailer (maximum load and air-suspension in lower position) in the stipulated loading position on the compatible pocket wagon shall not exceed the envelopes showed in Appendices F.1 + F.9. The clearances between the semi-trailer and the compatible pocket wagon that are necessary to ensure a damage-free transshipment and transport are contained in the envelopes.						
15.1	Lower part	X	NA	In its stipulated loaded position, the lower part of the semi-trailer may not exceed the lower swept envelope showed in Figure 1. Vehicle components may be movable and shall be secured to ensure that they don't swing out or fall out during transshipment and journey.	NA	NA	NA	NA	NA	NA	NA		For each semi-trailer type identified by an envelope compatibility code from (a) + (i) the Appendices F.1 + F.9 show: - the lower envelope limit (longitudinal and transversal) - the lower envelope limit (longitudinal and transversal) of parts fixed to the semi-trailers. In its stipulated loaded position, the lower part of the semi-trailer shall not exceed the lower envelope limits. Vehicle components may be movable and shall be secured to ensure that they don't swing out or fall out during transshipment and journey.	**Appendix C** shows: - the lower envelope limit (longitudinal and transversal), - the lower envelope limit (longitudinal and transversal) of parts fixed to the semi-trailers. In its stipulated loaded position, the lower part of the semi-trailer shall not exceed the lower envelope limits. Vehicle components may be movable and shall be secured to ensure that they do not swing out or fall out during transshipment and journey.	NA	NA	NA	NA	NA
15.2	Upper part	X	NA	Upper part of the envelope in accordance with UIC Leaflet 596-6 (recommended).	NA	NA	NA	NA	NA	NA	NA		For each semi-trailer type identified by an envelope compatibility code from (a) + (i) the Appendices F.1 + F.9 show: - the upper envelope limits (longitudinal and transversal). In its stipulated loaded position on a compatible pocket-wagon, the upper part of the semi-trailer shall not exceed the upper envelope limits. The upper part of the semi-trailer gauge in accordance with IRS 50596-6 (mandatory).	**Appendix C** shows the upper envelope limit (longitudinal and transversal) for semi-trailers. In its stipulated loaded position, the upper part of the semi-trailer shall not exceed the upper envelope limits. The upper part of the semi-trailer gauge in accordance with IRS 50596-6 (mandatory).	NA	NA	NA	NA	NA
16	King pin	X	NA	**Point 4.2** (king pin) Diameter: 2 inches. D value: 162 kN at least. (ref. Directive 94/20/EC: 2014)	NA	NA	NA	NA	NA	NA	NA		**Point 1.2.2** (king pin) Diameter: 2 inches. Compliance with - Directive 94/20/EC: 2014, class H50; - ISO 337.	**Point 2.2.2** (Coupling pin - last axle distance) The distance between the coupling pin and the last axle shall be 7 659 mm 10 174 mm. **Appendix C** K2 1212 type. Diameter: 2 inches. D value: 162 kN at least.	NA	NA	NA	NA	NA
17	Steering wedge	X	NA	**Point 4.2** (king pin) Compliant with UN/ECE Regulation No 55	NA	NA	NA	NA	NA	NA	NA		**Point 1.2.3** (axle assembly) Compliant with Directive 94/20/EC: 2014. It shall be indicated on the semi-trailer in accordance with Appendix 1, point 1.2.		NA	NA	NA	NA	NA

Semitrailers

Parameters			Directive 96/53/EC / Directive (EU) 2015/719	EN 16973	EN 12640	EN 12641-1	EN 12641-2	EN 12642	EN 13044-1	EN 13044-3	EN 12195-1	EN 12195-2, EN 12195-3 and EN 12195-4	IRS 50598-8 (F)	IRS 50598-8 (N)	IRS 50598-6	IRS 50598-7	GCU	Loading Guidelines Volume 1	Loading Guidelines Volume 2
