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The European Union Agency for Railways makes available the Reference Document Database-RDD in order to facilitate the access to the rules applied in conjunction with the authorisation of railway vehicles in the Member States of the European Union plus Norway.
For more information about the usage of this tool, the User Manual can be found at: RDD User Manual
The Reference Document Application Guide v.3.0 refers to the elements included in the Commission Decision 2011/155/EU, and any other information relevant for the management, understanding and use of the reference document. Version 3.0 is available in all European languages.

Latest Publications	
Publication of National Rules for Slovakia in the structure of Decision 2015/2299/EU after cleaning up.	10/04/2020
New version of National Reference Document of Slovak Republic.	14/05/2013

Basic Parameter	NTR Title	NTR Title EN
1-General documentation		
1.1-General documentation	Zákon č. 513/2009 Z.z. - § 77 (5), § 78 (4)	Act No. 513/2009 Coll. - Art. 77 (5), Art. 78 (4)
	Vyhláška č. 351/2010 Z.z. - § 91 (5)	Decree No. 351/2010 Coll. - Art. 91 (5)
1.2-Maintenance instructions and requirements		
1.2.1-Maintenance instructions	Vyhláška č. 351/2010 Z.z. - § 93 (4)	Decree No. 351/2010 Coll. - Art. 93 (4)
1.2.2-The maintenance design justification file	Vyhláška č. 351/2010 Z.z. - príloha 3, časť I.	Decree No. 351/2010 Coll. - Annex 3, Part I.
1.3-Instructions and documentation for operation		
1.3.1-Instructions for operation in normal and degraded modes of the vehicle	Vyhláška č. 351/2010 Z.z. - príloha 2, časť I.	Decree No. 351/2010 Coll. - Annex 2, Part I.
1.4-Track side tests of the complete vehicle	Zákon č. 513/2009 Z.z. - § 77 (8), § 78 (9)	Act No. 513/2009 Coll. - Art. 77 (8), Art. 78 (9)
	Vyhláška č. 351/2010 Z.z. - § 92	Decree No. 351/2010 Coll. - Art. 92
	Predpis ŽSR Z1 - čl. 1397	IM's Decree ŽSR Z1 - Art. 1397
2-Structure and mechanical parts		
2.1-Vehicle structure		
2.1.1-Strength and integrity	STN EN 12663	STN EN 12663
2.1.2-Load capability	STN EN 12663	STN EN 12663
2.1.2.1-Load conditions and weighted mass	Vyhláška č. 351/2010 Z.z. - príloha 2, časť IV.	Decree No. 351/2010 Coll. - Annex 2, Part IV.
	STN EN 15663	STN EN 15663
	UIC 700	UIC 700
2.1.2.2-Axle load and wheel load	Vyhláška č. 351/2010 Z.z. - príloha 2, časť IV.	Decree No. 351/2010 Coll. - Annex 2, Part IV.
	STN EN 13103	STN EN 13103
	STN EN 13104	STN EN 13104
2.1.3-Joining technology	STN EN 15085	STN EN 15085
	RID čl. 6.8.2.1.23	RID Art. 6.8.2.1.23

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	Zákon č. 513/2009 Z.z. - § 17	Act No. 513/2009 Coll. - Art. 17
2.1.4-Lifting and jacking	STN EN 12663	STN EN 12663
	UIC 581	UIC 581
2.1.5-Fixing of devices to car body structure	STN EN 12663	STN EN 12663
2.1.6-Connections used between different parts of the vehicle	STN EN 12663	STN EN 12663
2.2-Mechanical interfaces for end coupling or inner coupling		
2.2.1-Automatic coupling	UIC 530-1	UIC 530-1
	UIC 522	UIC 522
	UIC 522-2	UIC 522-2
2.2.2-Characteristics of rescue coupling	UIC 520	UIC 520
	STN EN 15020	STN EN 15020
2.2.3-Screw couplings	STN EN 15566	STN EN 15566
