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

GB/T 3871.4-2025

Replacing GB/T 3871.4-2006

**Agricultural tractors - Test procedures - Part 4: Rear three-point
linkage lifting capacity**

农业拖拉机 试验规程 第4部分：后置三点悬挂装置提升能力

(English Translation)

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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 for standardization documents" Drafting.

This document is Part 4 of GB/T 3871 "Test procedures for agricultural tractors". GB/T 3871 has been published in the following parts.

- Part 1: General requirements;
- Part 2: Measurement of whole machine parameters;
- Part 3: Power take-off shaft power test;
- Part 4: Lifting capacity of rear three-point hitch;
- Part 5: Turning circle and passing circle diameter;
- Part 6: Determination of braking performance of agricultural and forestry vehicles;
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- Part 19: Steering performance of wheeled tractors;
- Part 20: Bump test;
- Part 21: Stability.

This document replaces GB/T 3871.4-2006 "Agricultural tractor test procedures Part 4: Rear three-point hitch lifting capacity".

Compared with GB/T 3871.4-2006, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) The scope has been changed (see Chapter 1, Chapter 1 of the 2006 edition);
- b) Added the requirements for test prototypes (see 5.1);
- c) Added the requirements for instruction manual (see 5.3);
- d) Added maintenance requirements (see 5.4);
- e) Added technical specification requirements (see 5.5);
- f) Added the requirements for atmospheric pressure of environmental conditions (see 5.7.1);
- g) The general requirements for the test procedure have been changed (see 6.1, 6.1.1 of the 2006 edition);
- h) The lifting force of the lower suspension point has been changed (see 6.2, 6.1.2 of the 2006 edition);
- i) The lifting force on the frame has been changed (see 6.3, 6.1.3 of the 2006 edition);
- j) Added the method for determining the lifting time (see 6.4);
- k) The requirements for static settlement test have been changed (see 6.4, 6.2 of the 2006 edition);
- l) The test report requirements have been changed (see Chapter 7, 6.1.4 and 6.2.5 of the 2006 edition);
- m) The test report format has been changed (see Appendix A of the 2006 edition).

This document is modified to adopt ISO 789-2:2018 "Agricultural tractor test procedures Part 2: Rear three-point hitch lifting device ability".

This document has the following structural adjustments compared to ISO 789-2:2008.

--- Added normative Appendix A.

The technical differences between this document and ISO 789-2:2018 and their reasons are as follows.

- a) The scope (see Chapter 1) has been changed to meet the needs of domestic industry;
- b) The terms and definitions (see Chapter 3) have been changed to meet the needs of this document;
- c) The pressure unit has been changed (see Chapter 4) to be consistent with GB/T 3871.18;
- d) The normative reference GB/T 1593 replaces ISO 730:2009 (see Chapters 5 and 6) to facilitate the use of the standard;
- e) The requirements for running-in and commissioning (see 5.2) have been modified to adapt to the technical characteristics of products currently on the market and to ensure the repeatability of the test. Renaturation;
- f) The requirements of the technical specifications (see 5.5) have been changed to maintain consistency in the content of the technical specifications;
- g) The normative reference GB/T 3141 replaces ISO 3448:1992 (see 5.6.1) to facilitate the use of the standard;
- h) The maximum performance in the general requirements (see 6.1 of ISO 789-2:2018) has been deleted to avoid ambiguity;
- i) The adjustment requirements (see 6.1.2) have been changed to meet the test needs;
- j) The lifting force of the lower suspension point has been changed (see 6.2) to meet the needs of domestic industry use;
- k) The lifting force on the frame has been changed (see 6.3) to meet the needs of domestic industry;
- l) The lifting time determination and static settlement test methods (see 6.4) have been added to meet the needs of domestic industry use;
- m) The test report requirements (see Chapter 7) have been changed to unify the standards for ease of use;
- n) Added the test report format (see Appendix A) to unify the standards for ease of use.

The following minimal editorial changes have been made to this document.

--- Change the name of the standard to "Agricultural tractor test procedures Part 4: Rear three-point hitch lifting capacity" to make it consistent with the current Some standardized documents are coordinated.

Introduction

The test method is an important means to test the performance of products. Different test methods can produce different test results.

The purpose of the standard is to achieve a standard, a single test, and industry-wide recognition. As the power source of mobile agricultural machinery, tractors have a harsh working environment.

It is poor and involves many requirements in terms of personal safety and environmental hygiene, so a series of test methods are needed to check whether its performance meets the requirements.

In this regard, my country has established a complete set of tractor test methods by studying and referring to international standards and foreign advanced standards.

GB/T 3871 aims to establish test procedures for inspecting tractor performance indicators and is intended to consist of 22 parts.

--- Part 1: General requirements. The purpose is to standardize the acceptance, running-in, test general requirements and test Report writing format.

--- Part 2: Measurement of complete machine parameters. The purpose is to standardize the test procedures for measuring complete machine parameters of agricultural tractors.

--- Part 3: Power take-off shaft power test. The purpose is to standardize the test procedure for the effective power of the power take-off shaft of agricultural tractors.

--- Part 4: Lifting capacity of rear three-point hitch. The purpose is to standardize the lifting capacity of the lower suspension point of the three-point hitch of agricultural tractors. Test procedures for maximum lifting force, maximum lifting force on the frame, lifting time and static settlement.

--- Part 5: Turning circle and passing circle diameter. The purpose is to standardize the measurement of turning circle and passing circle diameter of agricultural wheeled tractors program.

--- Part 6: Determination of braking performance of agricultural and forestry vehicles. The purpose is to standardize agricultural tractors and self-propelled agricultural vehicles and trailers and test procedures for braking performance of trailed agricultural machinery.

--- Part 7: Driver's front field of view. The purpose is to standardize the general requirements, test procedures and verification of the driver's front field of view of agricultural tractors. Collection criteria.

--- Part 8: Noise measurement. The purpose is to standardize the noise at the driver's operating position and dynamic environmental noise of agricultural and forestry tractors.