18	Axle assembly and Suspension	X	NA	Point 4.3 (air suspension) Semi-trailers shall be equipped with air suspensions. Axle assembly shall be suitable for vertical transhipment. Operation: transhipment and transport shall be performed with air suspension in lowest position and brake disengaged.	NA	NA	NA	NA	NA	NA	NA	NA	Point 1.2.3 (axle assembly) The axle assembly shall be suitable for vertical transhipment of semi-trailers. There shall be a device for releasing the brakes. The device shall be located on the left side of the vehicle, near the axle assembly. Point 1.2.4 (Air suspension) Semi-trailers shall be equipped with air suspension. Central draining valve on the left side of the vehicle, the service (running) and draining positions of which should be clearly marked by symbols. The drained air suspension system shall not refill during transport. The suspension shall be designed such that it is not damaged during transhipment.	Point 1.2.3 (axle assembly) The axle assembly shall be suitable for vertical transhipment of semi-trailers. There shall be a device for releasing the brakes. The device shall be located on the left side of the vehicle, near the axle assembly. Point 1.2.4 (Air suspension) Semi-trailers shall be equipped with air suspension. Central draining valve on the left side of the vehicle, the service (running) and draining positions of which should be clearly marked by symbols. The drained air suspension system shall not refill during transport. The suspension shall be designed such that it is not damaged during transhipment. Point 2.2.3 (Suspension) Semi-trailers shall be air-sprung. The air suspension should deflate automatically before being loaded onto the wagon.	NA	NA	NA	NA	NA
19	Body structure	X	NA	Point 4.5 Reference to UIC Leaflet 596-5	NA	NA	NA	A calculation for the complete system consisting of front, rear and side walls, roof and floor is necessary for the entire structure even if individual components have been taken from sample structures which have been calculated or tested with positive results before. This Standard applies to the following types of body structures: - box type - drop side body with side and tail boards without tarpaulin cover - drop side body with side and tail boards with tarpaulin cover	NA	NA	NA	NA	Point 1.2.8.2: Vehicle body structures compliant with EN 12642 code XL. Securing devices for roofing and tarpaulins designed in order not to open during the transport. - Each of the roof braces secures the tarpaulin with a distributed force of at least 3,75 kN. - In order to distribute the force, this may be achieved by securing the tarpaulin to the braces at 5 fastening points, each with a minimum strength of 750N. On semi-trailers whose roof is height-adjustable for loading purposes, the roof support pillars have a mechanical locking system which ensures that the roof cannot exceed the maximum permitted height during transit.		NA	NA	NA	NA	NA
20	Tarpaulins	X	NA	Bibliography: Ref. EN 12641-1 and EN 12641-2	NA	Point 4 provides minimum requirements for the strength and attachment of tarpaulins used on semi-trailers for road and road/rail combined transport: - Materials (Point 4.2) - Construction of tarpaulins (Point 4.3) - Fixation of tarpaulins (Point 4.5): To fulfil customs regulation, except for the area around the stanchions, the distance between eyelets shall be no greater than 200 mm (horizontally and vertically). In the region of the stanchions, the distance may increase but shall be no more than 300 mm. This points lists also the types of permissible ropes.	Point 4 gives the requirements for: - Materials (Point 4.2), - Tarpaulins reinforcements (Point 4.3), - Belt hooks (Point 4.4), - Vertical tensioning devices (Point 4.4), - Horizontal tensioning devices (Point 4.5).	NA	NA	NA	NA	NA	Point 1.2.8.1 Semi-trailers with tarpaulins and tension belts: - Tarpaulins and tension belt shall meet the strength and securing conditions defined in EN 12641-1 and EN 12641-2. - Mandatory use of tensioning systems (ratchet and belts) tested as per EN 12641-2. Semi-trailers with side walls and tarpaulins: - Tarpaulins shall meet the strength and securing conditions defined in EN 12641-1. - Tension belt and locks shall be compliant with EN 12641-2. Semi-trailers with height-adjustable tarpaulins: - These shall meet the strength and securing conditions defined in EN 12641-1. - Tensioning closures shall be compliant with EN 12642-2 (maximum distance between two tensioner 1200 mm). - Mandatory equipment of roof columns with a mechanical safety device ensuring that the roof does not exceed the maximum permitted height. Elastic tarpaulins fastenings not allowed		NA	NA	NA	NA	NA
