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3 პირველად

4 რეგისტრირებულია: სსიპ-საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 07/07/2023 წლის №268-1.3-030149

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English Version

Road restraint systems - Part 2: Performance classes, impact test acceptance criteria and test methods for safety barriers including vehicle parapets

Dispositifs de retenue routiers - Partie 2: Classes de performance, critères d'acceptation des essais de choc et méthodes d'essai pour les barrières de sécurité incluant les barrières de bord d'ouvrage d'art

Rückhaltesysteme an Straßen - Teil 2: Leistungsklassen, Abnahmekriterien für Anprallprüfungen und Prüfverfahren für Schutzeinrichtungen und Fahrzeugbrüstungen

This European Standard was approved by CEN on 29 April 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 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 Management Centre has the same status as the official versions.

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Foreword

This document (EN 1317-2:2010) has been prepared by Technical Committee CEN/TC 226 "Road equipment", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by January 2011, and conflicting national standards shall be withdrawn at the latest by January 2011.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 supersedes EN 1317-2:1998.

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(s).

EN 1317 consists of the following parts:

- EN 1317-1, *Road restraint systems — Part 1: Terminology and general criteria for test methods*;
- EN 1317-2, *Road restraint systems — Part 2: Performance classes, impact test acceptance criteria and test methods for safety barriers including vehicle parapets*;
- EN 1317-3, *Road restraint systems — Part 3: Performance classes, impact test acceptance criteria and test methods for crash cushions*;
- ENV 1317-4, *Road restraint systems — Part 4: Performance classes, impact test acceptance criteria and test methods for terminals and transitions of safety barriers*;
- prEN 1317-4, *Road restraint systems — Part 4: Performance classes, impact test acceptance criteria and test methods for transitions of safety barriers* (under preparation: this document will supersede ENV 1317-4:2001 for the clauses concerning transitions);
- EN 1317-5, *Road restraint systems — Part 5: Product requirements and evaluation of conformity for vehicle restraint systems*;
- prEN 1317-6, *Road restraint systems — Pedestrian restraint systems — Part 6: Pedestrian Parapet* (under preparation);
- prEN 1317-7, *Road restraint systems — Part 7: Performance classes, impact test acceptance criteria and test methods for terminals of safety barriers* (under preparation: this document will supersede ENV 1317-4:2001 for the clauses concerning terminals);
- prEN 1317-8, *Road restraint systems — Part 8: Motorcycle road restraint systems which reduce the impact severity of motorcyclist collisions with safety barriers* (under preparation).

Annex A is normative and Annex B is informative.

The significant technical changes incorporated in this revision are:

3.2 Containment levels

In Table 2 the new containment classes L1, L2, L3, L4a and L4b have been added, requiring the same tests of the corresponding H classes plus the test TB 32.

3.3 Impact severity

The requirement for the index PHD (Post impact Head Deceleration) has been cancelled. Only ASI and THIV are required.

3.5 Deformation of the restraint system

New requirement on the accuracy of measurement of Dynamic Deflection and Working Width:

The accuracy required for the measurement of the dynamic deflection and for the working width shall be 10 % but not less than 0,1 m.

New definition of vehicle intrusion (VI).

New definitions of Normalised Dynamic Deflection D_N , Normalised Working Width W_N and Normalised Vehicle Intrusion VI_N .

Table 4 – Levels of working width based on the normalised values

Table 5 – Levels of normalised vehicle intrusion (new item)

4 Impact test acceptance criteria

Table 6 – Safety barrier test parameters includes containment levels L

4.2 Safety barrier including parapet behaviour

The first two sentences of the paragraph in the 1998 text:

The safety barrier shall contain and redirect the vehicle without complete breakage of the principal longitudinal elements of the system.

No major part of the safety barrier shall become totally detached or present an undue hazard to other traffic, pedestrians or personnel in a work zone.

are replaced by:

The safety barrier including parapet shall contain the vehicle without complete breakage of any of the principal longitudinal elements of the system.

All totally detached parts of the safety barrier with a mass greater than 2,0 kg shall be identified, located and recorded in the test report with their size.

4.3 Test vehicle behaviour

The first two sentences of the paragraph in the 1998 text:

The centre of gravity of the vehicle shall not cross the centreline of the deformed system.

The vehicle shall remain upright during and after impact, although moderate rolling, pitching and yawing are acceptable.

are replaced by:

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

During and after the impact, no more than one of the wheels of the vehicle shall completely pass over or under the safety barrier.

The vehicle shall not roll over (including rollover of the vehicle onto its side) during or after impact.

For tests with HGVs and buses, not more than 5 % of the mass of the ballast shall become detached or be spilt during the test up to the time when the wheel tracks of the vehicle leaves the exit box.

4.4 Severity Index

The requirement for the index PHD (Post impact Head Deceleration) has been cancelled. Only ASI and THIV are required.

4.7 Tests for system type tested safety barriers (Families of barriers)

New specifications for families of barriers.

5 Test methods

The specifications of 5.1 "Test Site" and 5.2 "Test Vehicles" are moved to Part 1.

5.3.2 Installation

This subclause has been entirely revised with detailed requirements on the test length, end anchorages, pretensioned systems and infilling of vehicle pedestrian parapets.

5.3.3 Position of the impact point

New requirement:

If the test house chooses an impact point other than that at a point about one third of the installation length, in order to ensure worst-case conditions, then this choice shall be justified in the test report.

5.5 Vehicle instrumentation

The specifications of 5.5 are moved to Part 1.

5.6 Photographic coverage

New requirement:

Normal speed cameras shall be operated at a minimum of 24 frames per second.

Annex A – Detailed Test Report Template

New normative item.

Annex B – Criteria for sufficient test length evaluation

New informative item on a possible criterion to evaluate the adequacy of the length of the test installation.

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.