

საქართველოს სტანდარტი

მექანიკური ვიბრაცია - სამრეწველო სატვირთო მანქანები -ოპერატორის
სავარძლის ვიბრაციის ლაბორატორიული შეფასება და სპეციფიკაცია

საქართველოს სტანდარტებისა და მეტროლოგიის
ეროვნული სააგენტო
თბილისი

სსტ ენ 13490:2001+A1:2008/2019

საინფორმაციო მონაცემები

1 შემუშავებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს სტანდარტების დეპარტამენტის მიერ

2 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს 2019 წლის 6 დეკემბრის № 98 განკარგულებით

3 მიღებულია გარეკანის თარგმნის მეთოდით სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 13490:2001+A1:2008 „მექანიკური ვიბრაცია - სამრეწველო სატვირთო მანქანები -ოპერატორის სავარძლის ვიბრაციის ლაბორატორიული შეფასება და სპეციფიკაცია”

4 პირველად

5 რეგისტრირებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2019 წლის 6 დეკემბერი №268-1.3-016550

დაუშვებელია წინამდებარე სტანდარტის სრული ან ნაწილობრივი კვლავწარმოება, ტირაჟირება და გავრცელება სსიპ საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს ნებართვის გარეშე

English Version

Mechanical vibration - Industrial trucks - Laboratory evaluation and specification of operator seat vibration

Vibrations mécaniques - Chariots industriels - Evaluation
en laboratoire et spécification des vibrations transmises à
l'opérateur par le siège

Mechanische Schwingungen - Flurförderzeuge -
Laborverfahren zur Bewertung sowie Spezifikation der
Schwingungen des Maschinenführersitzes

This European Standard was approved by CEN on 20 August 2001 and includes Amendment 1 approved by CEN on 5 October 2008.

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

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Foreword

This document (EN 13490:2001+A1:2008) has been prepared by Technical Committee CEN/TC 231 "Mechanical vibration and shock", 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 May 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2008-10-05.

This document supersedes EN 13490:2001.

The start and finish of text introduced or altered by amendment is indicated in the text by tags $\boxed{A1}$ $\boxed{A1}$.

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 EC Directive(s).

$\boxed{A1}$ For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. $\boxed{A1}$

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Introduction

The operators of industrial trucks are often exposed to a low-frequency vibration environment mainly caused by the movement of the vehicles over uneven ground. The seat constitutes the last stage of suspension before the driver. To be efficient at attenuating the vibration, the suspension seat should be chosen according to the dynamic characteristics of the vehicle. The performance criteria provided in this European Standard have been set in accordance with what is attainable using what is at present the best design practice. They do not necessarily ensure the complete protection of the operator against effects of vibration and shock. They may be revised in the light of future developments and improvements in suspension design.

Performance criteria obtained in accordance with this European Standard may be useful to manufacturers of industrial trucks when selecting seats for possible use in their products. However, to satisfy fully the requirements of the A_1 EU A_1 Machinery Directive it is important for suppliers of mobile machinery to demonstrate that the seat supplied reduces the vibration in the specified machine to the lowest level that can be reasonably achieved.

The test inputs included in this European Standard are based on a very large number of measurements taken in situ on industrial trucks while they were used under severe but typical operating conditions. The test method is based on EN 30326-1, which is a general method applicable to seats for different types of vehicles.

1 Scope

1.1 This European Standard is applicable to operator seats used on industrial trucks as defined in ISO 5053:1987 irrespective of power supply, type of equipment, lifting mechanism and tyres. It also applies to seats for other trucks not covered by ISO 5053:1987, e.g. variable-reach trucks and lowlift order picking trucks.

1.2 This European Standard specifies, in accordance with EN 30326-1, a laboratory method for measuring and evaluating the effectiveness of the seat suspension in reducing the vertical wholebody vibration transmitted to the operator of industrial trucks at frequencies between 1 Hz and 20 Hz.

1.3 This European Standard defines the input spectral classes required for the following industrial trucks. Each class defines a group of machines having similar vibration characteristics:

- Platform trucks, trucks rider-controlled, etc. with wheel mean diameter below 200 mm and highload non-rubber solid tyres (category 1)¹⁾
- Reach trucks, articulated trucks, etc. with wheel mean diameter below 450 mm and high-load non-rubber solid tyres or cylindrical/conical base rubber solid tyres (category 2)¹⁾
- Straddle trucks, trucks with wheel mean diameter below 645 mm and rubber solid or pneumatic tyres (category 3)¹⁾
- Straddle trucks, trucks with wheel mean diameter between 645 mm and 900 mm and rubber solid or pneumatic tyres (category 4a)¹⁾
- Straddle trucks, trucks with wheel mean diameter between 900 mm and 1 200 mm and rubber solid or pneumatic tyres (category 4b)¹⁾
- Trucks with wheel mean diameter between 1 200 mm and 2 000 mm and rubber solid or pneumatic tyres (category 5)¹⁾