

**The Appendix is an integral part of
Certificate of Accreditation No. 300/2018 of 11/06/2018**

Accredited entity according to ČSN EN ISO/IEC 17025:2005:

VÚKV a.s.

Testing Laboratory for Railway Vehicles and Containers
Bucharova 1314/8, Stodůlky, 158 00 Praha 5

Testing laboratory locations:

- 1. Workplace Praha** Bucharova 1314/8, Stodůlky, 158 00 Praha 5
- 2. Workplace Cerhenice** 281 02 Cerhenice

The Laboratory is qualified to update standards identifying the test procedures.

The Laboratory has a flexible scope of accreditation permitted as detailed in the Annex.

Updated list of activities provided within the flexible scope of accreditation is available at the Laboratory from the Laboratory Technical Manager.

2. Workplace Cerhenice

Tests:

Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
1.	Static strength tests of bodies	12-F 12 (WAG TSI, p. 4.2.2.2 LOC&PAS TSI, p. 4.2.2.4 ČSN EN 12663-1+A1 ČSN EN 12663-2 ČSN EN 15227+A1 ČSN 28 1300, p. 5.2.4 ČSN 28 1310, p. 9.2.3 UIC 566, p. 4.1 UIC 577, 1 ERRI B12/RP17 VDV 152, p. 7.2.3)	Railway vehicle body
2 *	Static strength tests of subassemblies	12-F 14 (WAG TSI, p. 4.2.2.2 LOC&PAS TSI, p. 4.2.2.4 ČSN EN 12663-1+A1, p. 8.2 ČSN EN 12663-2, p. 7 UIC 566, p. 4.2 UIC 577, 3 ERRI B12/RP17)	Railway vehicle subassemblies (walls, floor, roof, valve, stan, beam, container fixtures, doors, steps, linking bridge, seats, shelves, hanger, walls)
3 *	Test of tow hook	12-F 23 (WAG TSI, Appendix C UIC 535-2)	Railway vehicles
4	Crash tests	12-F 09 (WAG TSI, Appendix C LOC&PAS TSI, p. 4.2.2.4 ČSN EN 12663-1+A1, p. 8.4 ČSN EN 12663-2, p. 8 ČSN EN 15227+A1 ČSN EN 15551, p. 5.5.3, 7 UIC 566, p. 4.1.3 UIC 577, p. 2.2 ERRI B12/RP17, section 3.1)	Railway vehicles

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Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
5	Dynamic tests of buffers	12-F 27 (ČSN EN 15551 Annex E)	Railway vehicle buffers
6 *	Test of deformation resistance of the front part	12-F 01 (LOC&PAS TSI, p. 4.2.2.5 ČSN EN 15227+A1 ČSN EN 15551 VDV 152, p. 5.4)	Railway vehicles
7 *	Running strength tests	12-F 10 (WAG TSI, p. 4.2.2.2 LOC&PAS TSI, p. 4.2.2.4 ČSN EN 12663-1+A1, p. 8.3 ČSN EN 12663-2, p. 9.2 ČSN EN 13749, p. 6.2.5 ČSN 28 1300, p. 5.2.5 ČSN 28 1310, p. 9.2.4 ERRI B12/RP17 DVS 1608 DVS 1612 FKM Guideline VDV 152, p. 7.5)	Railway vehicles
8 *	Strength tests of bogie frames and their components	12-F 11 (WAG TSI, p. 4.2.3.6 LOC&PAS TSI, p. 4.2.3.5 ČSN EN 13749, p. 6.2.3, p. 6.2.4 UIC 510-3 UIC 515-4 UIC 615-4 VDV 152, p. 7.2.4 and 7.3.2)	Railway vehicles
9 *	Curve passability test, ferry boat and traverser entry test	12-F 15 (ČSN EN 14363, p. 6.1.5.3.3 ČSN 28 1300, p. 5.2.8 ČSN 28 1310, p. 9.2.7 UIC 507 UIC 510-1 ERRI B12/DT135)	Railway vehicles
10 *	Measurement of torsional rigidity	12-F 21 (WAG TSI, Appendix B 2.1 and 2.3 ČSN EN 15839+A1, cl. 5 ČSN EN 14363, cl. 6.3 ERRI B12/RP 17 ERRI B12/DT135, Annex E)	Railway vehicles
11 *	Measurement of rotational resistance by simulation on a measuring turntable	12-F 16 (WAG TSI, p. 6.2.3.2 LOC&PAS TSI, p. 6.2.3.3 ČSN EN 14363, p. 6.1.5.3.3)	Railway vehicles