2.2.4-Buffing, inner coupling and draw gear components	STN EN 15551	STN EN 15551
	STN EN 15556	STN EN 15556
	UIC 520	UIC 520
	UIC 526-1	UIC 526-1
	UIC 526-3	UIC 526-3
	UIC 527-1	UIC 527-1
	UIC 528	UIC 528
2.2.5-Buffer marking	STN EN 15551	STN EN 15551
2.2.6-Draw hook	STN EN 15566	STN EN 15566
	UIC 520	UIC 520
	UIC 825	UIC 825
2.2.7-Gangways	UIC 535-2	UIC 535-2
2.3-Passive safety	STN EN 15227	STN EN 15227
3-Track interaction and gauging		
3.1-Vehicle gauge		
3.1.1-Vehicle gauge	STN EN 15273	STN EN 15273
	STN 28 0312	STN 28 0312
	UIC 505-1	UIC 505-1
	UIC 506	UIC 506
3.1.2-Specific case	Bude preskúmané	To be investigated
3.2-Vehicle dynamics		
3.2.1-Running safety and dynamics	STN EN 14363	STN EN 14363
	UIC 510-1	UIC 510-1
	UIC 515-1	UIC 515-1
	UIC 518	UIC 518
	UIC 530-2	UIC 530-2
3.2.2-Equivalent conicity, wheel profile and limits	STN EN 13715	STN EN 13715
	STN EN 15302	STN EN 15302
	UIC 510-2	UIC 510-2
	UIC 518	UIC 518
3.2.3-Track loading compatibility parameters	Vyhláška č. 350/2010 Z.z. - § 6	Decree No. 350/2010 Coll. - Art. 6

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	UIC 700	UIC 700
	STN EN 15528	STN EN 15528
3.2.4-Vertical acceleration	Bude preskúmané	To be investigated
3.3-Bogies / running gear		
3.3.1-Bogies	STN EN 13749	STN EN 13749
	UIC 515-1	UIC 515-1
	UIC 615-1	UIC 615-1
3.3.2-Wheelset (Axle + wheels)	STN EN 15313	STN EN 15313
	STN EN 13260	STN EN 13260
	STN EN 13103	STN EN 13103
	STN EN 13104	STN EN 13104
	STN EN 13261	STN EN 13261
3.3.3-Wheel	STN EN 13262	STN EN 13262
	STN EN 13715	STN EN 13715
	STN EN 13979-1	STN EN 13979-1
	UIC 510-2	UIC 510-2
	UIC 510-5	UIC 510-5
3.3.4-Wheel/rail interface (including wheel flange lubrication and sanding)	STN EN 15427	STN EN 15427
3.3.5-Bearings on the wheelset	STN EN 12080	STN EN 12080
	STN EN 12081	STN EN 12081
	STN EN 12082	STN EN 12082
	STN EN 14865-1	STN EN 14865-1
3.3.6-Minimum curve radius to be negotiated	Bude preskúmané	To be investigated
3.3.7-Rail guard	Bude preskúmané	To be investigated
3.4-Limit of maximum longitudinal positive and negative acceleration	Kladné a záporné zrýchlenie 2,5 m/s2	Positive and negative acceleration 2,5 m/s2
4-Braking		
4.1-Functional requirements for braking at train level	Vyhláška č. 351/2010 Z.z. - § 41, § 42, § 43	Decree No. 351/2010 Coll. - Art. 41, Art. 42, Art. 43
4.2-Safety requirements for braking at train level	Vyhláška č. 351/2010 Z.z. - § 41, § 42, § 43	Decree No. 351/2010 Coll. - Art. 41, Art. 42, Art. 43
4.2.1-Traction/braking interlocking	Bude preskúmané	To be investigated
4.3-Brake system - Recognised architecture and associated standards	Vyhláška č. 351/2010 Z.z. - § 41, § 42, § 43	Decree No. 351/2010 Coll. - Art. 41, Art. 42, Art. 43
4.4-Brake command		
4.4.1-Emergency braking command	Bude preskúmané	To be investigated
4.4.2-Service braking command	Bude preskúmané	To be investigated
4.4.3-Direct braking command	Bude preskúmané	To be investigated
4.4.4-Dynamic braking command	Bude preskúmané	To be investigated
4.4.5-Parking braking command	Bude preskúmané	To be investigated
4.5-Brake performance	STN EN 14531-1	STN EN 14531-1
	UIC 544-1	UIC 544-1
4.5.1-Emergency braking	Bude preskúmané	To be investigated
4.5.2-Service braking	Bude preskúmané	To be investigated