21	Ladders	X	NA	No requirement	NA	NA	NA	NA	NA	NA	NA	NA	No requirement		NA	NA	NA	NA	NA
22	Walkways	X	NA	No requirement	NA	NA	NA	NA	NA	NA	NA	NA	No requirement		NA	NA	NA	NA	NA
23	Dimensions and position of Supporting shoes (N technology)	X	NA	No requirement	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2.1 - Supporting shoes Semi-trailers should be fitted at the front with 2 supporting shoes in accordance with Appendix D. If the shoes are retractable, they should be locked in the active position by means of an appropriate device. Appendix C: Dimensions and position Appendix D: Space to be left clear for spigots as per ISO 1161	NA	NA	NA	NA	NA
24.1	Anchor and Lashing points for cargo securing	X	NA	No requirement	Point 4 (Requirements) - Single lashing points design (Point 4.2) - Multi-point lashing systems design (Point 4.3) - Lashing points strength (Point 4.4) - Number and layout of lashing points (Point 4.5) - Lashing points in the front wall (Point 4.6) - Optional single lashing points or multi-point lashing systems (Point 4.7)	NA	NA	No requirement	NA	NA	NA	NA	No requirement		NA	NA	NA	NA	NA
25	Load restraint & Lashing devices for cargo securing		NA	No requirement	Lashing devices as described in - EN 12195-2: Web lashing made from man-made fibres - EN 12195-3: Lashing chains - EN 12195-4: Lashing steel wire ropes	NA	NA	NA	NA	NA	Point 4.3, Table 3: Acceleration values for the cargo on semi-trailers during rail transport Longitudinal direction: 1.0g (sliding) / 0.6g (tilting) Transversal direction: 0.5g Vertical direction: Longitudinal: 1.0g (sliding) / 0.6g (tilting) Transversal: 0.7g (sliding) / 1.0g (tilting) Points 5 and 6: Method of calculation Point 7: Test requirements	EN 12195-2: - specifies safety requirements for web lashing made from man-made fibres with flat woven webbings for multiple use and of lashing combinations with woven webbings for the safe surface transport of goods on road vehicles, e.g. semi-trailers which can be loaded on pocket wagons; - includes only tensioning devices to be hand driven with a maximum hand force of 500 N; - specifies methods for testing of web lashing for securing of loads; - deals with the significant hazards which could occur when web lashings are in use as intended and under conditions foreseen by the manufacturer (Point 4 and Annex A). EN 12195-3: - specifies safety requirements for lashing chains and lashing combinations with chain for the safe surface transport of goods on load carriers, e.g. semi-trailers which can be loaded on pocket wagons; - includes only tensioning devices to be hand driven with a maximum hand force of 500 N; - deals with hazards which could occur when lashing chains are in use as intended and under conditions foreseen by the manufacturer (see clause 4 and Annex A). EN 12195-4: - specifies safety requirements for lashing steel wire ropes and flat lashing steel wire ropes and lashing combinations with lashing steel wire ropes for the safe surface transport of loads on load carriers, e.g. semi-trailers which can be loaded on pocket wagons; - provides procedures for testing lashing steel wire ropes and flat lashing steel wire ropes; - deals with hazards which could occur when lashing steel wire ropes and flat lashing steel wire ropes are in use as intended and under conditions foreseen by the manufacturer	No requirement		NA	NA	NA	NA	Lashing devices as described in - EN 12195-1: Calculation of securing force - EN 12195-2: Web lashing made from man-made fibres - EN 12195-3: Lashing chains - EN 12195-4: Lashing steel wire ropes
