

ICS 43.040.80; 43.080.10

English Version

**Road restraint systems - Truck Mounted Attenuators -
Performance classes, impact test acceptance criteria and
test performance**

Dispositifs de retenue routiers - Atténuateurs de choc
montés sur camions - Classes de performance, critères
d'acceptation des essais de choc et méthodes d'essai

Rückhaltesysteme an Straßen -
Transportfahrzeuggestützte mobile Anprallverzögerer
(TMA) - Leistungsklassen, Abnahmekriterien für
Anprallprüfungen und Prüfungsleistungen

This Technical Specification (CEN/TS) was approved by CEN on 13 November 2017 for provisional application.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Contents	Page
European foreword.....	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	5
4 Abbreviations	6
5 Test parameters.....	7
5.1 Test site.....	7
5.2 Test vehicles.....	7
5.2.1 Impacting vehicles	7
5.2.2 Mobile carrier.....	8
5.2.3 Location of the ATD	9
5.3 Test matrix	9
5.4 Accuracies and limit deviations of impact speeds and approach angle.....	12
5.4.1 Vehicle impact speed	12
5.4.2 Vehicle approach angle.....	12
5.4.3 Combined limit deviation of speed and angle.....	12
6 Photographic coverage	13
7 Information to be reported	14
7.1 General.....	14
7.2 General test information	14
7.3 Structural adequacy	14
7.4 Deformation of mobile carrier	14
7.5 Deformation of impacting vehicle.....	15
7.6 Trajectory of the whole system.....	15
7.7 Trajectory of impacting vehicle	15
7.8 Severity indices.....	15
8 Evaluation criteria	16
8.1 General.....	16
8.2 Structural adequacy	16
8.3 Deformation of impacting vehicle and mobile carrier	16
8.4 Trajectory of impacting vehicle	16
8.5 Severity index.....	16
Bibliography.....	17

European foreword

This document (CEN/TS 16786:2018) has been prepared by Technical Committee CEN/TC 226 “Road equipment”, the secretariat of which is held by AFNOR.

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Introduction

Truck Mounted Attenuators (TMAs) are designed to protect occupants of impacting passenger motor vehicles from impacts with the rear of stationary or slow-moving mobile carriers used in work zones and during maintenance operations. During an impact with a TMA, the mobile carrier is accelerated forward as the impacting vehicle is decelerated. This can, in turn, pose a risk to road workers in front of the support vehicle.

This Technical Specification aims to conduct impact testing of whole TMA systems to establish the severity of an impact with the whole system, and to establish the trajectory of the impacting vehicle and mobile carrier following the impact.

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1 Scope

This Technical Specification establishes test methods for whole Truck Mounted Attenuator systems (TMAs) under impact.

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.

EN 1317-1:2010, *Road restraint systems — Part 1: Terminology and general criteria for test methods*

EN 13036-4, *Road and airfield surface characteristics — Test methods — Part 4: Method for measurement of slip/skid resistance of a surface: The pendulum test*

ISO 8349, *Road vehicles — Measurement of road surface friction*

ISO 10392, *Road vehicles — Determination of centre of gravity*

3 Terms and definitions

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

3.1

whole system

TMA, mobile carrier and any elements connecting the TMA and the mobile carrier

3.2

TMA

energy absorbing device fitted to a mobile carrier to reduce the severity of an impact with an impacting vehicle

3.3

mobile carrier

vehicle to which the TMA is attached

3.4

impacting vehicle

motor vehicle impacting the whole system during the type test

3.5

vehicle

any motor vehicle or its trailer as defined in 3.5.1 and 3.5.2

3.5.1

motor vehicle

any power-driven roadworthy vehicle which is moved by its own means, having four or more wheels

3.5.2

trailer

any non-self-propelled vehicle on wheels which is designed and constructed to be towed by a motor vehicle