

**Raudteelased rakendused. Mõõtmise meetodid.
Juhikabiinide sisemüra mõõtmise meetodid**

Railway applications - Noise Emission - Measurement of
noise inside driver's cabs

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15892:2011 sisaldab Euroopa standardi EN 15892:2011 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 28.02.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 09.02.2011.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 15892:2011 consists of the English text of the European standard EN 15892:2011.

This standard is ratified with the order of Estonian Centre for Standardisation dated 28.02.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 09.02.2011.

The standard is available from Estonian standardisation organisation.

ICS 17.140.30, 45.060.10

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

Right to reproduce and distribute belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without permission in writing from Estonian Centre for Standardisation.

If you have any questions about standards copyright, please contact Estonian Centre for Standardisation:
Aru str 10 Tallinn 10317 Estonia; www.evs.ee; Phone: 605 5050; E-mail: info@evs.ee

ICS 17.140.30; 45.060.10

English Version

Railway applications - Noise Emission - Measurement of noise inside driver's cabs

Applications ferroviaires - Emission de bruit - Mesurage du
bruit dans la cabine de conduite

Bahnanwendungen - Geräuschemission -
Geräuschmessung im Führerraum

This European Standard was approved by CEN on 24 December 2010.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Measurement quantities.....	6
5 Instrumentation and calibration	6
5.1 Instrumentation	6
5.2 Calibration	6
6 Tests when sounding the external warning horn.....	6
6.1 Test conditions	6
6.1.1 Environmental conditions.....	6
6.1.2 Vehicle conditions	6
6.1.3 Track conditions	7
6.2 Test procedure	7
7 Tests with the vehicle at maximum speed	8
7.1 Test conditions	8
7.1.1 Environmental conditions.....	8
7.1.2 Vehicle conditions	8
7.1.3 Track conditions	9
7.2 Test procedure	9
8 Test report	10
Annex A (informative) Guidance on the quantification of track quality for maximum speed testing	11
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2008/57/EC	13
Bibliography	15

Foreword

This document (EN 15892:2011) 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 August 2011, and conflicting national standards shall be withdrawn at the latest by August 2011.

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 document has been prepared under a mandate given to CEN/CENELEC/ETSI by the European Commission and the European Free Trade Association, and supports essential requirements of the Directive 2008/57/EC.

For relationship with EC Directive 2008/57/EC, 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 and the United Kingdom.

1 Scope

This European Standard specifies a type test method to measure noise levels inside the driver's cabs of railway vehicles for assessing compliance with the relevant European legislation.

NOTE The relevant European legislation includes Directive 2003/10/EC of 6 February 2003 and the Commission Decisions of 23 December 2005 (Technical specification for interoperability relating to the subsystem 'rolling stock — noise' of the trans-European conventional rail system) and of 21 February 2008 (Technical specification for interoperability relating to the 'rolling stock' sub-system of the trans-European high-speed rail system).

This method is applicable to:

- the measurement of noise inside driver's cab resulting from the sounding of external warning horns when the vehicle is stationary;
- the measurement of noise inside the driver cab while the vehicle is running.

The method is not applicable to:

- complementary measurements that can be requested for acceptance tests, but which are not required by the TSIs referred to in this standard;
- the measurement of the noise from internal and external audible devices other than external warning horns;
- routine monitoring of the noise exposure of train crew.

The test procedures specified in this European Standard are of engineering grade (grade 2) with a precision of ± 2 dB, which is the preferred method for noise declaration purposes, as defined in EN ISO 12001.

2 Normative references

The following referenced documents are indispensable for the application 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 15153-2, *Railway applications — External visible and audible warning devices for high speed trains — Part 2: Warning horns*

EN 60942:2003, *Electroacoustics — Sound calibrators (IEC 60942:2003)*

EN 61672-1:2003, *Electroacoustics — Sound level meters — Part 1: Specifications (IEC 61672-1:2002)*

EN 61672-2, *Electroacoustics — Sound level meters — Part 2: Pattern evaluation tests (IEC 61672-2:2003)*

EN ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2005)*

3 Terms and definitions

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