Irish Standard
I.S. EN 15153-2:2013

Railway applications - External visible and audible warning devices for trains - Part 2: Warning horns

I.S. EN 15153-2:2013

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Foreword

This document (EN 15153-2:2013) 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of an identical text or by endorsement, at the latest by July 2013, and conflicting national standards shall be withdrawn at the latest by July 2013.

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 supersedes EN 15153-2:2007.

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.

The main changes with respect to the previous edition are:

— technical requirements have been brought in line with the conventional TSIs;

— UIC frequencies (660 Hz; 370 Hz) have been included;

— clarification of the measurement height for the sound pressure level requirement.

This series of documents *Railway applications — External visible and audible warning devices for trains* consists of the following parts:

— *Part 1: Head, marker and tail lamps;*

— *Part 2: Warning horns.*

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard was produced following a review of EN 15153-2:2007 to incorporate the requirements of rolling stock TSIs.

1 Scope

This European standard defines warning horn requirements which deliver the required audibility of approaching trains, including high speed and conventional rail and excluding road, metro and self-contained systems. For this purpose, the following requirements are included:

— functional and technical requirements of the warning horn as a component,

— functional and technical requirements of the integration of warning horns into the vehicle, and

— test requirements.

Operational requirements for warning horns have been excluded.

NOTE The requirements for the control of warning horns can be found in prEN 16186-1.

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.

prEN 16186-1, *Railway applications — Driver's Cab — Part 1: Visibility, layout, access*

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

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

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

3 Terms and definitions

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

3.1
warning horn
device or assembly capable of producing the specified audible warning tones

3.2
vehicle front
leading edge of the train in its operational condition

Note 1 to entry: This would be the extreme front edge of any of the following - couplers, buffers, structures and vehicle profile.

3.3
C-weighted sound pressure level
$L_{pCeq,T}$
sound pressure level obtained using the frequency weighting C, given by the following formula:

$$L_{pCeq,T} = 10\lg\left(\frac{1}{T}\int_0^T \frac{p_C^2(t)}{p_0^2}dt\right)$$