



NSAI
Standards

Irish Standard
I.S. EN 17397-1:2020

Railway applications - Rail defects - Part 1: Rail defect management

I.S. EN 17397-1:2020

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National Foreword

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 17397-1

November 2020

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English Version

**Railway applications - Rail defects - Part 1: Rail defect
management**

Applications ferroviaires - Défaits de rails - Partie 1 :
Gestion des défauts de rails

Bahnanwendungen - Schienenfehler - Teil 1:
Handhabung von Schienenfehlern

This European Standard was approved by CEN on 28 September 2020.

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Contents

Page

European foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Abbreviations	7
5 Defect management system.....	7
5.1 General.....	7
5.2 Defect types.....	7
5.3 NDT inspection of rails.....	7
5.4 Management of NDT inspection results	8
6 Limits of rail condition.....	8
6.1 General.....	8
6.2 Definition of limits	8
6.3 Rail defect immediate action limits L_{IA}	10
7 Risk mitigation	10
Annex A (informative) Description of rail defects	11
A.1 Definition and description of rail defects.....	11
A.2 Characterization of rail defects.....	15
A.2.1 Transverse cracking.....	15
A.2.2 Horizontal cracking.....	19
A.2.3 Longitudinal vertical cracking	25
A.2.4 Squat	29
A.2.5 Head checks.....	33
A.2.6 Other rail head surface conditions	35
A.2.7 Corrosion.....	50
A.2.8 Wear.....	54
A.2.9 Other rail defects.....	59
Annex B (informative) Immediate action limits L_{IA}	67
Bibliography.....	69

European foreword

This document (EN 17397-1:2020) 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of an identical text or by endorsement, at the latest by May 2021, and conflicting national standards shall be withdrawn at the latest by May 2021.

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EN 17397-1:2020 (E)

1 Scope

This document specifies the defect management system the infrastructure manager uses to control the risk of severe accidents due to degradation of internal or surface defects on rails complying with EN 13674-1, EN 13674-2, EN 13674-4 and EN 15689:2009 (excluding grooved rails EN 14811 — which need alternative systems).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 16729-3:2018, *Railway applications - Infrastructure - Non-destructive testing on rails in track - Part 3: Requirements for identifying internal and surface rail defects*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1

plain rail

zone comprising all parts of the rail located away from the rail ends and the welding zones

3.2

rail end

part of the rail located within the length of the fishplates

3.3

welding zone

weld material itself plus 20 mm from each end of the weld collar (for aluminothermic welding and electric arc welding) or upset (flash-butt welding)

Note 1 to entry: Any defect occurring in this zone is classified as a welding defect.

3.4

defective rail

rail which, for reasons of integrity or profile (including wear), requires management (examples in Annex A)

3.5

damaged rail

rail which is neither cracked nor broken, but which has other defects

3.6

cracked area

part of the rail with a localized material discontinuity

3.7

broken rail

rail which has separated into two or more pieces (see Figure 1 and Figure 2) or any rail from which a piece of metal becomes detached from the rail head, with a gap of more than 50 mm in length and more than 10 mm in depth resulting in a running band less than 30 mm in width (see Figure 3)

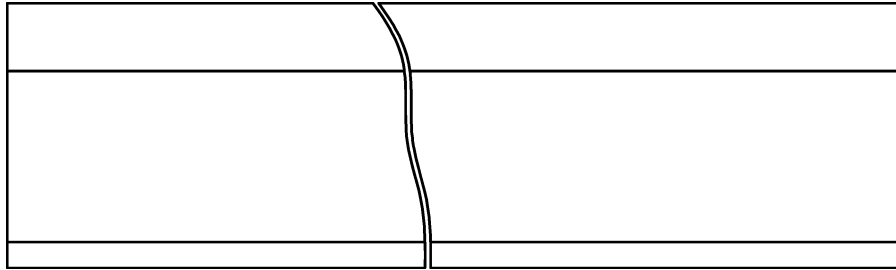
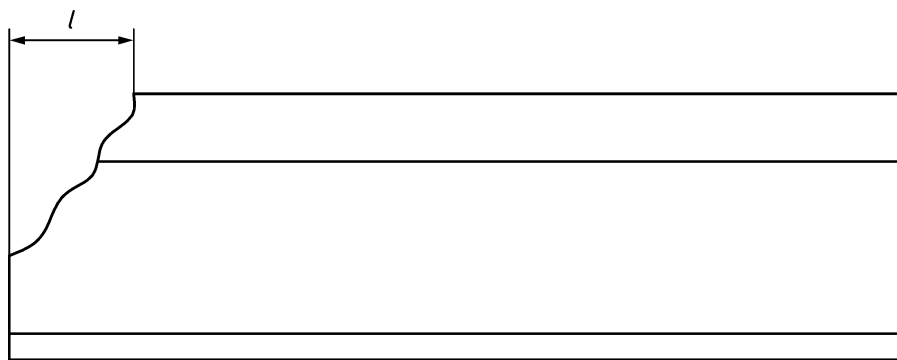


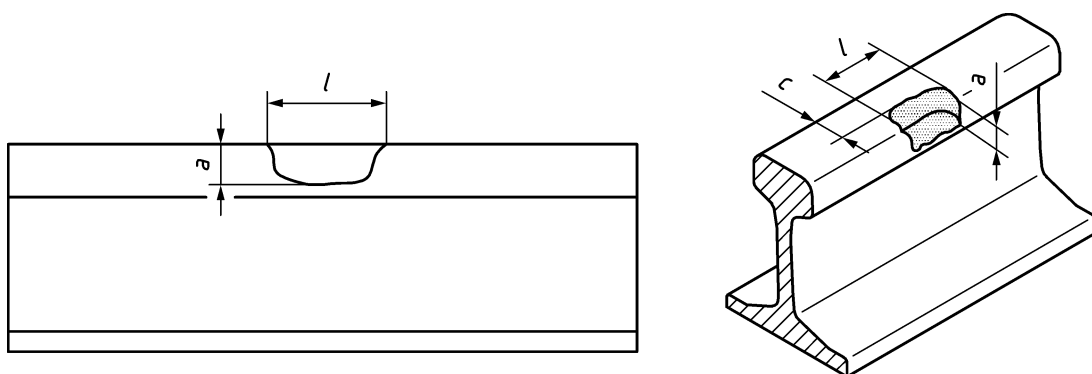
Figure 1 — Example of a broken rail separated in two pieces



Key

l horizontal length

Figure 2 — Example of a broken rail with a gap at the rail end



Key

a vertical depth

l horizontal length

c non-cracked area

Figure 3 — Example of a broken rail with a gap

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