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Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
12 *	Determination of running safety against derailing on a distorted track	12-F 20 (WAG TSI, p. 4.2.3.5.1 LOC&PAS TSI, p. 4.2.3.4.1 ČSN 28 1300, p. 5.2.6 ČSN 28 1310, p. 9.2.8, p. 9.2.9 ČSN EN 14363, p. 6.1, EN 14363:2005, p. 4.1 ERRI B55/RP8)	Railway vehicles
13 *	Determination of running safety, effect of vehicle on a track and running properties	12-F 18 (WAG TSI, p. 4.2.3.5.2; p. 6.2.2.3 LOC&PAS TSI, p. 4.2.3.4.2 ČSN EN 14363, p. 7 UIC 518)	Railway vehicles
14 *	Determination of maximum longitudinal force transferred by propelled vehicles	12-F 19 (WAG TSI, Appendix C p. 8 ČSN EN 14363, p. 6.2 ČSN EN 15839+A1 UIC 530-2)	Railway vehicles
15 *	Operational tests and measurement of vibrations	12-F 08 (ČSN ISO 2631-1 ČSN EN ISO 5349-1 ČSN EN ISO 5349-2 ČSN 28 1300, p. 5.2.7, p. 5.2.10 ČSN 28 1310, p. 9.2.10, p. 9.2.15 ČSN EN 12299 UIC 513)	Railway vehicles
16 *	Determination of key parameters for the determination of gauge	12-F 13 (WAG TSI, p. 4.2.3.1 LOC&PAS TSI, p. 4.2.3.1 ČSN 28 0312 ČSN 28 0338 ČSN 28 0318 ČSN EN 15273-2+A1 ČSN EN 14363, p. 6.4 UIC 505-1 UIC 505-5)	Railway vehicles
17 *	Measurement of running resistances	12-F 07 (ČSN EN 50215 ed.2 TNŽ 28 1010)	Railway vehicles

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Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
18 *	Test of brakes	12-F 24 (WAG TSI, p. 4.2.4 LOC&PAS TSI, p. 4.2.4 ČSN EN 15806 UIC 540 UIC 541-04 UIC 541-05 UIC 541-4 UIC 543 UIC 544-1 UIC 546 UIC 547 EBA test modules within the meaning of EBO § 32)	Railway vehicles
19 *	Measurement of noise	12-F 06 (NOI TSI ČSN EN 15892 ČSN EN 15153-2 ČSN EN ISO 3381 ČSN EN ISO 3095)	Railway vehicles (interior and exterior)
20 *	Aerodynamic tests	10-F 07 (LOC&PAS TSI, p. 4.2.6.2.1, p. 4.2.6.2.2, p. 4.2.6.3 ČSN EN 14067-4, p. 6.2.2.1, p. 6.1.2.1 ČSN EN 14067-5+A1, p. 4.2.2, p. 4.2.3)	Railway vehicles
21 *	Test of earthing	12-F 17 (WAG TSI, p. 4.2.6.2 ČSN EN 50153 ed.3 UIC 533)	Railway vehicles
22 *	Tests of air conditioning	12-F 03 (ČSN EN 13129 ČSN EN 14750-2 ČSN EN 14813-2+A1 UIC 553-1)	Railway vehicles
23 *	Tests of air handling	12-F 04 (ČSN EN 13129 ČSN EN 14750-2 ČSN EN 14813-2+A1 UIC 553-1)	Railway vehicles
24 *	Test of thermal insulation properties - determination of thermal transmission coefficient	12-F 05 (ČSN EN 13129, p. 14.1 ČSN EN 14750-2, p. 9.1 ČSN EN 14813-2+A1, p. 9.1 UIC 553-1, p. 7.2)	Railway vehicles

