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Technical Specifications - Permanent Way

Technical Specification for the supply of Sleeper Screws



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Foreword

An International Railway Solution (IRS) is a document drawn up by consensus and applied on a voluntary basis which aims to facilitate and harmonise railway operation.

IRSs are gradually replacing UIC leaflets.

Members of the International Union of Railways (UIC) participate in the creation of IRSs, of which they benefit in full. Furthermore, marketing to railway stakeholders contributes to the sharing and harmonisation of good practices, in accordance with UIC's primary goal.

While IRSs do not have the force of law, they are created and published in a professional manner and with technical approval on the basis of UIC procedures, and have full technical legitimacy in the railway sector.

The "General application" section constitutes the heart of the IRS and contains the working group's expertise applicable in the broadest manner. The addition of a "Specific application" aims to cover factors specific to a region, a type of service, etc.

Some provisions shall be implemented in all cases to ensure correct application and maintain the system's cohesiveness. Certain operational circumstances require that specific provisions be systematically applied by all users of the document.

For the purposes of understanding, the user acknowledges that the expression of:

- obligation indicates requirements to be respected in order to comply with the expertise expressed in the document (usually "shall");
- recommendation indicates options that are favourable but not essential (usually "should");
- permission indicates options that are recognised but without consequence (usually "may");
- capacity indicates possibilities from a technical standpoint and not permissions or probabilities (usually "can").

Obligation, recommendation and capacity can be expressed in the negative to indicate prohibiting, non-recommendation and incapacity.

If applicable, notably for the purposes of compliance with a UIC approval, passages that are recommended or mandatory for the cohesiveness of the system will be accompanied by the letters "R" and "MCS" respectively.

This IRS reflects the following UIC working group expertise:

Track Expert Group - Migration of UIC Leaflet 864-1, 864-2 and 864-3

It integrates in full or in part the following UIC leaflets:

UIC Leaflet 864-1

Executive summary

The International Union of Railways (UIC) develops and distributes International Railway Solutions (IRSs) in order to help railway stakeholders, achieve further harmonisation collaboration.

The content of this IRS is the revision of *UIC Leaflet 864-1*, with actualised references to UIC IRS and European Norms, for materials, testing and inspections of products.

It integrates in full or in part the following UIC leaflets:

- UIC Leaflet 864-1

It complements the following standards:

- none

Field of application

This IRS describes recommendations concerning the characteristics, quality of materials, manufacture and acceptance conditions for sleeper screws used in railway superstructure.

The general purpose of sleeper screws described in this IRS is generally to secure indirect fastening systems to wooden, polymeric or concrete sleepers and bearers in ballasted tracks and transoms for bridges.

Sleeper screws are also commonly used in fastening systems installed on structural elements (e.g. concrete slabs, blocks) for ballastless tracks.