

Railway application - Suspension components - Parabolic springs, steel

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14200:2004 sisaldab Euroopa standardi EN 14200:2004 ingliskeelset teksti. Käesolev dokument on jõustatud 18.05.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 14200:2004 consists of the English text of the European standard EN 14200:2004. This document is endorsed on 18.05.2004 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: This European Standard applies to parabolic springs as spring elements for rail vehicles.	Scope: This European Standard applies to parabolic springs as spring elements for rail vehicles.
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ICS 45.040

Võtmesõnad: acceptance testing, buildings, extensions (buildings), packing, railroad cars, railroad vehicles, railway vehicle, railways, resilience, selection, shape, shock absorbing springs, specification (approval), specifications, springiness, springs, steel springs, testing

ICS 45.040

English version

Railway applications - Suspension components - Parabolic springs, steel

Applications ferroviaires - Eléments de suspension -
Ressorts paraboliques, en acier

Bahnanwendungen - Federungselemente - Parabelfedern
aus Stahl

This European Standard was approved by CEN on 3 November 2003.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 14200:2004) 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 July 2004, and conflicting national standards shall be withdrawn at the latest by July 2004.

The work has been delegated by subcommittee 2 "Wheelsets and bogies" to Working Group 14 "Steel springs".

The annexes A, B, C and D are normative.

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

Introduction

Preparation of this European Standard was started at the beginning of 1998 with the aim of integrating the existing documents such as UIC leaflets (International Union of Railways), and the internal standards of the various railways into a comprehensive standard.

1 Scope

This European Standard applies to parabolic springs as spring elements for rail vehicles.

This European Standard is a guide to the following subjects:

- design;
- specification of technical and qualitative requirements;
- approval procedures and quality assurance of production methods;
- tests and inspections to be carried out;
- delivery conditions.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 473, *Non-destructive testing – Qualification and certification of NDT personnel – General principles.*

EN 499, *Welding consumables – Covered electrodes for manual metal arc welding of non alloy and fine grain steels – Classification.*

EN 10002-1, *Metallic materials – Tensile testing – Part 1: Method of test at ambient temperature.*

EN 10025, *Hot rolled products of non-alloy structural steels – Part 1: Technical delivery conditions.*

EN 10045-1, *Metallic materials – Charpy impact test – Part 1: Test method.*

EN 10089:2002, *Hot-rolled steels for quenched and tempered springs – Technical delivery conditions.*

EN 10092-1, *Hot-rolled spring steel flat bars – Part 1: Flat bars – Dimensions and tolerances on shape and dimensions.*

EN 10142, *Continuously hot-dip zinc coated low carbon steels strip and sheet for cold forming – Technical delivery conditions.*

EN 22768-1, *General tolerances – Part 1: Tolerances for linear and angular dimensions without individual tolerance indications (ISO 2768-1:1989).*

EN 25817, *Arc-welded joints in steel – Guidance on quality levels for imperfections (ISO 5817:1992).*

ENV 10247, *Micrographic examination of the nonmetallic inclusion content of steels using standard pictures.*

EN ISO 2162-3, *Technical product documentation – Springs – Part 3: Vocabulary (ISO 2162-3:1993).*

EN ISO 3098-2, *Technical product documentation – Lettering – Part 2: Latin alphabet, numerals and marks (ISO 3098-2:2000)*.

EN ISO 6506-1, *Metallic materials – Brinell hardness test – Part 1: Test method (ISO 6506-1:1999)*.

ISO 1101, *Technical drawings – Geometrical tolerancing – Tolerancing of form, orientation, location and run-out – Generalities, definitions, symbols, indications on drawings*.

ISO 9227, *Corrosion tests in artificial atmospheres – Salt spray tests*.

ISO/TR 10108, *Steel – Conversion of hardness values to tensile strength values*.

EURONORM 103, *Microscopic determination of the ferrite or austenitic grain size of steels*.