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Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
25 *	Test of interior lighting	12-F 26 (LOC&PAS TSI, p. 4.2.9.1.8; p. 4.2.10.4.1 ČSN EN 13272, p. 1 to 6, except p. 6.5)	Railway vehicles
26 *	Determination of water penetration resistance	12-F 22 (ČSN 28 1300, p. 5.2.3 ČSN 28 1310, p. 9.2.12 ERRI B12/RP17, p. 4.1.6)	Railway vehicles
27	Testing of universal series 1 containers (ISO) determination of dimensions, external longitudinal (dynamic) strength and water tightness	18-F 01 (ČSN EN 283 ČSN EN 1432 ČSN 26 9340 ČSN ISO 1496-1 ČSN ISO 1496-2 ČSN ISO 1496-3 ČSN ISO 1496-4 ČSN ISO 1496-5 Rules for containers Rules for engineering supervision of containers (ČLPR))	Containers
28	Testing of series 1 tank containers (ISO) determination of dimensions, external longitudinal (dynamic) strength and water tightness	18-F 02, (ČSN 26 9340 ČSN ISO 1496-3 Rules for containers Rules for engineering supervision of containers (ČLPR))	Containers
29 *	Measurement of dynamic properties of tracks	14-F 02 (NOI TSI, p. 6.2.2.3.1 ČSN EN 15461+A1 ČSN EN ISO 3095)	Track
30 *	Rail roughness measurement related to rolling noise generation	14-F 03 (NOI TSI, p. 6.2.2.3.1 ČSN EN 15610 ČSN EN ISO 3095)	Part of a track (rail)

1) Asterisk at the ordinal number identifies the tests performed outside/also outside the laboratory premises.

Explanations:

ČLPR

Český lodní a průmyslový registr s.r.o. (Czech Ship and Industrial Register)
currently Československý Lloyd, spol. s r.o.)

ERRI

European Rail Research Institute

UIC

International Union of Railways

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TNŽ Railways)	Technical standards of Railways issued by České dráhy, a.s. (Czech
EBO	Railway Construction and Operating Regulations issued by the Federal Railway Authority in Bonn
UIC xxx	Regulations issued by the International Union of Railways
ERRI Bxxx/RPxx	Reports issued by the European Rail Research Institute
Railway vehicles	Propelling and propelled railway vehicles operating on national, regional and local tracks, special railway vehicles (metro) and tram vehicles
NOI TSI	technical specification of interoperability relating to the subsystem "rolling stock - noise" (Commission Regulation (EU) No. 1302/2014)
WAG TSI	technical specification of interoperability relating to the subsystem "rolling stock – freight wagons" of the rail system in the European Union (Commission Decision (EU) No. 321/2013 as amended by the Commission Decision (EU) No. 1236/2013)
LOC&PAS TSI	technical specification for interoperability relating to the "rolling stock – locomotives and passenger rolling stock" subsystem of the rail system in the European Union (Commission Regulation (EU) No. 1302/2014)
rr-F xxx	Internal document (test method) of the VÚKV a.s. Testing Laboratory

Annex:

Flexible scope of accreditation

Ordinal numbers of tests
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30

The Laboratory is allowed to modify the test methods listed in the Annex within the specified scope of accreditation provided the measuring principle is observed.

The flexible approach to the scope of accreditation cannot be applied to the tests not included in the Annex.