4.5.3-Calculations related to thermal capacity	Bude preskúmané	To be investigated
4.5.4-Parking brake	Bude preskúmané	To be investigated
4.6-Braking adhesion management		

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4.6.1-Limit of wheel rail adhesion profile	Bude preskúmané	To be investigated
4.6.2-Wheel slide protection system	STN EN 15595	STN EN 15595
	UIC 541-05	UIC 541-05
4.7-Braking force production		
4.7.1-Braking force production	UIC 544-1	UIC 544-1
4.7.2-Friction brake		
4.7.2.1-Brake blocks	Bude preskúmané	To be investigated
4.7.2.2-Brake discs	UIC 541-3	UIC 541-3
4.7.2.3-Brake pads	Bude preskúmané	To be investigated
4.7.3-Dynamic brake linked to traction	UIC 544-2	UIC 544-2
4.7.4-Magnetic track brake	UIC 541-06	UIC 541-06
4.7.5-Eddy current track brake	Bude preskúmané	To be investigated
4.7.6-Parking brake	Bude preskúmané	To be investigated
4.8-Brake state and fault indication	Bude preskúmané	To be investigated
4.9-Brake requirements for rescue purposes	Bude preskúmané	To be investigated
5-Passenger-related items		
5.1-Access		
5.1.1-Exterior doors	UIC 560	UIC 560
	STN EN 14752	STN EN 14752
5.1.2-Interior doors	UIC 560	UIC 560
5.1.3-Clearways	UIC 560	UIC 560
	UIC 565-3	UIC 565-3
5.1.4-Steps and lighting	UIC 555	UIC 555
	UIC 560	UIC 560
	STN EN 13272	STN EN 13272
5.1.5-Floor height changes	TSI PRM - čl. 4.2.2.9.	TSI PRM - Art. 4.2.2.9.
5.1.6-Handrails	UIC 560	UIC 560
5.1.7-Boarding aids	UIC 565-3	UIC 565-3
5.2-Windows	UIC 560	UIC 560
	UIC 564-1	UIC 564-1
5.3-Toilets	Vyhláška č. 351/2010 Z.z. - príloha 2, časť III.B. čl. 12, čl. 13	Decree No. 351/2010 Coll. - Annex 2, Part III.B. Art. 12, Art. 13
	UIC 563	UIC 563
5.4-Passenger information		
5.4.1-Public address system	UIC 568	UIC 568
5.4.2-Signs and information	UIC 580	UIC 580
5.5-Seats and specific PRM arrangements	UIC 565-3	UIC 565-3
5.6-Specific passenger-related facilities		
5.6.1-Lift systems	Bude preskúmané	To be investigated
5.6.2-Heating, ventilation and air conditioning systems	UIC 553	UIC 553
5.6.3-Other	Bude preskúmané	To be investigated
6-Environmental conditions and aerodynamic effects		
6.1-Impact of the environment on the vehicle		

6.1.1-Environmental conditions impacting on the vehicle	Bude preskúmané	To be investigated
6.1.1.1-Altitude	STN EN 50125-1	STN EN 50125-1
6.1.1.2-Temperature	STN EN 50125-1	STN EN 50125-1
6.1.1.3-Humidity	STN EN 50125-1	STN EN 50125-1
6.1.1.4-Rain	STN EN 50125-1	STN EN 50125-1
6.1.1.5-Snow, ice and hail	STN EN 50125-1	STN EN 50125-1
6.1.1.6-Solar radiation	STN EN 50125-1	STN EN 50125-1
6.1.1.7-Chemical and particulate matter	STN EN 50125-1	STN EN 50125-1
6.1.2-Aerodynamic effects on the vehicle		
6.1.2.1-Crosswind effects	STN EN 14067-6	STN EN 14067-6
6.1.2.2-Maximum pressure variation in tunnels	STN EN 14067-5	STN EN 14067-5
6.2-Impact of the vehicle on the environment		
6.2.1-Impact of the vehicle on the environment (general)	UIC 345	UIC 345
6.2.2-Chemical and particulate emissions	UIC 624	UIC 624
	2004/26/ES	2004/26/EC
6.2.2.1-Toilet emissions	Bude preskúmané	To be investigated
6.2.2.2-Exhaust gas emissions	UIC 624	UIC 624
	2004/26/ES	2004/26/EC
6.2.3-Limits for noise emissions	TSI NOI	TSI NOI
	Nariadenie Vlády SR č. 115/2006 Z.z.	Government regulation No. 115/2006 Coll.
