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

GB/T 10916.1-2025

Replacing GB/T 10916-2003

**Agricultural tractors - Front-mounted equipment - Part 1: Power
take-off: Safety requirements and clearance zone around PTO**

农业拖拉机 前置装置 第1部分：动力输出轴安全要求和空隙范围

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 1 of GB/T 10916 "Front-drive systems for agricultural tractors". GB/T 10916 has the following parts published.

---Part 1: Safety Requirements and Clearance Range for Power Take-Off Shafts;

---Part 2: Connection of fixed equipment.

This document replaces GB/T 10916-2003 "Front-mounted devices for agricultural wheeled tractors - Part 1: Power take-off shaft and three-point suspension".

Compared with GB/T 10916-2003, the main technical changes in the "Apparatus" are as follows, except for structural adjustments and editorial modifications.

- a) The scope has been changed (see Chapter 1, Chapter 1 of the 2003 edition);
- b) The specifications regarding type, speed, and direction of rotation have been removed (see 4.1 in the 2003 edition);
- c) The location requirement has been removed (see 4.2 in the 2003 edition);
- d) Security requirements have been changed (see Chapter 4, 4.4 of the 2003 edition);
- e) The specification for the clearance range around the power take-off shaft has been changed (see Chapter 5, 4.3 of the 2003 edition);
- f) The operational rules have been removed (see 4.5 in the 2003 edition);
- g) The requirement for three-point suspension devices has been removed (see Chapter 5 of

the 2003 edition).

This document is equivalent to ISO 8759-1:2018 "Agricultural tractors - Front drive units - Part 1: Power take-off shaft - Safety requirements and air supply".

Gap range.

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

---Notes 1 and 2 have been deleted from the range.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Machinery Industry Federation.

This document is under the jurisdiction of the National Tractor Standardization Technical Committee (SAC/TC140).

Introduction

This document adapts the International Organization for Standardization (ISO) standard for front-mounted drives in agricultural tractors, aiming to assist domestic tractor manufacturers.

Understanding international standards will facilitate the export of tractors from my country.

GB/T 10916 is proposed to consist of 4 parts.

---Part 1: Safety Requirements and Clearance Range for Power Take-Off Shafts. The purpose is to specify the safety and clearance requirements for power take-off shafts.

---Part 2: Connections to stationary equipment. The purpose is to specify the connection positions and dimensions of stationary equipment driven by the power take-off shaft.

---Part 3: General Requirements and Locations for Power Take-Off Shafts. The purpose is to specify the type, speed, direction of rotation, and...

Location.

---Part 4: Three-point suspension. The purpose is to specify the dimensions of three-point suspension systems.

The four components complement each other to form a complete standard system for the front-mounted device of agricultural tractors.

The publication and implementation of this document are consistent with international standards, truly achieving the goal of standardization and global recognition, and will better promote trade.

Easy communication and technical cooperation.

Agricultural Tractor Front-Mounted System Part 1.

Safety requirements and clearance range for power take-off shaft

1 Scope

This document specifies the safety requirements for the front power take-off shaft of a tractor and the clearance range around it.

This document applies to the front-mounted units of agricultural tractors and forestry tractors.

This document does not apply to tractors that can travel in both directions, either front or rear.

2 Normative references

This document has no normative references.

3 Terms and Definitions

The following terms and definitions apply to this document.

front

Define the relative positions of the seat, steering wheel, control devices, and road lighting devices with the tractor's direction of travel on the road as the front.

4 Safety Requirements

4.1

The front power take-off shaft guard shall be fixed to the tractor and shall conform to the specifications in Figure 1 and Table 1. It shall have the same protective function and Protective devices with appropriate clearance dimensions (such as towing frames or tricycle suspensions) can replace protective covers. If necessary, a portion of the pull rod can...

Enter the clearance area around the front power take-off shaft, especially when the pull rod is in its highest raised position (if not in operation, the pull rod is in its rest position).

Place it in the correct location.

4.2

If the power take-off shaft guard cannot be used as a pedal, it can be flexible.

4.3

The power take-off shaft guard should be secured to prevent it from moving. A fully enclosed power take-off shaft guard may be used.

4.4

The tractor may be equipped with a non-rotating additional sheath that covers the power take-off shaft when it is not in operation.

5 Clearance range around the power take-off shaft

The clearance range around the power output shaft should meet the requirements of Figure 1 and Table 1.