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

GB/T 10762-2021

Replacing GB/T 10762-2005

**Method of mass measurements for industrial and mining
electric locomotive**

工矿电机车质量测量方法

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Foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules of Standardization Documents" drafted: This document replaces GB/T 10762-2005 "Measurement Method for the Quality of Industrial and Mining Electric Locomotives": Compared with GB/T 10762-2005, except for the structure In addition to adjustments and editorial changes, the main technical changes are as follows:

- a) Changed the expression of the scope (see Chapter 1, Chapter 1 of the:2005 edition);
- b) Modified normative references (see Chapter 2, Chapter 2 of the:2005 edition);
- c) Changed the terms "empty mass", "curb mass", "wheel weight" and "unchanged wheel weight" (see 3:1~3:4, 3:8,:2005 edition of 3:1~3:4,3:6);
- d) The terms "wheel weight deviation rate" and "axle load deviation rate" have been added (see 3:5 and 3:6);
- e) Changed the content of measurement items (see Chapter 4, Chapter 4 of the:2005 edition);
- f) Changed the "general requirements" in the measurement requirements (see 5:1:1, 5:1:2, 5:1:1, 5:1:2 of the:2005 edition);
- g) Changed the "requirements for electric locomotives" in the measurement requirements (see 5:2:2, 5:2:3, 5:2:2 and 5:2:3 of the:2005 edition), and added the measurement Requirements for the inspection and adjustment of the bogie and body of the electric locomotive before measuring (see 5:2:4, 5:2:5);
- h) Changed the relevant requirements for measuring instruments (see 6:1, 6:1 of the:2005 edition);
- i) Changed the requirements for the measurement track (see 6:2:1~6:2:3, 5:3:1~5:3:5 of the:2005 edition);
- j) Changed the requirements for the structure of the measuring device (see 6:3, 6:2 of the:2005 edition);

- k) Added metrological traceability requirements for measurement systems (see 6:4);
- l) Changed the measurement method in Chapter 7 (see 7:1:1~7:1:4, 7:1:1~7:1:4 of the:2005 edition);
- m) The measurement methods of wheel weight deviation rate and axle weight deviation rate are added (see 7:1:5);

1 Scope

GB/T 10762-2021 is the Chinese national standard on method of mass measurements for industrial and mining electric locomotive, in the field of road vehicles engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 31 December 2021 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2022. Classification: ICS 43.020, CCS K63. 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.

This document describes the measurement of the mass of industrial and mining electric locomotives on the measurement track, including the measurement of wheel weight, axle load and empty weight, curb weight and Basic requirements and methods for wheel weight deviation rate and axle load deviation rate, and specify the conditions and methods for measuring the quality of industrial and mining electric locomotives by other methods: Require: This document applies to the quality measurement of industrial and mining electric locomotives (hereinafter referred to as "electric locomotives"):

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document:

GB/T 2585 Hot-rolled steel rails for railways

GB/T 8170 Numerical Rounding Rules and Representation and Judgment of Limit Values
JJG (Railway) 117 Static Locomotive and Rolling Stock Weighing Platform Verification Regulations

3 Terms and Definitions

The following terms and definitions apply to this document: 3:

1 Empty car mass m_{empty} The electric locomotive is fully assembled and has the quality it has when it meets the conditions of trial operation:

Note: Including all fixed installation equipment and substances that must be added to ensure the normal operation of the equipment, excluding the quality of drivers and passengers, spare parts, tools and quality Consumables that decrease with operation: 3:2 curb weight m_{curb} in working order The quality of the locomotive empty car, the quality of the drivers and passengers and the quality of various substances (sand, rescue materials, tools, lubricants, etc.) required for normal operation Sum:

Note: The mass of the driver and passengers is set to 75kg (including personnel equipment and all items), and the same mass of counterweight can also be used instead: 3:3 wheelweight The locomotive is parked on a straight track, and each wheel acts on the static load on the rail: [Source: TB/T 1740-2015, 3:1] 3:

4 Axleload The sum of the weights of the left and right wheels on the same axle of an electric locomotive: [Source: TB/T 1740-2015, 3:2, with modifications]