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R RTE 22541

Continuously welded rails and fish-plated tracks and switches

Metre gauge

RTE – *Regelwerk Technik Eisenbahn*
(Railway engineering regulations)

R

RTE 22541

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This regulation is also published in English in addition to the usual German and French versions. The RTE program management would like to thank the industry association SWISSRAIL for the translation and review. It is not yet clear whether an English version will be published for the next edition of these rules.

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30/11/2005	1st edition
13/03/2024	2nd edition – Introduction of the table of limit radii – Elimination of the permissible temperature rise – Consideration of frame stiffness (rigidity) for determining the limit radii – Ballast bed cross-sections – Adaptation to the RTE structure

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Foreword

Regulation R RTE 22541 describes the layout of continuously welded rails (CWR) and fish-plated tracks and switches. Conditions are defined that must be observed for project planning, construction and maintenance.

The regulation is intended for planning specialists in the field of railway line design and railway track construction.

This regulation replaces the 2005 edition. In addition to a general adaptation to the current RTE basic structure, the latest findings from the behaviour of CWR track have been taken into account. As a basis for the revision of R RTE 22541, the similar regulation R RTE 22041, 2nd edition, for the standard gauge was used and adapted to include the metre-gauge-specific elements.

The previous edition of the RTE regulation already allowed for curve breathing in the metre gauge. However, it was assumed that this occurs evenly over the entire curve length. Considerable research by Bopp [Bopp, 2014] and Braess [Braess, 2018] in recent years has shown that this assumption is only correct for rigid (frame-stiff) track panels. By introducing a limit radius for the frame stiffness requirements, the present regulation ensures uniform curve breathing and at the same time shows how all radii can be welded continuously.

Zurich, 13/03/2024

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