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

GB/T 1592.1-2016

**Agricultural tractors -- Rear-mounted power take-off types 1, 2,
3 and 4 -- Part 1: General specifications, safety requirements,
dimensions for master shield and clearance zone**

(English Translation)

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Foreword

GB/T 1592 "Agricultural tractors - Rear-mounted power take-off types 1, 2, 3 and 4" consists of the following three parts:

- Part 1: General specifications, safety requirements, dimensions for master shield and clearance zone;
- Part 2: Narrow-track tractors, dimensions for master shield and clearance zone;
- Part 3: Main PTO dimensions and spline dimensions, location of PTO.

This Part is Part 1 of GB/T 1592.

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

This Part replaces GB/T 1592.1-2008 "Agricultural tractors - Rear-mounted power take-off types 1, 2 and 3 - Part 1: General specifications safety requirements dimensions for master shield and clearance zone".

Compared with GB/T 1592.1-2008, in addition to editorial modifications, the main technical differences in this Part are as follows:

- modified the standard name;
- changed "wheel track" to "minimum track" (see Clause 1 of this Edition, Clause 1 of Edition 2008);

- added the requirements for PTO type 4 of tractors (see Clause 1, 4, 5, 6, 7 of this Edition);
- modified the requirements for rotation direction of tractor PTO (see 4.2 of this Edition, 4.2 of Edition 2008);
- added the method of determination for standard rotary speed of PTO (see

4.3 of this Edition);

- modified the recommended PTO powers at engine rated rotary speed (see Table 1 of this Edition, Table 1 of Edition 2008);
- deleted "the recommended PTO powers at engine rated rotary speed are determined in accordance with OECD Rule 1 or Rule 2" (see Table 1 of Edition 2008);
- added PTO rotary speed, spline, diameter specification and type code (see Table 1);

Agricultural tractors - Rear-mounted power take-off
types 1, 2, 3 and 4 - Part 1: General specifications,
safety requirements, dimensions for master shield
and clearance zone

1 Scope

This Part of GB/T 1592 specifies general specifications for rear-mounted power take-off types 1, 2, 3 and 4 of agricultural tractors of which the minimum track is greater than 1150 mm, including speed, safety requirements, master shield size and clearance zone of power take-off (for the requirements for the agricultural tractors of which the minimum track is less than or equal to 1150 mm, see GB/T 1592.2).

This Part is applicable to rear-mounted power take-off of agricultural tractors (hereinafter referred to as the power take-off / PTO).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 3871.3, Agricultural tractors - Test procedures - Part 3: Power tests for power take-off (GB/T 3871.3-2006, ISO 789-1:1990, MOD)

GB/T 17126.2, Agricultural Tractors and Machinery - Power Take-Off Drive Shafts and Power-Input Connection - Part 2: Specification for Use of PTO Drive Shafts, And Position and Clearance of PTO Drive Line and PIC for Various Attachments (GB/T 17126.2-2009, ISO 5673-2:2005, IDT)

GB/T 19408.1, Agricultural vehicles - Mechanical connections between towed and towing vehicles - Part 1: Dimensions of hitch-hooks (GB/T 19408.1-2003, ISO 6489-1:2001, IDT)

GB/T 19408.2, Agricultural vehicles - Mechanical connections between towed and towing vehicles - Part 2: Specifications for clevis coupling 40 (GB/T 19408.2-2009, ISO 6489-2:2002, IDT)

GB/T 19408.3, Agricultural vehicles - Mechanical connections between towed and towing vehicles - Part 3: Tractor drawbar (GB/T 19408.3-2009, ISO 6489-3:2004, IDT)

GB/T 19408.4, Agricultural vehicles - Mechanical connections between towed and towing vehicles - Part 4: Dimensions of piton-type coupling (GB/T 19408.4-2009, ISO 6489-4:2004, IDT)

ISO 6489-5:2011, Agricultural vehicles - Mechanical connections between towed and towing vehicles - Part 5: Specifications for non-swivel clevis couplings

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 power take-off; PTO

an external drive shaft for transmitting rotational power to farm tool at the rear of a tractor

4.2 The direction of rotation of PTO is clockwise when viewed from behind the tractor. Unless it is a PTO synchronized with the drive wheels, when the tractor is driving in reverse, it can rotate counterclockwise.

4.3 The standard speed of PTO can be reached within one or more speed ranges of the engine.

NOTE: The standard rotary speed of PTO is the speed at 80%~90% of the engine's nominal speed.

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