

**Tänavaliikluseks mittemõeldud ratsa-asendis juhitavad inimeste transpordiks kavandatud mootorsõidukid. Kahe järjestikku rattaga mootorsõidukid. Ohutusnõuded ja katsemeetodid**

**Ride-on, motorized vehicles intended for the transportation of persons and not intended for use on public roads - Single-track two-wheel motor vehicles - Safety requirements and test methods**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 16029:2012 sisaldab Euroopa standardi EN 16029:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 16029:2012 consists of the English text of the European standard EN 16029:2012.
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ICS 43.140

English Version

**Ride-on, motorized vehicles intended for the transportation of  
persons and not intended for use on public roads - Single-track  
two-wheel motor vehicles - Safety requirements and test  
methods**

Véhicules motorisés chevauchables destinés au transport  
des personnes et non destinés à un usage sur la voie  
publique - Véhicules motorisés à deux roues monotraces -  
Exigences de sécurité et méthodes d'essai

Motorisierte (ride-on) Fahrzeuge ohne Zulassung für den  
öffentlichen Straßenverkehr, bestimmt für den Transport  
von Personen - Einspurige zweirädrige Kraftfahrzeuge -  
Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 11 February 2012.

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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN 16029:2012) has been prepared by Technical Committee CEN/TC 354 "Ride-on, motorized vehicles intended for the transportation of persons and goods and not intended for use on public roads - Safety requirements", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2012, and conflicting national standards shall be withdrawn at the latest by December 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights other than those identified above. CEN [and/or] CENELEC shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

This European Standard has been prepared to be a harmonised standard to provide a means of conforming to the essential safety requirements of the Machinery Directive and associated EFTA regulations.

This standard covers single-track two-wheel motor vehicles not intended to be used on public roads. These vehicles are ridden by both adults and children.

Vehicles within the scope of this standard and intended to be used by children are specifically designed and manufactured for young users. Specific requirements are given in this standard for these vehicles.

This standard defines specific requirements for the marking of small vehicles intended for use only by adults which, because of their size, can be ridden by children.

The importance of providing vehicles which are safe when used by children is recognised. The safety of children is dependent on the design of the vehicle and the information provided with it. However, no matter how good the design and information is, safe use will always be reliant on suitable training, experience, maturity of the rider, assessment of ability and supervision by carers, especially for novice riders.

To reflect the importance of child safety, further research will be started immediately after publication of the standard to enable the standard to be revised as soon as additional design measures and guidance have been established.

The structure of safety standards in the field of machinery is as follows:

- a) Type-A standards (basis standards) give basic concepts, principles for design, and general aspects that can be applied to machinery.
- b) Type-B standards (generic safety standards) deal with one or more safety aspect(s) or one or more type(s) of safeguards that can be used across a wide range of machinery:
  - 1) type-B1 standards on particular safety aspects (e.g. safety distances, surface temperature, noise);
  - 2) type-B2 standards on safeguards (e.g. two-hand controls, interlocking devices, pressure-sensitive devices, guards).
- c) Type-C standards (machinery safety standards) deal with detailed safety requirements for a particular machine or group of machines.

This document is a type C standard as stated in EN ISO 12100.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

The machinery concerned and the extent to which hazards, hazardous situations and hazardous events are covered are indicated in the scope of this document.



## 1 Scope

This European Standard specifies the safety requirements and the test methods for single-track two-wheel motor vehicles, driven by a rider sitting astride. This European Standard deals with all significant hazards, hazardous situations and events relevant to single-track two-wheel motor vehicles propelled by a spark ignited internal combustion engine (hereinafter referred to as "vehicles"), when they are used as intended and under the conditions of misuse which are reasonably foreseeable by the manufacturer.

The vehicles covered by this European Standard are not intended to be used on public roads.

The vehicles covered by this European Standard are intended only for the rider and not for passengers.

This European Standard does not cover vehicles propelled with gaseous fuels.

This European Standard specifies the appropriate measures to eliminate or reduce the risks arising from the significant hazards, hazardous situations and events (see Clause 4) during commissioning, operation and maintenance of the vehicles when carried out in accordance with the specifications as intended by the manufacturer.

This European Standard is not applicable to vehicles which are manufactured before the date of publication of this European Standard by CEN.

## 2 Normative references

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

EN 614-1, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

EN 61310-1, *Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, acoustic and tactile signals*

EN ISO 3744, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane (ISO 3744)*

EN ISO 4871:2009, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 11201, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections (ISO 11201)*

EN ISO 11102-2, *Reciprocating internal combustion engines — Handle starting equipment — Part 2: Method of testing the angle of disengagement (ISO 11102-2)*

EN ISO 12100:2010, *Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 14314, *Reciprocal internal combustion engines — Recoil starting equipment — General safety requirements (ISO 14314)*

ISO 3864-2, *Graphical symbols — Safety colours and safety signs — Part 2: Design principles for product safety labels*

ISO 4249-1, *Motorcycle tyres and rims (Code-designated series) — Part 1: Tyres*

ISO 5751-1, *Motorcycle tyres and rims (metric series) — Part 1: Design guides*

ISO 6054-1, *Motorcycle tyres and rims (Code-designated series) — Diameter codes 4 to 12 — Part 1: Tyres*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and the following apply.

#### 3.1 **mass in running order**

unladen mass to which the mass of the following components is added:

- fuel: tank filled to at least 90% of the capacity stated by the manufacturer,
- additional equipment installed in or fitted to the vehicle by the manufacturer in addition to that needed for normal operation (tool kit, luggage carrier, windscreen, protective equipment, etc.)

#### 3.2 **technical permissible mass**

sum of the mass of the vehicle in running order and the maximum payload (rider, cargo, etc.) as indicated by the manufacturer

#### 3.3 **seat**

part of the vehicle that has been designed for the rider to sit on

#### 3.4 **footrests**

element provided on either side of the vehicle on which the rider places his feet when seated in the riding position

#### 3.5 **mudguard**

part above the wheels of a vehicle that prevents dirt or ejected objects from getting on the rider

#### 3.6 **exhaust system**

combination of the exhaust pipe, the expansion box, the exhaust silencer and the catalytic converter (if any)

#### 3.7 **manual fuel shut-off**

manual device designed to turn the fuel flow from the fuel tank on and off

#### 3.8 **steering system**

set of connected items or devices which operate together to cause the vehicle to go in the direction required

#### 3.9 **manual starter**

hand or foot operated device intended to initiate the operation of the engine

#### 3.10 **ignition system**

system in a spark-ignited internal combustion engine that ignites the mixture by producing a spark