6.2.3.1-Exterior noise impact	TSI NOI	TSI NOI
6.2.3.2-Stationary noise impact	TSI NOI	TSI NOI
6.2.3.3-Starting noise impact	TSI NOI	TSI NOI
6.2.3.4-Pass-by noise impact	TSI NOI	TSI NOI
6.2.4-Limits for aerodynamic loads impact		
6.2.4.1-Head pressure pulses	STN EN 14067-4	STN EN 14067-4
6.2.4.2-Aerodynamic impact on passengers/materials on the platform	STN EN 14067-4	STN EN 14067-4
6.2.4.3-Aerodynamic impact on track workers	STN EN 14067-4	STN EN 14067-4
6.2.4.4-Ballast pick up and projection onto neighbouring property	Bude preskúmané	To be investigated
7-External warning, marking functions and software integrity requirements		
7.1-Integrity of software employed for safety related functions	STN EN 50128	STN EN 50128
7.2-Visual and audible vehicle identification and warning functions	STN EN 15153-1	STN EN 15153-1
	STN EN 15153-2	STN EN 15153-2
7.2.1-Vehicle marking	UIC 438	UIC 438
	RID	RID
	TSI OPE, dodatok P	TSI OPE, Annex P
7.2.2-External lights		
7.2.2.1-Headlights	STN EN 15153-1	STN EN 15153-1
	UIC 534	UIC 534
7.2.2.2-Marker lights	STN EN 15153-1	STN EN 15153-1

	UIC 534	UIC 534
7.2.2.3-Tail lights	STN EN 15153-1	STN EN 15153-1
	UIC 532	UIC 532
	UIC 534	UIC 534
7.2.2.4-Lamp controls	UIC 532	UIC 532
	UIC 534	UIC 534
7.2.3-Warning horn		
7.2.3.1-Warning horn tones	STN EN 15153-2	STN EN 15153-2
7.2.3.2-Warning horn sound pressure levels	Bude preskúmané	To be investigated
7.2.3.3-Warning horns, protection	Bude preskúmané	To be investigated
7.2.3.4-Warning horns, control	Bude preskúmané	To be investigated
7.2.3.5-Warning horns verification of sound pressure levels	Bude preskúmané	To be investigated
7.2.4-Brackets	UIC 532	UIC 532
	UIC 534	UIC 534
8-On-board power supply and control systems		
8.1-Traction performance requirements	STN EN 50215	STN EN 50215
	STN EN 50388	STN EN 50388
8.1.1-Residual acceleration at max speed	Bude preskúmané	To be investigated
8.1.2-Residual traction capability in degraded mode	Bude preskúmané	To be investigated
8.1.3-Traction wheel/rail adhesion requirements	Bude preskúmané	To be investigated
8.2-Functional and technical specification related to the interface between the vehicle and the energy subsystem	STN EN 50215	STN EN 50215
	TNŽ č. 34 1540	Railway technical standard No. 34 1540
8.2.1-Functional and technical specification related to the electric power supply	STN EN 50163	STN EN 50163
	STN EN 50215	STN EN 50215
	STN EN 50388	STN EN 50388
	STN EN 60077	STN EN 60077
	UIC 550	UIC 550
	UIC 552	UIC 552
8.2.1.1-Power supply	STN EN 50163	STN EN 50163
8.2.1.2-Impedance between pantograph and wheels	Bude preskúmané	To be investigated
8.2.1.3-Voltage and frequency of overhead contact line power supply	STN EN 50163	STN EN 50163
	TNŽ č. 34 1540	Railway technical standard No. 34 1540
8.2.1.4-Energy recuperation	Bude preskúmané	To be investigated
8.2.1.5-Maximum power and maximum current that is permissible to draw from the overhead contact line	STN EN 50388	STN EN 50388
8.2.1.6-Power factor	Bude preskúmané	To be investigated
8.2.1.7-System energy disturbances		
8.2.1.7.1-Harmonic characteristics and related overvoltages on the overhead contact line	Bude preskúmané	To be investigated

8.2.1.7.2-Effects of DC content in AC supply	Bude preskúmané	To be investigated
