

RAUDTEEALASED RAKENDUSED.
RAUDTEEINFRASTRUKTUUR. RÖÖBASTE
MITTEPURUSTAV KONTROLL RÖÖBASTEES. OSA 3:
NÕUDED RÖÖBASTE SISEMISTE JA PINNADEFEKTIDE
TUVASTAMISEKS

Railway applications - Infrastructure - Non-destructive
testing on rails in track - Part 3: Requirements for
identifying internal and surface rail defects

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 16729-3:2018 sisaldab Euroopa standardi EN 16729-3:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 16729-3:2018 consists of the English text of the European standard EN 16729-3:2018.
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English Version

**Railway applications - Infrastructure - Non-destructive
testing on rails in track - Part 3: Requirements for
identifying internal and surface rail defects**

Applications ferroviaires - Infrastructure - Essais non
destructifs sur les rails de voie - Partie 3 : Exigences
pour l'identification des défauts internes et de surface
des rails

Bahnanwendungen - Infrastruktur - Teil 3:
Anforderungen zur Identifizierung von inneren
Fehlern und Schienenoberflächenfehlern

This European Standard was approved by CEN on 22 January 2018.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 16729-3:2018) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2018, and conflicting national standards shall be withdrawn at the latest by October 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN 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 2008/57/EC.

For relationship with EU Directive 2008/57/EC, see informative Annex ZA, which is an integral part of this document.

This series of European Standards EN 16729 “Railway applications – Infrastructure – Non-destructive testing on rails in track” consists of the following parts:

- *Part 1: Requirements for ultrasonic inspection and evaluation principles;*
- *Part 2: Eddy current testing of rails in track (in preparation);*
- *Part 3: Requirements for identifying internal and surface rail defects;*
- *Part 4: Qualification of personnel for non-destructive testing on rails (in preparation).*

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

Introduction

This European Standard represents the actual state of the art of identifying surface and internal rail defects of rails in track applied by European railway companies.

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1 Scope

This part of this European Standard specifies the NDT methods used to detect internal and surface rail defects and the suitability of each method for the detection and evaluation of typical rail defects of rails installed in track.

This part of this European Standard does not specify the assessment criteria of rail defects and the derived actions.

This part of this European Standard applies only to rail profiles meeting the requirements of EN 13674-1.

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.

EN 16729-1:2016, *Railway applications - Infrastructure - Non-destructive testing on rails in track - Part 1: Requirements for ultrasonic inspection and evaluation principles*

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 <http://www.iso.org/obp>

3.1 damaged rail

rail which is neither cracked nor broken, but which has other defects

3.2 cracked area

part of the rail with a localized discontinuity of material

3.3 broken rail

rail which has separated into two or more pieces;

or

rail from which a piece of metal becomes detached from the rail head, with a gap of more than 50 mm in length and more than 10 mm in depth resulting in a running band less than 30 mm in width

Note 1 to entry: See Figure 1 and Figure 2 for the first part of the definition, and Figure 3 for the second part.