
**Railway infrastructure — Rail
fastening systems —**

**Part 1:
Vocabulary**

Infrastructure ferroviaire — Systèmes de fixation du rail —

Partie 1: Vocabulaire

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 269, *Railway applications*, Subcommittee SC 1, *Infrastructure*.

A list of all parts in the ISO 22074 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Railway infrastructure — Rail fastening systems —

Part 1: Vocabulary

1 Scope

This document specifies the terms and definitions used in the ISO 22074 series of standards related to rail fastening systems.

NOTE In this document, there are some entries where more than one term is listed in the header (e.g. sleeper, tie, cross tie in 3.2.3). In such cases, the first term is the preferred term, generally used in the ISO 22074 series of standards. The other terms are also in common use in the railway industry and are considered to be synonymous (admitted terms).

2 Normative references

There are no normative references in this document.

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:

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <http://www.electropedia.org/>

3.1 Application of standards

3.1.1

rail fastening category

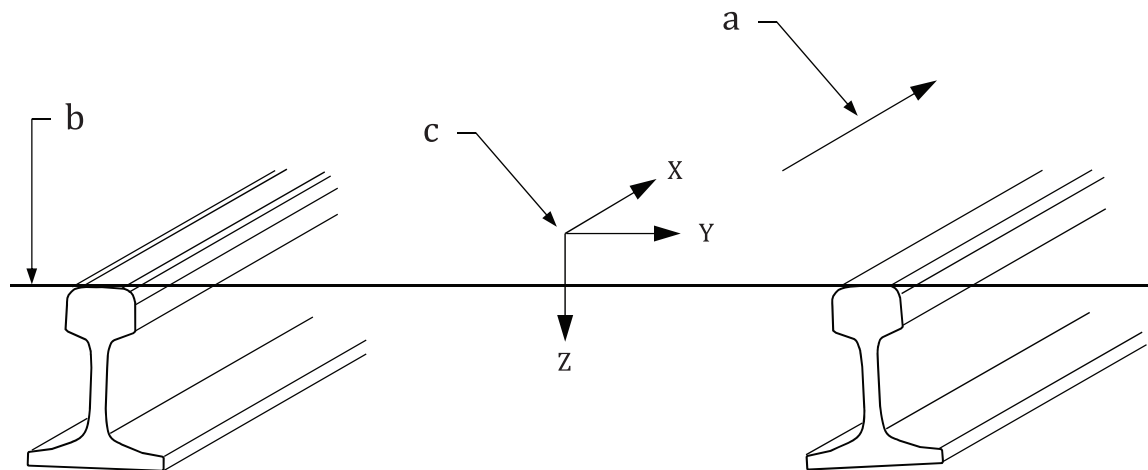
classification of rail fastening based on its ability to meet requirements for a particular combination of curve radius, axle load, rail profile, track gauge and support spacing

3.1.2

datum surface

surface used as a datum for determination of position and angles of loading applied in tests

Note 1 to entry: See footnote b in [Figure 1](#).



Key

- a direction of travel
- b datum surface defined by the intersection between the considered section and the running surface
- c co-ordinate system for the track, in which:
 - X is the longitudinal axis,
 - Y is the lateral axis,
 - Z is the vertical axis.

Figure 1 — Determination of datum surface

Note 2 to entry: For conventional concrete, wood and polymeric composite *sleepers* (3.2.3), this surface is parallel to the bottom surface of the sleeper. For practical purposes, in a test laboratory, the angle of loading may be measured relative to the bottom surface of such a sleeper.

3.2 Track system

ISO 22074-1:2020

3.2.1

ballasted track

railway track in which the *supporting structures* (3.2.5) are *sleepers* (3.2.3) embedded in ballast

3.2.2

ballastless track

DEPRECATED: slab track

railway track in which the *supporting structure* (3.2.5) has no ballast layer

Note 1 to entry: The term "slab track", used in earlier standards to describe concrete *ballastless track*, is ambiguous and is not used in this series of standards.

3.2.3

sleeper

tie
cross tie
beam, which can be composite in construction, and which supports *running rails* (3.2.6), and sometimes *guard rails* (3.2.8) and *check rails* (3.2.7), at right angles to its axis

Note 1 to entry: Normally, the beam supports two running rails to form one track.