8.2.1.8-Electrical protection	STN EN 50153	STN EN 50153
8.2.2-Pantograph functional and design parameters		
8.2.2.1-Pantograph overall design	STN EN 50206-1	STN EN 50206-1
	STN EN 50367	STN EN 50367
	UIC 608	UIC 608
8.2.2.2-Pantograph head geometry	STN EN 50367	STN EN 50367
	Dĺžka hlavy pantografového zberača 1 950 mm, výška 340 mm	Length of pantograph head 1.950 mm, height 340 mm
8.2.2.3-Pantograph static contact force	STN EN 50206-1	STN EN 50206-1
	UIC 608	UIC 608
8.2.2.4-Pantograph contact force (including dynamic behaviour and aerodynamic effects)	STN EN 50206-1	STN EN 50206-1
	STN EN 50317	STN EN 50317
	STN EN 50318	STN EN 50318
	UIC 608	UIC 608
8.2.2.5-Working range of pantographs	STN EN 50206-1	STN EN 50206-1
8.2.2.6-Current capacity	STN EN 50206-1	STN EN 50206-1
8.2.2.7-Arrangement of pantographs	Bude preskúmané	To be investigated
8.2.2.8-Insulation of pantograph from the vehicle	Bude preskúmané	To be investigated
8.2.2.9-Pantograph lowering	STN EN 50119	STN EN 50119
	STN EN 50206-1	STN EN 50206-1
8.2.2.10-Running through phase separation sections	STN EN 50206-1	STN EN 50206-1
8.2.2.11-Running through system separation sections	STN EN 50119	STN EN 50119
8.2.3-Contact strip functional and design parameters		
8.2.3.1-Contact strip geometry	STN EN 50367	STN EN 50367
8.2.3.2-Contact strip material	STN EN 50367	STN EN 50367
	STN EN 50405	STN EN 50405
8.2.3.3-Contact strip assessment	STN EN 50405	STN EN 50405
8.2.3.4-Detection of contact strip breakage	Bude preskúmané	To be investigated
8.2.3.5-Current capacity	STN EN 50206-1	STN EN 50206-1
	STN EN 50367	STN EN 50367
	STN EN 50405	STN EN 50405
8.3-Electrical power supply and traction system		
8.3.1-Energy consumption measurement	Povinná inštalácia palubného systému merania spotreby elektrickej energie	Obligatory installation of on-board system for energy consumption measurement
	STN EN 50463	STN EN 50463
8.3.2-Main electrical circuit configuration	STN EN 60077	STN EN 60077
8.3.3-High voltage components	STN EN 60077	STN EN 60077
8.3.4-Earthing	STN EN 50153	STN EN 50153
	UIC 533	UIC 533
8.4-Electromagnetic compatibility	Vyhláška č. 351/2010 Z.z. – príloha 2, časť III.B čl. 18	Decree No. 351/2010 Coll. – Annex 2, Part III.B Art. 18

	Nariadenie Vlády SR č. 194/2005 Z.z.	Government regulation No. 194/2005 Coll.
	STN EN 50121-1	STN EN 50121-1
	STN 34 2600	STN 34 2600
8.4.1-Electromagnetic compatibility within the on-board electrical power supply and control system	STN EN 50121-3-1	STN EN 50121-3-1
	STN EN 50121-3-2	STN EN 50121-3-2
8.4.2-Electromagnetic compatibility with the signalling and telecommunications network	STN EN 50121-4	STN EN 50121-4
	Vyhláška č. 351/2010 Z.z. – príloha 2, časť III.B čl. 18	Decree No. 351/2010 Coll. – Annex 2, Part III.B Art. 18
8.4.3-Electromagnetic compatibility with other vehicles and with the trackside part of the railway system	STN EN 50121-2	STN EN 50121-2
	STN EN 50238	STN EN 50238
	STN 34 2613	STN 34 2613
	Vyhláška č. 351/2010 Z.z. – príloha 2, časť III.B čl. 18	Decree No. 351/2010 Coll. – Annex 2, Part III.B Art. 18
8.4.4-Electromagnetic compatibility with the environment	Bude preskúmané	To be investigated
8.5-Protection against electrical hazards	STN EN 50153	STN EN 50153
	UIC 533	UIC 533