27	Refrigeration and heating equipment	X	NA	No requirement	NA	NA	NA	NA	NA	NA	NA	NA	No requirement		NA	NA	AN	AN	AN
28	Thermal characteristics of the isothermal body	X	NA	No requirement	NA	NA	NA	NA	NA	NA	NA	NA	No requirement		NA	NA	AN	AN	AN
29	Devices for hanging cargo	X	NA	No requirement	NA	NA	NA	NA	NA	NA	NA	NA	No requirement		NA	NA	AN	AN	AN
100	Test	X	NA	See parameters 103 to 123	Point 6: Testing	Point 4.2, Table 1	Point 4.2, Table 1	Point 5 - Testing	NA	NA	NA	Point 6 of EN 12195-2, EN 12195-3 and 12195-4	See parameters 103 to 123		AN	AN	AN	AN	AN
101	General	X	NA	No specific requirement	NA	NA	NA	Point 5.1	NA	NA	NA	Point 6.1 of EN 12195-2, EN 12195-3 and 12195-4	See parameters 103 to 123		NA	NA	NA	NA	NA
103	Lifting		NA	FEM calculation allowed. Mandatory verification by practical tests. After the test, the semi-trailer shall not exhibit any permanent deformations or other changes which would make it impossible to use it in accordance with regulations; the dimensions required for handling, securing and transhipment shall be maintained.	NA	NA	NA	NA	NA	NA	NA	NA	The lifting strength may be assessed through actual technical tests and/or calculations based on verifiable procedures (i.e. FEM). Following the test, the semi-trailer must not show any permanent deformations or other irregularities which would prevent it from being used as intended; the semi-trailer must remain compliant with the measurement requirements for manipulation, securing and transhipment.		NA	NA	NA	NA	NA
103.1	Lifting from the grapple arms pockets	X		Point 4.4.2 (Lifting strength) Test Load: 1,25 R for at least 5 minutes (R=permissible total weight of the semi-trailer)									Point 1.2.8.1 (Lifting) Test Load: 1.25 R for at least 5 minutes (R=permissible total weight of the semi-trailer)						
103.2	Lifting from the four upper upper fittings	(X)		No requirement									Point 1.2.8.1 (Lifting) Test Load: 1.25 R for at least 5 minutes (R=permissible total weight of the semi-trailer)						
109	Strength of end walls		NA	Point 4.5 Reference to UIC Leaflet 596-5									Point 1.2.8.2: As parts of the semi-trailer's body structure, front, end and side walls shall be tested in accordance with EN 12642, Code XL.		NA	NA	NA	NA	NA
109.1	Front wall (static and dynamic tests)	X	NA		NA	NA	NA	Code XL Static test Point 5.2.1: 0.5 Pxg (without max. limit) applied for at least 5 min. Point 5.2.3 and Annex A: Test method Dinamic test Point 5.3.1: 0.8 g Annex B: Test method	NA	NA	NA	NA			NA	NA	NA	NA	NA
109.2	Rear wall (static and dynamic tests)	X	NA		NA	NA	NA	Code XL Static test Point 5.2.1: 0.3 Pxg (without max. limit) applied for at least 5 min. Point 5.2.4 and Annex A: Test method Dinamic test Point 5.3.1: 0.5 g Annex B: Test method	NA	NA	NA	NA			NA	NA	NA	NA	NA
110	Strength of side walls	X	NA	Point 4.5: reference to UIC Leaflet 596-5	NA	NA	NA	Code XL Static test Point 5.2.1: 0.4 Pxg (without max. limit) applied for at least 5 min. Point 5.2.6 and Annex A: Test method Dinamic test Point 5.3.1: 0.5 g Annex B: Test method	NA	NA	NA	NA			NA	NA	NA	NA	NA
111	Strength of the semi-trailer body structure		NA	Point 4.5: reference to UIC Leaflet 596-5	NA	NA	NA	dynamic driving tests (Point 5.3 and Annex B), static tests/airbag test (Point 5.2 and Annex A), static inclination test according to EN 12195-1:2010 with the type of cargo as described in the dynamic test (see B.3) and the duration time in Point 5.2.2. The specified test requirements apply to the following types of body structures: - box type; - drop side body with side and tail boards without tarpaulin cover - drop side body with side and tail boards with tarpaulin cover - curtainsider.	NA	NA	Annex D, Point D.1 The efficiency of a securing arrangement can be tested by a dynamic driving test carried out according to the instructions EN 12642, Points B.4 and B.5.	NA	Point 1.2.8.2 Vehicle body structures shall be tested in accordance with EN 12642, Code XL. Point 1.2.8.2.1: Semi-trailers with special equipment for transporting cargo subject to compacting. The superstructure must be checked, according to Annex A of EN 12642 and certified for the respective load and must not exceed the semi-trailer's overall maximum width. The cargo described in the certificate can be in contact with the tarpaulins.		NA	NA	NA	NA	NA
