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I.S. EN 13231-3:2012

Railway applications - Track - Acceptance of works - Part 3: Acceptance of reprofiling rails in track

I.S. EN 13231-3:2012

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Railway applications - Track - Acceptance of works - Part 3: Acceptance of reprofiling rails in track

Applications ferroviaires - Voie - Réception des travaux -
Partie 3: Critères de réception des travaux de reprofilage
des rails en voie

Bahnanwendungen - Oberbau - Abnahme von Arbeiten -
Teil 3: Abnahme von reprofilierten Schienen im Gleis

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Foreword

This document (EN 13231-3:2012) 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of an identical text or by endorsement, at the latest by July 2012, and conflicting national standards shall be withdrawn at the latest by July 2012.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 document supersedes EN 13231-3:2006.

The changes with respect to the previous document (EN 13231-3:2006) include:

- a) a reduced number of acceptance criteria for the longitudinal profile (only one instead of three) in line with current European practice;
- b) reference points for interpretation of transverse profiles corresponding with the gauge recording points;
- c) simplified methods to prove measurement systems (for reference and approved instruments as described in Annexes A and B);
- d) introduction of a procedure to routinely demonstrate acceptability of approached instruments in Annex D;
- e) integration of normative Annexes A, B, C and D.

This European Standard is one of the series EN 13231 "*Railway applications — Track — Acceptance of works*" as listed below:

— *Part 1: Works on ballasted track — Plain line, switches and crossings*

— *Part 3: Acceptance of reprofiling rails in track*

— *Part 4: Acceptance of reprofiling rails in switches and crossings*

NOTE Part 2 does not exist in this series.

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, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the technical requirements and the measurements to be made for the acceptance of work to reprofile longitudinally and/or transversely the heads of railway rails. For acceptance purposes, two classes of longitudinal profile and three classes of transverse profile tolerance are defined.

Annexes describe procedures to verify reference instruments to be used for these measurements as well as methods to approve non-reference instruments to be used for measurements.

This European Standard applies to reprofiled vignole railway rails 46 kg/m and above.

It does not apply for acoustic rail reprofiling.

A form of acceptance documentation that may be used is given in Annex E.

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 ISO 3274, *Geometrical product specifications (GPS) — Surface texture: Profile method — Nominal characteristics of contact (stylus) instruments (ISO 3274:1996)*

EN ISO 3611, *Geometrical product specifications (GPS) — Dimensional measuring equipment: Micrometers for external measurements — Design and metrological characteristics (ISO 3611:2010)*

EN ISO 4287, *Geometrical product specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters (ISO 4287:1997)*

EN ISO 4288, *Geometrical product specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture (ISO 4288:1996)*

EN ISO 10360-2, *Geometrical product specifications (GPS) — Acceptance and reverification tests for coordinate measuring machines (CMM) — Part 2: CMMs used for measuring linear dimensions (ISO 10360-2:2009)*

3 Terms and definitions

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

3.1

angle of inclination of rail

nominal angle at which rail is laid (see Figure 1 b)), e.g. 0° (vertical rails), 2,86° (1:20 inclination), 1,91° (1:30 inclination), 1,43° (1:40 inclination), etc., inclined towards the centre of the track

NOTE For rail which is laid in non-canted track, the angle of inclination of the rail is equal to the angle between the vertical and the centre-line of the inclined rail.

3.2

approved instrument

instrument for measurement of longitudinal or transverse profile the usage of which is justified by correlation of its performance with that of a reference instrument in accordance with the defined procedure

NOTE For procedure to demonstrate correlation, see Annex B.

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