8.6-Diesel and other thermal traction system requirements	UIC 623	UIC 623
	2004/26/ES	2004/26/EC
8.7-Systems requiring special monitoring and protection measures	Bude preskúmané	To be investigated
8.7.1-Tanks and pipe systems for flammable liquids	RID	RID
8.7.2-Pressure vessel systems/pressure equipment	STN EN 286-3	STN EN 286-3
	STN EN 286-4	STN EN 286-4
	Zákon č. 513/2009 Z.z. - § 16	Act No. 513/2009 Coll. - Art. 16
	Vyhláška č. 205/2010 Z.z. - § 9, § 15	Decree No. 205/2010 Coll. - Art. 9, Art. 15
8.7.3-Steam boiler installations	Vyhláška č. 205/2010 Z.z. - § 9, § 15	Decree No. 205/2010 Coll. - Art. 9, Art. 15
8.7.4-Technical systems in potentially explosive atmospheres	Bude preskúmané	To be investigated
8.7.5-Ionisation detectors	Bude preskúmané	To be investigated
8.7.6-Hydraulic/pneumatic supply and control systems	Bude preskúmané	To be investigated
9-Staff facilities, interfaces and environment		
9.1-Driver's cab design		
9.1.1-Cab design	UIC 651	UIC 651
9.1.1.1-Interior layout	UIC 651	UIC 651
9.1.1.2-Desk ergonomics	UIC 651	UIC 651
9.1.1.3-Driver's seat	UIC 651	UIC 651
9.1.1.4-Means for the driver to exchange documents	UIC 651	UIC 651
9.1.1.5-Other facilities to control operation of the train	Vyhláška č. 351/2010 Z.z. - § 10, § 97	Decree No. 351/2010 Coll. - Art. 10, Art. 97
9.1.2-Access to driver’s cab		
9.1.2.1-Access, egress and doors	UIC 651	UIC 651
	STN EN 14752	STN EN 14752

9.1.2.2-Driver's cab emergency exits	UIC 651	UIC 651
9.1.3-Windscreen in driver's cab	STN EN 15152	STN EN 15152
9.1.3.1-Mechanical characteristics	UIC 651	UIC 651
	STN EN 15152	STN EN 15152
9.1.3.2-Optical characteristics	UIC 651	UIC 651
	STN EN 15152	STN EN 15152
9.1.3.3-Equipment	Bude preskúmané	To be investigated
9.1.3.4-Front visibility	UIC 651	UIC 651
9.2-Working conditions	UIC 651	UIC 651
9.2.1-Environmental conditions	UIC 651	UIC 651
9.2.1.1-Heating, ventilation and air conditioning systems in driver's cab	UIC 651	UIC 651
9.2.1.2-Noise in driver's cab	TSI NOI	TSI NOI
	Nariadenie Vlády SR č. 115/2006 Z.z.	Government regulation No. 115/2006 Coll.
9.2.1.3-Lighting in driver's cab	UIC 651	UIC 651
	STN EN 13272	STN EN 13272
9.2.2-Others	Bude preskúmané	To be investigated
9.3-Driver/machine interface		
9.3.1-Driver/machine interface	UIC 612	UIC 612
	STN EN 50126	STN EN 50126
	STN EN 50128	STN EN 50128
	STN EN 50129	STN EN 50129
9.3.1.1-Speed indication	Vyhláška č. 351/2010 Z.z. – príloha 2, časť III.B čl. 5	Decree No. 351/2010 Coll. – Annex 2, Part III.B Art. 5
	UIC 612	UIC 612
	STN EN 50126	STN EN 50126
	STN EN 50128	STN EN 50128
	STN EN 50129	STN EN 50129
9.3.1.2-Driver display unit and screens	UIC 612	UIC 612
	STN EN 50126	STN EN 50126
	STN EN 50128	STN EN 50128
	STN EN 50129	STN EN 50129
9.3.1.3-Controls and indicators	UIC 612	UIC 612
	UIC 651	UIC 651
	STN EN 50126	STN EN 50126
	STN EN 50128	STN EN 50128
	STN EN 50129	STN EN 50129
9.3.2-Driver supervision	Vyhláška č. 351/2010 Z.z. – § 10	Decree No. 351/2010 Coll. - Art. 10
9.3.3-Rear and side view	Bude preskúmané	To be investigated
9.4-Marking and labelling in driver's cab	UIC 640	UIC 640
9.5-Equipment and other facilities on-board for staff		
9.5.1-Facilities on-board for staff		
9.5.1.1-Staff access for coupling/uncoupling	TSI LOC&PAS - čl. 4.2.2.2.5.	TSI LOC&PAS - Art. 4.2.2.2.5.