112	Strength of the roof	X	NA	Point 4.5: reference to UIC Leaflet 596-5	NA	NA	NA	NA	NA	NA	NA	NA	A load of 300 kg from above and below and distributed on a flat continuous surface measuring 700 mm x 300 mm. The test from below must take place on one of the end walls sides, on either the left- or right-hand side, at 200 mm. The test from above is to take place on the weakest part of the roof.		NA	NA	NA	NA	NA

	Parameters		Directive 96/53/EC	EN 16973	EN 12640	EN 12641-1	EN 12641-2	EN 12642	EN 13044-1	EN 13044-3	EN 12195-1	EN 12195-2, EN 12195-3 and EN 12195-4	IRS 50596-8		IRS 50596-6	IRS 50596-7	GCU	Loading Guidelines	
			Directive (EU) 2015/719										F	N				Volume 1	Volume 2
113	Test on tarpaulins	X	NA	Bibliography: reference to EN 12641-1 and **EN 12641-2**	NA	**Point 4.2:** Materials The quality of the materials used for tarpaulins shall be such that the resulting product will conform to the requirements defined in Table 1 and ensure uniformity of the performance. Test requirements and methods in **Table 1**.	**Point 4.5.4.1:** General requirements **Point 4.5.4.2:** Static tests **Point 4.5.4.3:** Dynamic tests	NA	NA	NA	NA	NA	Semitrailer with side tarpaulins and tension belts (1,2,6,3). - Tarpaulins tests in accordance with EN 12641-1 - Tension belts in accordance with EN 12641-2 **Semitrailers with side walls and tarpaulins (1,2,6,3.1)** - Tarpaulins tests in accordance with EN 12641-1 - Tension belts and locks in accordance with EN 12641-2 **Deviations** In case of deviation from EN 12641, or in the case of a tarpaulin without a tension belt which does not comply with EN 12641-1, additional dynamic tests as per EN 12641-2 are given in **point (1,2,6,3,3)**.		NA	NA	NA	NA	NA
114	Floor strength	X	NA	**Point 4.8:** reference to **UIC Leaflet 596-5**	NA	NA	NA	NA	NA	NA	NA	NA	According **EN 12642**, tests as per EN 283, point 5.8 are recommended.		NA	NA	NA	NA	NA
117	Test of ladders		NA	No requirement	NA	NA	NA	NA	NA	NA	NA	NA	No requirement		NA	NA	NA	NA	NA
118	Test of walkways		NA	No requirement	NA	NA	NA	NA	NA	NA	NA	NA	No requirement		NA	NA	NA	NA	NA
119	Pressure test		NA	No requirement	NA	NA	NA	NA	NA	NA	NA	NA	No requirement		NA	NA	NA	NA	NA
122	Test of supporting shoes (N technology)	X	NA	No requirement	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.2.1 - Supporting shoes** The supporting shoes shall be able to withstand the weight of the semi-trailer positioned on the wagon and loaded at **1,25 R** and accelerations of **0,8 g** applied longitudinally and **0,3 g** applied horizontally and transversely when the semi-trailer is loaded at 1R. If the shoes are retractable, they should be locked in the active position by means of an appropriate device.	NA	NA	NA	NA	NA
123	Waterproofness	X	NA	No requirement	NA	NA	NA	NA	NA	NA	NA	NA	No requirement	No requirement	NA	NA	NA	NA	NA
124	Test of lashing points for cargo security	X	NA	No requirement	**Point 5** (Verification) **Point 6** (Testing)	NA	NA	NA	NA	NA	NA	NA	No requirement	No requirement	NA	NA	NA	NA	NA
