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Railway applications - Track - Track geometry quality - Part 4: Measuring systems - Manual and lightweight devices

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

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English Version

**Railway applications - Track - Track geometry quality - Part 4:
Measuring systems - Manual and lightweight devices**

Applications ferroviaires - Voie - Qualité géométrique de la
voie - Partie 4: Systèmes de mesure - Dispositifs manuels
et de faible poids

Bahnanwendungen - Oberbau - Qualität der Gleisgeometrie
- Teil 4: Messsysteme - Handgeführte und leichte
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Contents

	Page
Foreword.....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Symbols and abbreviations	7
5 Track geometry measuring system fitted on trolleys or on manually operated devices	8
5.1 Introduction	8
5.2 General description	8
5.2.1 General description: TGMT.....	8
5.2.2 General description: MOD	9
5.3 Environmental conditions.....	10
5.3.1 Introduction	10
5.3.2 Climatic conditions.....	10
5.3.3 Operating conditions.....	10
5.4 Track features input	10
5.4.1 General.....	10
5.4.2 Track features input: TGMT	11
5.4.3 Track features input: MOD.....	11
5.5 Data localisation	11
5.5.1 Data localisation: TGMT	11
5.5.2 Data localisation: MOD.....	11
5.6 Measuring system/device	12
5.6.1 Measuring system/device: TGMT.....	12
5.6.2 Measuring system/device: MOD.....	12
5.7 Data processing	13
5.7.1 Data processing: TGMT	13
5.7.2 Data processing: MOD	13
5.8 Data output	13
5.8.1 Data output: TGMT.....	13
5.8.2 Data output: MOD	14
5.9 Data storage	14
5.9.1 Data storage: TGMT.....	14
5.9.2 Data storage: MOD.....	14
6 Testing of track geometry measuring system	14
6.1 Testing: TGMT	14
6.1.1 General.....	14
6.1.2 Calibration	15
6.1.3 Validation tests	15
6.1.4 Routine validation.....	17
6.2 Testing: MOD.....	17
6.2.1 Introduction	17
6.2.2 Calibration	18
6.2.3 Validation tests	18
6.2.4 Routine validation.....	18
Annex A (normative) Parameters measured by track geometry measuring trolleys (TGMTs) and manually operated devices (MODs)	19
A.1 Introduction	19
A.2 Track gauge.....	20

A.3	Longitudinal level	21
A.4	Cross level	22
A.5	Alignment	23
A.6	Twist.....	24
Annex B (informative)	Principles of measurement.....	25
B.1	General description.....	25
B.2	Longitudinal level and alignment (TGMT only)	25
B.2.1	Chord measuring system	25
B.2.2	Inertial measuring system	25
B.3	Track gauge	26
B.4	Cross level	26
B.5	Twist.....	26
Annex C (normative)	TGMT / Description of field tests: values to be respected	27
C.1	Repeatability – Statistical analysis of parameter data	27
C.2	Reproducibility – Statistical analysis of parameter data.....	27
Bibliography.....		29

Foreword

This document (EN 13848-4:2011) 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 June 2012, and conflicting national standards shall be withdrawn at the latest by June 2012.

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 European Standard is one of the series EN 13848 "*Railway applications – Track – Track geometry quality*" as listed below:

- *Part 1: Characterisation of track geometry;*
- *Part 2: Measuring systems – Track recording vehicles;*
- *Part 3: Measuring systems – Track construction and maintenance machines;*
- *Part 4: Measuring systems – Manual and lightweight devices;*
- *Part 5: Geometric quality levels – Plain line;*
- *Part 6: Characterisation of geometric quality.*

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1 Scope

This part of this European Standard specifies the minimum requirements that shall be met by measuring systems fitted on track geometry measuring trolleys and manually operated devices to give an evaluation of track geometry quality when measuring one or more of the parameters described in EN 13848-1:2003+A1:2008. It sets out the acceptable differences from EN 13848-1:2003+A1:2008 when using track geometry measuring trolleys and manually operated devices to measure track geometry.

It applies to all track geometry measuring systems fitted to track geometry measuring trolleys and manually operated devices after the date of implementation of this standard.

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 13848-1:2003+A1:2008, *Railway applications – Track – Track geometry quality – Part 1: Characterisation of track geometry*

EN 13848-2:2006, *Railway applications – Track – Track geometry quality – Part 2: Measuring systems – Track recording vehicles*

EN 13848-5:2008+A1:2010, *Railway applications – Track – Track geometry quality – Part 5: Geometric quality levels – Plain line*

3 Terms and definitions

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

3.1

track geometry measuring trolley (TGMT)

trolley designed for measuring one or more track geometry parameters, having the following characteristics:

- self-propelled, hauled or moved by human force;
- portability (capability to be placed readily on or off the track manually or by other means);
- capability of measuring from standstill to the maximum permissible speed of the trolley;
- having wheels which do not load the track as defined in Clause 5 of EN 13848-1:2003+A1:2008.

3.2

manually operated device (MOD)

hand tool designed for measuring track gauge and/or cross level at standstill

3.3

sensor

device which detects, measures and translates characteristics of track geometry into quantities that can be used for further data processing