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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 18564.2-2008

**Road tanker for dangerous liquid goods transportation - Part 2:
Technical requirements of atmospheric pressure non-metal
tank**

道路运输液体危险货物罐式车辆 第2部分：非金属常压罐体技术要求

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Foreword

All technical content in this section is mandatory. GB 18564 "liquid road transport of dangerous goods tank vehicle" is divided into two parts.

--- Part 1. atmospheric pressure metal tank technical requirements;

--- Part 2. Non-metallic pressure tank technical requirements. This section GB 18564 "liquid road transport of dangerous goods tank vehicle" Part 2. This Part replaces GB 18564-2001

"Motor Transport of Dangerous Goods pressure liquid containers (tanks) general technical conditions" non-metallic tank Body part. This section is compared with GB 18564-2001, the main changes are as follows:

- Standard name from "dangerous goods transportation liquid pressure vessel (tank) General technical conditions" to road transport liquid dangerous " Cargo tank vehicles - Part 2. Non-metallic pressure tank technical requirements ";
- Working pressure capped by "0.072MPa" was changed to "less than 0.1MPa";
- Adds a chapter of terms and definitions;
- Increased material chapter provides the tank with a glass fiber reinforced plastics and technical requirements for plastic materials;
- Design adds a chapter, the provisions of the tank load, to determine design parameters and structure design requirements;
- Manufacturing chapter, an increase of body shaping and bias requirements;
- Modify the original factory inspection requirements;
- Increased tank periodic inspection chapter provides the basic test items and content;
- Added Appendix A "non-metallic tank suitable common medium of liquid dangerous goods", Appendix C "glass fiber reinforced plastic tank sticky Joint Technology Assessment "Appendix D" plastic welding tank welding procedure qualification "and Appendix E" ray, ultrasound and penetration testing and acceptance regulations Fan ";
- Original Appendix A "liquid dangerous goods and tank material compatibility" to Appendix B "common medium liquid dangerous goods and tank timber Material compatibility ";
- Cancellation of the original Appendix B "dangerous goods pressure tank inspection results Registration Form" (prompted appendix). This section of the Appendix A, Appendix B, Appendix C, Appendix D, Appendix E is an information appendix. This part of the National boiler pressure vessel Standardization Technical Committee (SAC/TC262) and focal points. This part of the National Standardization Technical Committee on Boilers and Pressure Vessels Pressure Vessels Technical Committee (SAC/TC262/SC4) group Woven drafted. This section is drafted. Hangzhou Nanfang Chemical Equipment Plant, Tongji University School of Aeronautics and Astronautics and Mechanics, Shanghai Gas Industry Association, Wuxi City preservative plant River, Shanghai Chemical Equipment Co., Haohua Zhongyi FRP Co., Ltd. Shanghai and Shanghai Bus Factory, Shanghai Special Equipment Inspection Technology Research Institute, Shanghai Chemical goods Motor Transport Company, Yangzhou CIMC Tonghua Special Vehicle Co., Ltd., Guangdong East Wan Yongqiang Automobile Manufacturing Co., Ltd. The main drafters of this section. Zhou Shigang, Ni Yongquan, Xuzai Ping, Chen Xiaoyu, Wei-Ming Zhou, life than the south, the

king of the country, Fuxin Lan, Wu Gang, Weiyong Biao, Xiaqiu Chun, Zhang Xicheng, Sun Star, Ding Jianxun, Wang Hu group, Liu Hongqing, Shen Bixia. This part of the standard replaces the previous editions are.

1 Scope

GB 18564.2-2008 is the Chinese national standard on road tanker for dangerous liquid goods transportation - part 2: technical requirements of atmospheric pressure non-metal tank, in the field of road vehicles engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 11 December 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 July 2009. Classification: ICS 43.160, CCS T59. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

1.1 section provides road transport of liquid dangerous goods tank vehicle nonmetallic pressure tank (hereinafter referred to as tanks) the design, manufacture, test Test methods, factory inspection, painting and marking and identification techniques require periodic inspection program.

1.2 section applies to the shipment of dangerous goods is a liquid medium, the work pressure is less than 0.1MPa, the tank material is polyethylene plastic, polyvinyl chloride Ene plastic, polypropylene plastic, glass fiber reinforced plastics, etc., and with stereotypes automobile chassis or trailer frame for the permanent connection of non-metallic Tank.

1.3 part of the tank with a non-metallic materials of the allowable temperature range should meet the following requirements.

- a) polyvinyl chloride, polypropylene plastic. -10 °C ~ 50 °C;
- b) polyethylene plastic, glass fiber reinforced plastic. -20 °C ~ 50 °C. In any case, the surface temperature of the body member material should not exceed the allowable temperature range.

1.4 A section applies to media in the appendix. Appendix A to the outside beyond the range of liquid dangerous goods, which can refer to this tank design Partially implemented, subject to the national authorities recognized unit for technical review.

1.5 does not apply to tanks, tank vacuum insulation structure metallic material, there are special requirements of military equipment used in tanks, volume greater than 20m³ tank, as well as the transport of flammable, explosive or toxic level is extremely high hazard class

or medium tank.

1.6 pairs can not be used in this part of the design of the tank, allowing the use of the following methods to design, subject to the national authorities authorized unit Comment Fixed, recognized.

- a) including finite element method of stress analysis;
- b) Confirmatory test analysis (such as experimental stress analysis, hydraulic confirmatory test);
- c) comparing the experience with the design of the structure has been put into use comparable.

2 Normative references

The following documents contain provisions which, through reference in this Part of GB 18564, constitute provisions of this part. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section. However, under this part are encouraged to reach Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 1033-1986 plastic density and relative density test method GB /1040.2-2006 Plastics Determination of tensile properties T - Part 2. Test plastics molding and extrusion conditions (ISO 527-2. 1993, IDT)

GB/T 1043-1993 hard plastic Charpy impact test method (neq

ISO 179. 1982) Test Method for Tensile Properties of Plastics (ISO 527-4

GB/T 1447-2005 fiber reinforced.1997, Testconditionforisotrop-icandorthotropicfiber-reinforcedplasticscomposites, NEQ)

GB 1589 road vehicles outside dimensions, axle load limits and quality

GB/T 1633-2000 thermoplastics Vicat softening temperature (VST) is measured (idt

ISO 306.1994) Determination of

GB/T 1634.1-2004 Plastics deflection temperature under load - Part 1. General test method (ISO 75-1.2003, IDT)

GB/T 2035-1996 Plastics terms and definitions Performance test method

GB/T 2568-1995 resin casting body stretch

GB/T 3682-2000 quality thermoplastic melt flow rate and melt volume flow rate measurement (idt ISO 1133. 1997)