

Technical Bulletin DVS 1614

Straightening in rail-vehicle construction

Technical Committee of the DVS

Working Group A 7 "Welding in rail-vehicle construction"

Reprinting and copying, even in the form of excerpts, only with the consent of the publisher

This publication has been drawn up by a group of experienced specialists working in an honorary capacity and its consideration is recommended. The user should always check to what extent the contents are applicable to his particular case and whether the version on hand is still valid. No liability can be accepted by the DVS – Deutscher Verband für Schweißen und verwandte Verfahren e.V., and those participating in the drawing up of the document

Content:

1.	Scope	3
2.	Definition of terms	3
2.1.	Mechanical straightening	3
2.2.	Thermal straightening	3
3.	Fundamental principles of straightening	3
3.1.	Mechanical straightening	3
3.2.	Thermal straightening	4
3.3.	Personnel for thermal straightening	6
4.	Use of thermal straightening	6
4.1.	Straightening with and without jigs	6
4.1.1.	Straightening without a jig (free straightening)	6
4.1.2.	Straightening with jigs	12
4.2.	Laser straightening	14
4.3.	Straightening of aluminium by welding	14
5.	Materials	17
5.1.	Steels	17
5.1.1.	Mechanical straightening	17
5.1.2.	Thermal straightening	18
5.2.	Aluminium alloys	19
5.2.1.	Mechanical straightening	19
5.2.2.	Thermal straightening	19
5.3.	Summary and straightening temperatures	20
6.	Tests and inspections	21
6.1.	Geometry inspection	21
6.2.	Temperature and material inspection	22
7.	Work instruction for straightening	22
8.	Straightening for repairs	23
9.	Structural definitions, no weld zones	23
10.	References	24
10.1.	Regulations	24
10.2.	Bibliography	24

Voransicht des Regelwerkes