

**Raudteealased rakendused. Teljelaagripuksides
kasutatavad määrdeained. Osa 1: Meetod
määrimisvõime katsetamiseks**

Railway Applications - Axlebox lubricating greases -
Part 1: Method to test the ability to lubricate

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14865-1:2009 sisaldab Euroopa standardi EN 14865-1:2009 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 30.04.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 18.03.2009.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14865-1:2009 consists of the English text of the European standard EN 14865-1:2009.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 30.04.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 18.03.2009.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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ICS 45.040, 75.100

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English Version

Railway Applications - Axlebox lubricating greases - Part 1: Method to test the ability to lubricate

Applications ferroviaires - Graisses lubrifiantes pour boîtes d'essieux - Partie 1 : Méthode d'essai d'aptitude à lubrifier les véhicules circulant à des vitesses classiques jusqu'à 200 km/h et les véhicules circulant à grande vitesse jusqu'à 300 km/h

Bahnanwendungen - Schmierfette für Radsatzlager - Teil 1: Prüfung der Schmierfähigkeit von Radsatzlagern von Schienenfahrzeugen für normale Geschwindigkeiten bis 200 km/h und für Hochgeschwindigkeitsfahrzeuge bis 300 km/h

This European Standard was approved by CEN on 17 January 2009.

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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 CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN 14865-1:2009) 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 September 2009, and conflicting national standards shall be withdrawn at the latest by September 2009.

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

This European Standard has been prepared under a mandate given to CEN/CENELEC/ETSI by the European Commission and the European Free Trade Association to support Essential Requirements of EU Directive 2001/16, as modified by EU Directive 2004/50.

For relationship with EU Directives, see informative Annex ZA, which is an integral part of this document.

This series of standards EN 14865 "*Railway applications – Axlebox lubricating greases*" consists of the following parts:

- *Part 1: Method to test the ability to lubricate;*
- *Part 2: Method to test the mechanical stability to cover vehicle speeds up to 200 km/h.*

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, 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 and the United Kingdom.

Introduction

This European Standard standardizes a test method and acceptance criteria for the demand in EN 12081 for testing the ability of greases to lubricate axlebox bearings. It addresses the issue of lubricating ability of lubricating greases operating under severe conditions.

All lubricants have three main functions: to form a lubricating film that separates rolling elements and raceways, to protect the bearing from corrosion and give good longevity. For lubricating greases in axleboxes there is also the demand that the product must keep the lubricating ability, sometimes without relubrication, during very long periods of time under arduous operating and environmental conditions.

The testing procedure in this European Standard is severe and is used to discriminate between lubricating greases of different lubricating ability.

1 Scope

This European Standard specifies a testing method and sets the acceptance criteria for the determining of the lubrication ability of lubricating greases intended for the lubrication of axlebox bearings. The lubricating ability, primarily related to the capability of lubricating greases to protect against wear, is determined in a roller bearing lubricant test rig. Wear of the rolling bearing rollers, the frictional behaviour and temperature during the test are used to discriminate between lubricating greases.

NOTE 1 The testing method is referred to in EN 12081.

The method described is carried out in order to test axlebox greases for ordinary-speed vehicles, with speeds up to 200 km/h, and for greases intended for high-speed vehicles, with speeds up to 300 km/h. The method is a discriminating process, and those greases that pass will be subject to more extensive performance tests.

NOTE 2 In EN 12082 a more extensive rig performance test is described in detail. This rig performance test will check the satisfactory function of the assembly of box housing, bearing, sealing and grease during a simulated journey.

For purpose of quality assurance and quality control, this test method is also used for batch testing of greases intended for use in axleboxes.

For light rail and tramway applications other standards or documents agreed between the customer and the supplier may be applied.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the document (including any amendments) applies.

EN ISO 3170, *Petroleum liquids — Manual sampling (ISO 3170:2004)*

EN ISO 4259:2006, *Petroleum products — Determination and application of precision data in relation to methods of test*

ISO 5725-1:1994, *Accuracy (trueness and precision) of measurement methods and results — Part 1: General principles and definitions*

ISO 5725-2:1994, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*

ISO 5725-6:1994, *Accuracy (trueness and precision) of measurement methods and results — Part 6: Use in practice of accuracy values*