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**QC**

AUTOMOBILE INDUSTRY STANDARD  
OF THE PEOPLE'S REPUBLIC OF CHINA

ICS 43.040.50

T 22

**QC/T 242-2014**

Replacing QC/T 242-2004

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**Static Unbalance Requirements and Test Methods of  
Vehicle Wheels**

汽车车轮静不平衡量要求和检测方法

**Issued on: October 14, 2014**

**Implemented on: April 01, 2015**

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**Issued by: Ministry of Industry and Information Technology of the PRC**

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## Foreword

This Standard was drafted as per the rules specified in GB/T 1.1-2009 *Directives for Standardization – Part 1: Structure and Drafting of Standards*.

This Standard replaced QC/T 242-2004 *Unbalance Requirements and Test Methods of Vehicle Wheels* since the date of implementation.

Compared with QC/T 242-2004, the major technical differences of this Standard are as follows:

- Modify the name of the standard; and changed it into *Static Unbalance Requirements and Test Methods of Vehicle Wheels*;
- Modify the scope of the standard: applicable to automobile wheels (see Clause 1 of 2004 Edition; Clause 1 of this Edition);
- Modify the normative references: delete GB/T 2933-1995, GB/T 3487-1996; and add GB/T 4201-2006 *Description Verification and Evaluation of Balancing Machines* (ISO 2953: 1999, IDT), GB/T 6444-2008 *Mechanical Vibration - Balancing Vocabulary* (ISO 1925:2001, IDT), JJF 1151-2006 *Calibration Specification for Wheel Dynamic Balancers* (see Clause 2 of 2004 Edition; Clause 2 of this Edition);
- Add the terms and definitions (see Clause 3 of this Edition);
- Add the requirements for inspection samples of light alloy wheels, two-piece rim wheels and three-piece rim wheels (see Clause 4 of this Edition);
- Change all "requirements for unbalance of wheels" into "requirements for static unbalance" (see Clause 3 of 2004 Edition; and Clause 5 of this Edition):
- Modify Table 1 "Requirements for static unbalance of passenger car wheels". According to the different surface treatment methods, the requirements for static unbalance of painted wheels and electroplated wheels are respectively specified. (See Table 1 in Clause 3 of 2004 Edition; Table 1 in Clause 5 of this Edition);
- Modify Table 2 "Requirements for static unbalance of commercial vehicle wheels". According to different wheel materials, the requirements for static unbalance of light alloy wheels and steel wheels of commercial vehicle are respectively specified (see Table 2 in Clause 3 of 2004 Edition; Tables 2 and 3 in Clause 5 of this Edition);
- Modify the requirements for testing equipment; stipulate the selection, evaluation criteria and calibration requirements for the balancer (see 4.3 of 2004 Edition;

# Static Unbalance Requirements and Test Methods of Vehicle Wheels

## 1 Scope

This Standard specifies the static unbalance requirements and test methods of vehicle wheels.

This Standard is applicable to the vehicle wheels.

## 2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this document.

GB/T 4201-2006 *Description Verification and Evaluation of Balancing Machines* (ISO 2953: 1999, IDT)

GB/T 6444-2008 *Mechanical Vibration - Balancing Vocabulary* (ISO 1925:2001, IDT)

JJF 1151-2006 Calibration Specification for Wheel Dynamic Balancers

## 3 Terms and Definitions

For the purposes of this Standard, the terms and definitions given in GB/T 6444-2008 apply.

## 4 Inspection Sample

**4.1** The inspection sample shall be a new finished wheel that has not been used or tested.

**4.2** When testing light alloy wheels, a valve cock or a substitute of the same quality shall be installed at the corresponding position of the valve port.

**4.3** For two-piece rim wheels and three-piece rim wheels, it is permissible not to be

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