200	Design loadings	X	NA	The basic parameters for the design of semi-trailers are: P= Maximum permissible payload, R= Permissible total mass of the semi-trailer, T= Tare mass. The values of the test loadings and of the forces to apply to semi-trailers during lastings are provided by the requirements provided for the above-mentioned parameters by IRS 50596-5 and EN 16973.	Design Loadings in accorance with **Points 4.2 and 4.3**	Design Loadings in accorance with **Point 4.2**	Design Loadings in accorance with **Point 4.2**	P = specified test value P (in kg), for which the body structure is tested;	NA	NA	**EN 12195-1, Point 4:** Acceleration coefficients **EN 12195-1, Point 5:** Methods of calculation		The basic parameters for the design of semi-trailers are: P= Maximum permissible payload, R= Permissible total mass of the semi-trailer, T= Tare mass. The values of the test loadings and of the forces to apply to semi-trailers during lastings are provided by the requirements provided for the above-mentioned parameters by IRS 50596-5 and EN 16973.		NA	NA	NA	NA	NA

	Parameters		Directive 96/53/EC / Directive (EU) 2015/719	EN 16973	EN 12640	EN 12641-1	EN 12641-2	EN 12642	EN 13044-1	EN 13044-3	EN 12195-1	EN 12195-2, EN 12195-3 and EN 12195-4	IRS 50596-8 (P)	IRS 50596-8 (N)	IRS 50596-6	IRS 50596-7	GCU	Loading Guidelines Vol.1	Loading Guidelines Vol.2
300.1	Identification		NA	In accordance with EN 13044-3 and UIC Leaflet 596-6	Semi-trailers with lashing points in compliance with this standard shall be fitted with one or more marking labels	The mass per m2 of tarpaulin material (according to EN ISO 2286-2) shall be documented on the marking	The mass per m2 of tarpaulin material (according to EN ISO 2286-2) shall be documented on the marking	Identification number of the structure on the Test Certificate (Annex C)	The ILU identification system is associated with a system for verifying the accuracy of its presentation of the identification system for visual interpretation (Point 4.1). The identification system consists of: - the Owner code (Point 4.2), - the Serial number (Point 4.3) and - the Check digit (Point 4.4).	Coding plate a) Shape and contents: Point 4.1 and b) Location: Point: Point 5.	Point 8.2: Where practicable and feasible, a load securing protocol similar to Annex C should be used to verify that the load has been secured in accordance with EN 12195-1. On this protocol, it should be indicated how the load securing method has been set up to carry the loads.	NA	Position of Identification plates and markings: Appendix B / Profile number: IRS 50596-6 and EN 16973, Point 5 / Coding plates: ...	Point 2.4.2: Coding plate / Semi-trailers built after 01.07.2011 / Appendix H.1 lists the codes of the bodies recognized by UIC to grant codification / ...	NA	NA	NA	NA	Coding plates
300.2	Markings		NA		A semi-trailer with lashing points in compliance with this standard shall be fitted with one or more marking labels in accordance with Figure 4 in a clearly visible place. Point 7 defines the content, layout, dimensions and position(s) of the label.	Marking for tarpaulins compliant with EN 1264-1: Point 5	Marking for tarpaulins compliant with EN 1264-1: Point 5	A vehicle compliant with this standard shall be marked by a label which is permanently affixed to the body and clearly visible. Point 6 gives the layout, dimensions and position(s) and an example of the label (Figure 5).	Point 5 defines the physical presentation of the marks on the ILU. a)Shape and contents - Max. Gross and Tare (only for semi-trailers which can be transported on inland waterways and sea): Point 8.2 - Warning electricity: Point 8.3 and Annex A. b)Display, design, location: Point 9	Operational marks a)Shape and contents - Max. Gross and Tare (only for semi-trailers which can be transported on inland waterways and sea): Point 8.2 - Warning electricity: Point 8.3 and Annex A. b)Display, design, location: Point 9	NA	EN 12195-2, Point 8: - Each complete lashing shall me marked with manufacturer's or supplier's name - End fittings shall me marked with manufacturer's or supplier's name EN 12195-3, Point 8 EN 12195-4, Point 8	Grab handling grooves: Appendix I, Point 1.1 / Air suspension pictogram: Appendix H / ...	Grab handling grooves: Appendix I, Point 1.1 / Air suspension pictogram: Appendix H / ...	NA	NA	NA	NA	1) Additional plate for semi-trailers coded compliant with EN 14642 ...
