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

GB/T 19040-2016

Replacing GB/T 19040-2003

**Agricultural tractors -- Requirements for steering
(English Translation)**

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Foreword

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

This standard replaces GB/T 19040-2003 "Agricultural wheeled tractors - Steering requirements." this standard compared with GB/T 19040-2003, in addition to editorial changes outside the main technical differences are as follows.

- Modify the standard name;
- Modify the standard range (see Chapter 1, Chapter 1, 2003 edition);
- Modify the normative references (see Chapter 2, Chapter 2, 2003 edition);
- An increase of some terms and definitions (see Chapter 3);
- Remove the requirement to the steering wheel (see 2003 edition 4.1);
- Increased test General (see Chapter 4);
- Modified steering performance requirements (see 52, 2003 edition Chapter 5);
- Remove the additional requirements for specific types of steering device (Chapter 6, 2003 edition);
- Increase the maximum design speed is greater than 40km/h maximum tractor steering time and the maximum steering force requirements (see 5.3.1);
- Increased simulation failure (see 5.4);
- Increasing the energy supply/energy storage devices and warning (see 5.5);
- Increasing the adjustment device/Maintenance/Maintenance (see 5.6);
- Increasing the strength/durability of the components (see 5.7);
- Increasing the systems containing complex electronic control steering system (see 5.8);
- Added security complex electronic control system for the special requirements of the

tractor (see Appendix A).

This standard uses redrafted Law Amendment uses ISO 10998:2008 "Agricultural tractor steering requirements." this standard and ISO 10998:2008 technical differences and for the following reasons.

--- On normative references, this standard has been adjusted technical differences, in order to adapt our technical documents, adjust the focus reflected in Chapter 2, "Normative references", the specific adjustments are as follows.

- equivalent adoption of international standards GB/T 3871.19-2006 replaces ISO 789-11:1996 (see 5.3.2);
- Modify with international standards of GB/T 20792-2006 replaces ISO 3965:1990 (see Chapter 1);
- equivalent adoption of international standards GB/T 26143-2010 replaces ISO 19879:2010 (see 5.7.2.2);
- To delete references ISO 7000:2004.

--- 5.1.2 adds "traveling along a curve the distance of not less than one quarter of the circumference" in order to more effectively determine the tractor steering performance.

This standard also made the following editorial changes.

--- Amendment into the international standard ISO 10998:2008/Amd.1. Content 2014, the provisions of those amendments has been involved in the outside lane by a vertical margin position () were marked;

--- Will be ISO 7000:2004 was revised to reference a reference to the specific content directly in this standard.

This standard and ISO 10998:2008 technical differences exist compared to the terms of these differences have been involved in its outer margin by a single vertical line (Shu) empty positions were marked.

The standard proposed by China Machinery Industry Federation.

This standard by the National Standardization Technical Committee tractor (SAC/TC140) centralized.

This standard was drafted. Luoyang Xiyuan vehicle inspection and Power Limited, Changzhou Dongfeng Agricultural Machinery Group Co., Ltd.

1 Scope

This standard specifies the agricultural tractor steering performance and safety requirements under normal and emergency situations.

This standard applies to the maximum design speed by GB/T 20792 is determined not more than (60 ± 3) km/h wheeled tractor.

This standard does not apply to the maximum design speed by GB/T 20792 is determined not more than (15 ± 3) km/h steel track tractor.

2 Normative references

The following documents for the application of this document is essential. For cited documents with dates, only the dated edition applies to this document. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 3871.19-2006 Agricultural tractors - Test procedures - Part 19. wheeled tractor steering performance (ISO 789-11:1996, IDT) GB/T 20792-2006 Determination of the maximum speed of wheeled tractors (ISO 3965:1990, MOD) GB/T 26143-2010 hydraulic fittings test methods (ISO 19879:2010, IDT) ISO 14982:1998 Agricultural and forestry machinery - Electromagnetic compatibility - Test methods and acceptance criteria

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 General terms

3.1.1

Agricultural Tractors Having at least two axes wheeled or tracked motor vehicles. Mainly rely on its traction capabilities for pulling, pushing, carrying or driving tools, machinery or trailers engaged in agriculture or forestry operations.

NOTE: This tractor can be used for crew transport goods and/or GB/T 24660.2 requirements.

3.1.2

Steering

All means for determining the direction of movement of the tractor. Including steering means (3.1.3), the steering gear (3.1.4), guide rollers (3.1.6) or track and energizing means (if any) (3.1.7).

3.1.3

Steering means

Steering means for steering the steering member.

Note: with or without direct intervention of the driver, steering system can work. For the whole of human steering and power steering, the steering apparatus comprising a driver from the point of application to all parts pass through a mechanical, hydraulic or electric power to the steering force

at the way.

3.1.4

Steering Gear

Between the steering device and the guide wheels or tracks to pass all parts of the steering force steering device.