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**Agricultural tractor drive wheel  
tyres — Explanation of rolling  
circumference index (RCI) and speed  
radius index (SRI) and method of  
measuring tyre rolling circumference**

*Pneumatiques pour roues motrices de tracteurs agricoles —  
Explication de l'indice de circonférence de roulement (RCI) et de  
l'indice de rayon de roulement (SRI) et de la méthode de mesure de la  
circonférence de roulement*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*, Subcommittee SC 5, *Agricultural tyres and rims*.

This second edition cancels and replaces the first edition (ISO 11795:1997), which has been technically revised. It also incorporates the Amendment ISO 11795:1997/Amd.1:2010.

## Introduction

Matching front and rear wheels with different tyre sizes on four-wheel drive agricultural tractors requires accurate rolling circumference values. The test method to determine rolling circumference outlined in this document was developed to follow this requirement. The values thus obtained are not intended for use as levels of performance or quality.

The test speed has been set at typical working speed when the four-wheel drive will likely be engaged and the most critical match is required. Generally, the four-wheel drive is disengaged at road speeds. Therefore, the determination of rolling circumference is not related to the tyre's maximum speed, e.g. 30 km/h or 40 km/h. Nevertheless, other speeds or conditions may be run provided it is clearly documented in the results.



# Agricultural tractor drive wheel tyres — Explanation of rolling circumference index (RCI) and speed radius index (SRI) and method of measuring tyre rolling circumference

## 1 Scope

This document specifies the method for measuring rolling circumference for new tyres, under loaded conditions, made for use on agricultural tractors and machines, and applies to agricultural tractor drive wheel tyres in diagonal and radial construction. It also includes an explanation of the rolling circumference index (RCI) and speed radius index (SRI).

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 4251-1, *Tyres (ply rating marked series) and rims for agricultural tractors and machines — Part 1: Tyre designation and dimensions, and approved rim contours*

ISO 4251-2, *Tyres (ply rating marked series) and rims for agricultural tractors and machines — Part 2: Tyre load ratings*

ISO 7867-1, *Metric series for agricultural, forestry machines and construction tyres — Part 1: Tyre designation, dimensions and marking, and tyre/rim coordination*

ISO 7867-2, *Metric series for agricultural, forestry machines and construction tyres — Part 2: Load ratings for agricultural tyres*

ISO 8664, *Tyres for agricultural tractors and machines — Code-designated and service-description marked radial drive-wheel tyres*

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

### 3.1

#### rolling circumference of tyre

distance that the (axle) centre of the tyre moves in one revolution of the tyre under specified conditions

Note 1 to entry: Test conditions are specified in [Clause 5](#).

## 4 Principle

The measurement consists of driving a typical vehicle equipped with the test tyres on the drive axle, on a straight, level road at a constant speed, and counting the number of tyre revolutions (or portions thereof) that occur while traversing a measured distance.