9.5.1.2-External steps and handrails for shunting staff	UIC 535-2	UIC 535-2
	UIC 646	UIC 646
9.5.1.3-Storage facilities for use by	UIC 651	UIC 651

staff		
9.5.1.4-Other facilities	Bude preskúmané	To be investigated
9.5.2-Staff and freight access doors	STN EN 14752	STN EN 14752
	UIC 651	UIC 651
	UIC 560	UIC 560
9.5.3-On-board tools and portable equipment	Bude preskúmané	To be investigated
9.5.4-Audible communication system	UIC 568	UIC 568
	UIC 558	UIC 558
9.6-Recording device	Vyhláška č. 351/2010 Z.z. – príloha 2, časť III.B čl. 5	Decree No. 351/2010 Coll. – Annex 2, Part III.B Art. 5
9.7-Remote control function	STN EN 50239	STN EN 50239
	UIC 558	UIC 558
10-Fire safety and evacuation		
10.1-Fire safety		
10.1.1-Fire protection concept		
10.1.1.1-Fire protection concept	STN EN 45545	STN EN 45545
10.1.1.2-Classification of vehicle/fire categories	TSI LOC&PAS – čl. 4.2.10.	TSI LOC&PAS – Art. 4.2.10.
10.1.2-Fire protection measures	STN EN 45545	STN EN 45545
10.1.2.1-General protection measures for vehicles	STN EN 1363-1	STN EN 1363-1
10.1.2.2-Fire protection measures for specific kind of vehicles	Bude preskúmané	To be investigated
10.1.2.3-Protection of driver's cab	STN EN 1363-1	STN EN 1363-1
10.1.2.4-Fire barriers	STN EN 1363-1	STN EN 1363-1
10.1.2.5-Material properties	STN EN 45545	STN EN 45545
10.1.2.6-Fire detectors	STN EN 54-7	STN EN 54-7
10.1.2.7-Fire extinction equipment	TNŽ č. 28 0399	Railway technical standard No. 28 0399
10.2-Emergency		
10.2.1-Passenger emergency exits	TSI LOC&PAS – čl. 4.2.10.4.	TSI LOC&PAS – Art. 4.2.10.4.
10.2.2-Rescue services' information, equipment and access	Vyhláška č. 351/2010 Z.z. - § 104	Decree No. 351/2010 Coll. - Art. 104
10.2.3-Passenger alarm	Bude preskúmané	To be investigated
10.2.4-Emergency lighting	STN EN 13272	STN EN 13272
10.3-Additional measures	Bude preskúmané	To be investigated
11-Servicing		
11.1-Train cleaning facilities		
11.1.1-Train external cleaning facilities	TSI LOC&PAS – čl. 4.2.11.2.	TSI LOC&PAS – Art. 4.2.11.2.
11.1.2-Train internal cleaning	Bude preskúmané	To be investigated
11.2-Train refuelling facilities	UIC 627-2	UIC 627-2
11.2.1-Waste water disposal systems	Bude preskúmané	To be investigated
11.2.2-Water supply system	Bude preskúmané	To be investigated
11.2.3-Further supply facilities	Bude preskúmané	To be investigated
11.2.4-Interface to refuelling equipment for non electric rolling stock	Bude preskúmané	To be investigated
12-On-board control command and signalling		
12.1-On-board radio system	Vyhláška č. 351/2010 Z.z. - § 96	Decree No. 351/2010 Coll. - Art. 96
12.1.1-Non-GSM-R radio system	TNŽ č. 34 2858	Railway technical standard No. 34 2858

12.1.2-Use of hand portables as cab mobile radio	Bude preskúmané	To be investigated
12.1.3-GSM-R compliant radio system		
12.1.3.1-Text messages	Bude preskúmané	To be investigated
12.1.3.2-Call forwarding	Bude preskúmané	To be investigated
12.1.3.3-Broadcast calls	Bude preskúmané	To be investigated
12.1.3.4-Cab-radio related functions	Bude preskúmané	To be investigated
12.1.3.5-Network selection by external trigger	Bude preskúmané	To be investigated
12.1.3.6-General purpose radio-related functions	Bude preskúmané	To be investigated
12.1.3.7-Primary controller's MMI functionality	Bude preskúmané	To be investigated
12.1.3.8-Capacity of on-board GSM-R	Bude preskúmané	To be investigated
12.1.3.9-GSM-R-ETCS interface	Bude preskúmané	To be investigated
12.1.3.10-Interconnection and roaming between GSM-R networks	Bude preskúmané	To be investigated
12.1.3.11-Border crossing	Bude preskúmané	To be investigated
