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TB

**RAILWAY INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

TB/T 2783-2017

**Exhaust emission tests for diesel engines of motive power
units**

(English Translation)

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Table of Contents

Foreword...	3
1 Scope..	4
2 Normative References...	4
3 Terms and Definitions...	6
4 Working conditions..	7
5 Main characteristics...	7
6 Technical requirements...	8
7 Test...	15
8 Inspection rules..	18
9 Marking, packaging, transportation and storage...	19
Annex A (Informative) Basic structure of rubber vestibule diaphragm...	21
Annex B (Informative) Basic structure of pucker vestibule diaphragm...	22
Annex C (Informative) Ring sealed rubber vestibule diaphragm...	24
Annex D (Normative) Rain-proof performance test method..	25
Annex E (Normative) Thermal insulation test method..	27
Annex F (Normative) Sound-isolation test method...	30

Foreword

This Standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard replaces TB/T 2948-1999, Technical specification for rubber air shield of railway passenger car, and TB/T 3094-2004, Gangway bellows for railway passenger car.

Compared with TB/T 2948-1999 and TB/T 3094-2004, the major changes of this Standard are as follows.

- it adds the passage requirements for wheel chairs and small catering trucks (see 5.7);
- it adds the technical requirements for the assembly of rubber vestibule diaphragm (see 6.1.3);
- it adds the content of pressure-tight vestibule diaphragm for electric multiple units

(see 6.2);

-- it adds the pressure-tight requirements under pressure load (see 6.2.1.16);

-- it adds the content of exterior vestibule diaphragm (see 6.3);

-- it adds the content of iron vestibule diaphragm (see 6.4);

-- it adds the basic structures and compositions of all types of vestibule diaphragm

(see Annex A, Annex B and Annex C).

This Standard shall be under the jurisdiction of Qingdao Sifang Rolling Stock Research Institute Co., Ltd.

The drafting organizations of this Standard. Qingdao Sifang Rolling Stock Research Institute Co., Ltd., Zhuzhou Times New Material Technology Co., Ltd., CSR Qingdao Sifang Rolling Stock Co., Ltd., Changchun Railway Vehicles Co., Ltd., CRRC Tangshan Co., Ltd.

1 Scope

This Standard specifies the terms and definitions, working conditions, main characteristics, technical requirements, test, inspection results, marking, packaging, transportation and storage of vestibule diaphragm of locomotive and rolling stock.

This Standard applies to vestibule diaphragm of locomotive and rolling stock of standard gauge railway (hereinafter referred to as vestibule diaphragm); and this Standard may be referred to for other locomotives and rolling stocks.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition dated applies to this document. For undated references, the latest edition of the referenced documents (including all amendments) applies to This Standard.

GB/T 528-2009, Rubber, vulcanized or thermoplastic - Determination of tensile stress-strain properties (ISO 37.2005, IDT)

GB/T 529-2008, Rubber, vulcanized or thermoplastic - Determination of tear strength (Trouser, angle and crescent test pieces) (ISO 34-1.2004, MOD)

GB/T 531.1-2008, Rubber, vulcanized or thermoplastic - Determination of indentation hardness - Part 1. Durometer method (Shore hardness) (ISO 7619-1:2004, IDT)

GB/T 1220-2007, Stainless steel bars

GB/T 1682-1994, Rubber, vulcanized - Determination of low-temperature brittleness (single test piece method)

GB/T 1689-1998, Rubber vulcanized - Determination of abrasion resistance (Akron machine)

GB/T 1766-2008, Paints and varnishes - Rating schemes of degradation of coats

GB/T 1865-2009, Paints and varnishes - Artificial weathering and exposure to artificial radiation - Exposure to filtered xenon-arc radiation

GB/T 3241-2010, Electroacoustics - Octave-band and fractional-octave-band filters (IEC 60260:1995, MOD)

GB/T 3277, Corrugated steel plates with lath and lentilform

GB/T 3512-2001, Rubber, vulcanized or thermoplastic - Accelerated ageing and heat resistance tests - Air-oven method (eqv ISO 188:1998)

GB/T 3785.1-2010, Electroacoustics - Sound level meters - Part 1. Specifications (IEC 61672-1:2002, IDT)

GB/T 6892, Wrought aluminium and aluminium alloys - Extruded profiles for commercial usage

GB/T 7762-2003, Rubber, vulcanized or thermoplastic - Resistance to ozone cracking - Static strain test (ISO 1431-1:1989, MOD)

GB/T 9286-1998, Paints and varnishes - Cross cut test for films (eqv ISO 2409:1992)

GB/T 9754-2007, Paints and varnishes - Determination of specular gloss of non-metallic paint films at 20°, 60° and 85°

GB/T 11186.3-1989, Methods for measuring the colour of paint films - Part 3. Calculation of colour differences

GB/T 13934-2006, Rubber, vulcanized - Determination of flex cracking (ISO

132.1999, MOD)

GB/T 15173-2010, Electroacoustics - Sound calibrators (IEC 60942.2003, IDT)

GB/T 15256-1994, Rubber, vulcanized - Determination of low-temperature brittleness (multiple test piece method)

GB/T 25343 (all parts), Railway applications - Welding of railway vehicles and components

GB/T 50121-2005, Rating standard of sound insulation in buildings

TB/T 1674-1993, Heat insulation test method for passenger train

TB/T 1802-1996, Rain leakage test method for rolling stock

TB/T 1941-1999, Technical specifications for supply of chemical fibre plastic-coated tarpaulin for freight car

TB/T 2218-2010, Tests on railway passenger cars negotiating minimum radius curves

TB/T 3139-2006, Decorating materials and indoor air limit of harmful substance for railway locomotive and vehicle

NOTE: Modification of GB/T 4549.4-2004, Definition 4.1.4.

3.6

ring sealed rubber vestibule diaphragm

Vestibule diaphragm which is made by forming rubber material into U-shaped cross section through vulcanization or other technique and assisting with aluminium alloy or other profiles.

3.7

exterior vestibule diaphragm

A part which is installed at the end of car body and made of metal framework and rubber profiles or composite materials, to reduce drag, mainly including compression-type exterior vestibule diaphragm and non-contact-type exterior vestibule diaphragm.