400	Maintenance	X	NA	No requirement	Point 8:The manufacturer shall give user instructions for maintenance of the lashing points.	No requirement	No requirement	Point 7:The manufacturer shall give user instructions for maintenance concerning the load securing elements.	NA	NA	No requirement	Instructions for maintenance: EN 12195-2, Annex B EN 12195-3, Annex B EN 12195-4, Annex B	No requirement		NA	NA	NA	NA	NA
500	Operational control	X	NA	NA	NA	NA	NA	NA	NA	NA	According to Point 8.1, instructions for the use of web lashing devices, lashing chains, lashing steel wire ropes. Examples for the calculation of lashing forces are given in Annex A. ...	Instructions for use: EN 12195-2, Point 9 and Annex B EN 12195-3, Point 7 and Annex B EN 12195-4, Point 7 and Annex B	NA	NA	NA	NA	Article 29: Loading guidelines The RUs shall ensure that shippers comply with the UIC loading guidelines in force. Appendix 9, Annex 1: Catalogue of irregularities ... Point 7: Loads and ILUs 7.5 Specific components ILU (those used for horizontal or vertical transhipment) 7.6 ILU task 7.7 Loading of ILUs ... 7.8 Marking, coding for intermodal transport ...	Semi-trailers whose compatibility with the pocket wagon is identified by P or P + Envelope compatibility code (Loading method 9.4) and Semi-trailers whose compatibility with the pocket wagon is identified by N (Loading method 9.4.1). Loading guidelines ... Securing guidelines ...
600	Certification		NA	NA	NA	NA	NA	NA	Certification by a Conformity assessment Body	Owner code - Definition: Points 4.2.2 + 4.2.4 - Registration: by URR (Point 4.2.1)	Point 7: Allocation bodies for coding and their responsibilities ...	Certificates emitted by the manufacturer	No requirement		After 01.07.2011: Appendix H.1, Table 1 - List of bodies recognised by UIC to grant codification Before 01.07.2011 Appendix H.2 ...	Bodies designated in accordance with national laws and resolutions for: Approval and coding of Semi-trailers (Point 4) ...	NA	NA	NA
600.1	Codification																		
600.2	ILUs approval	X																	
600.3	Coding plate delivery																		

Parameters	Directive 90/02/EC Directive (EU) 2016/719	CEC	EN203	EN204	EN302	EN1422	EN12400	EN12410	EN/TS 15883	EN/TS 14895	ISO/630	ISO 600	EN12865	EN12641-1	EN12641-2	EN12642

EN 13544-1	EN 13544-2	EN 12199-1	EN 12199-2, EN 12199-3 and EN 12199-4	1.2 Class C/Lids	1.3 Class C/stackable ILids	1.4 Class C/refrigerated ILids	1.5 Class A/Lids	1.6 Class A/stackable ILids	1.7 Class A/refrigerated ILids	1.8 Tank ILids	1.9 Intermediate frames	1.10 ILids not compliant with types 1.2-1.10 and having dimensions that allow them to be coded according to ISO 668/668.8

EN 13044-1	EN 13044-2	EN 12195-1	EN 12195-2, EN 12195-3 and EN 12195-4	Swap bodies								ILU bodies	
				1.2 Class C ILUs	1.3 Class C stackable ILUs	1.4 Class C refrigerated ILUs	1.5 Class A ILUs	1.6 Class A stackable ILUs	1.7 Class A refrigerated ILUs	1.8 Tank ILUs	1.9 Intermediate frames	1.10 ILUs not compliant with types 1.2 – 1.9 and having dimensions that allow them to be coded according to ISO 68346-6

| 1.11 GJ with a base width > 2600 mm | 1.12 GJs that due to their dimensions and Max Gross Mass cannot be freely loaded on wagons marked with compatibility code C | 1.13 Hybrid GJs | 1.14 Non-standard GJs which can be conveyed stacked | IRS 50566-5 | IRS 50566-7 | GCU | Limiting conditions | |
							Volume 1	Volume 2