12.1.3.12-GPRS and ASCI	Bude preskúmané	To be investigated
12.1.3.13-Interface between rolling stock driver's safety device, vigilance device, and GSM-R on-board assembly	Bude preskúmané	To be investigated
12.1.3.14-Test specification for mobile equipment GSM-R	Bude preskúmané	To be investigated
12.1.3.15-Directed/automatic network selection	Bude preskúmané	To be investigated
12.1.3.16-Registration and deregistration	Bude preskúmané	To be investigated
12.1.3.17-GSM-R Version Management	Bude preskúmané	To be investigated
12.2-On-board signalling		
12.2.1-National on-board signalling systems	Vyhláška č. 351/2010 Z.z. – § 10	Decree No. 351/2010 Coll. - Art. 10
	Vyhláška č. 351/2010 Z.z. – príloha 2, časť III.B čl. 5	Decree No. 351/2010 Coll. – Annex 2, Part III.B Art. 5
	STN EN 50128	STN EN 50128
	STN EN 50129	STN EN 50129
	TNŽ č. 34 2640	Railway technical standard No. 34 2640
12.2.2-Compatibility of signalling system with the rest of the train	STN EN 50121-3-1	STN EN 50121-3-1
12.2.3-Compatibility of rolling stock with track infrastructure	STN EN 50121-4	STN EN 50121-4
	UIC 512	UIC 512
	TNŽ č. 28 1020	Railway technical standard No. 28 1020
12.2.3.1-Relation between axle distance and wheel diameter	TSI CCS – príloha 1	TSI CCS – Annex 1
12.2.3.2-Metal free space around wheels	TSI CCS – príloha 1	TSI CCS – Annex 1
12.2.3.3-Metal mass of a vehicle	TSI CCS – príloha 1	TSI CCS – Annex 1
12.2.4-ETCS cab signalling system		
12.2.4.1-Awakening	Bude preskúmané	To be investigated
12.2.4.2-Train categories	Bude preskúmané	To be investigated
12.2.4.3-Performance requirements for on-board GSM-R equipment related to quality of service	Bude preskúmané	To be investigated
12.2.4.4-Use of ETCS modes	Bude preskúmané	To be investigated
12.2.4.5-ETCS requirements when	Bude preskúmané	To be investigated

vehicle is driven from outside the cab		
12.2.4.6-Level crossing functionality	Bude preskúmané	To be investigated
12.2.4.7-Braking safety margins	Bude preskúmané	To be investigated
12.2.4.8-Reliability — Availability — Safety Requirements	Bude preskúmané	To be investigated
12.2.4.9-Marker boards	Bude preskúmané	To be investigated
12.2.4.10-Ergonomic aspects of the DMI	Bude preskúmané	To be investigated
12.2.4.11-ETCS values of variables controlled outside UNISIG — Manual	Bude preskúmané	To be investigated
12.2.4.12-KM Conformance Requirements	Bude preskúmané	To be investigated
12.2.4.13-Requirements for pre-fitting ETCS on-board equipment	Bude preskúmané	To be investigated
12.2.4.14-ETCS version management	Bude preskúmané	To be investigated
12.2.4.15-Specification of ETCS variables	Bude preskúmané	To be investigated
12.2.4.16-RBC – RBC interface	Bude preskúmané	To be investigated
12.2.4.17-Additional requirements on locomotives and multiple units	Bude preskúmané	To be investigated
12.2.4.18-Functionality and interfaces of staff protection systems to the signalling system	Bude preskúmané	To be investigated
12.2.4.19-Interface with service brake.	Bude preskúmané	To be investigated
13-Specific operational requirements		
13.1-Specific items to place on-board	Bude preskúmané	To be investigated
13.2-Occupational health and safety	Zákon č. 124/2006 Z.z.	Act No. 124/2006 Coll.
	Predpis ŽSR Bz 1	IM's Decree ŽSR Bz 1
13.3-Lifting diagram and instructions for rescue	UIC 581	UIC 581
14-Freight-related items		
14.1-Design, operation and maintenance constraints for the transport of dangerous goods	RID	RID
14.2-Specific facilities for the transport of freight	Bude preskúmané	To be investigated
14.3-Doors and loading facilities	Bude preskúmané	To be investigated