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GB/T 3372-2010

Replacing GB/T 3372-2000

Rims series for tractors, agricultural and forestry machines

拖拉机和农业、林业机械用轮辋系列

(ISO 4251-3:2006, Types (ply rating marked series) and rims for agricultural tractors and machines - Part 3: Rims, NEQ)

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Issued by: General Administration of Quality Supervision, Inspection and Quarantine of PRC;

Standardization Administration of PRC.

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Foreword

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

This standard replaces GB/T 3372-2000 "Rims series for tractors, agricultural and forestry machines".

The main differences between this standard and GB/T 3372-2000 are as follows:

- DELETE the ISO foreword;
- ADD the rim contour term (Chapter 3 of this edition);
- ADD the rim marking requirements (Chapter 4 of this edition);
- ADD the rim load requirements (Chapter 5 of this edition);
- ADD the I-55, I-70, I-90 5° deep groove rim (DC) and I-55, I-70, I-90 5° split rim (DT) (see 7.6); 5° full-sloping bottom rim (TB), which is used for nominal rim diameter code 21, 24, 25 (see 7.8); 5° semi-deep groove rim (SDC), which is used for nominal rim diameter code 20, 24, 32 (see 7.9); garden tires A-type 5° deep groove rim (DC) and split rim (DT) (see 7.10); high-trafficability agricultural tire rim HF type flat bottom rim (FB) (see 7.11) and all-terrain vehicle tire AT type rim (see 7.12).

The degree of consistency between this standard and the international standard ISO 4251-3:2006 "Types (ply rating marked series) and rims for agricultural tractors and machines - Part 3: Rims" is nonequivalent.

This standard was proposed by the China Petroleum and Chemical Industry Federation.

This standard shall be under the jurisdiction of the National Tire and Rim Standardization Technical Committee (SAC/TC 19).

Drafting organizations of this standard: Hangzhou Zhongce Rubber Co., Ltd., Shandong Linglong Tire Co., Ltd., National Tractor Quality Supervision and Inspection Center, Beijing Rubber Industry Research and Design Institute.

The main drafters of this standard: Chen Guohua, Chen Shaomei, Li Lechen, Qi Jinfeng, Xu Lihong.

This standard replaces the standard previously issued as follows:

- GB/T 3372-1989, GB/T 3372-2000.

Rims series for tractors, agricultural and forestry machines

1 Scope

This standard specifies the terminology, marking, load, diameter, circumference, rim contour size, valve hole, rim bead seat's rolling pattern for tractors, agricultural and forestry machines.

This standard applies to rims for tractors and agricultural and forestry machines.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this standard.

GB/T 9769 Rim contour measure

3 Terms of rim contour

The terminology of the rim contour is as shown in Figure 1. The fit of tire and rim is as shown in Figure 2.

A - Rim's calibration width; B - Rim width; C - Size of rim radius position; D - Rim's

calibration diameter; F_1, F_2 - Position size of the valve hole on the rim; G - Rim height; H - Depth of groove bottom; D_F - Peak diameter of bead seat; L - Width of groove bottom; M - Position size of the groove; P - Width of bead seat; R_1 - Rim's joint radius; R_2 - Rim radius; R_3 - Bead seat's fillet radius; R_4 - Groove top's fillet radius; R_5 - Fillet radius of groove bottom; R_6 - Rim end's fillet radius; R_7 - Groove side radius; V - Size of the valve hole or groove; α - Angle of groove bottom; β - Angle of bead seat.

Note 1: The size marked with * is related to the installation and disassembly of the tire on the rim. It is the minimum size of the rim's groove bottom. M represents the limit size of the groove bottom position.

Note 2: Groove top's fillet radius R_4 and groove bottom's angle α are important parameters for tire installation and removal on the rim.

Note 3: Installation plane, that is, the tire is loaded into the rim from this side or the tire is removed from this side. For multi-piece rims, the installation plane is the side of the rim that can be removed.

4 Markings

The specification name of the rim is represented in the form of "nominal rim diameter ×/- nominal rim width rim contour", or "nominal rim width rim contour ×/- nominal rim diameter"; examples are as shown in Table 1.

10.50I-12	or 12-10.50I	10.50	I	12	
a "x" means one-piece rim; "-" means multi-piece rim.					

5 Load

The load and air pressure applied to the rim/wheel shall not exceed the maximum value recommended by the rim/wheel manufacturer. This value can be engraved on the rim/wheel. When there is no such marking on the rim/wheel or the use condition exceeds its recommended value, it shall negotiate with the rim/wheel manufacturer, to ensure that the rim/wheel is not damaged under the expected use conditions.

6 Rim diameter and circumference

6.1 Rim diameter

The corresponding relationship between the nominal diameter code D_R of the rim and the calibration diameter D shall meet the requirements of Table 2 and Figure 3.

The calibrated diameter D is derived from the nominal diameter code D_R as follows:

a) $D_R \leq 16$ (excluding $D_R = 15.3$)

$D = 25.4 \times (D_R - 0.03125)$;

b) $D_R = 15.3$

$D = 25.4 \times 15.288$;

c) $D_R = 16.1$

$D = 25.4 \times 16.04375$;

d) $D_R > 16.1$

$D = 25.4 \times (D_R + 0.1875)$;

6.2 Rim circumference

The rim circumference L can be calculated from the diameter D:

$L = 3.14159 \times D$

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