

DIN EN 13146-9:2011-12 (E)

Railway applications - Track - Test methods for fastening systems - Part 9: Determination of stiffness (includes Amendment A1:2 011)

Contents		Page
Foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Symbols and abbreviated terms	6
5	Verification of calibration	8
6	Test procedures for pads	8
6.1	Static test procedure for pads	8
6.1.1	Principle	8
6.1.2	Apparatus	8
6.1.3	Procedure	9
6.1.4	Test report	10
6.2	Dynamic low frequency test procedure for pads	11
6.2.1	General	11
6.2.2	Principle	11
6.2.3	Apparatus	11
6.2.4	Procedure	12
6.2.5	Test report	12
6.3	Dynamic high frequency test procedure for pads	13
7	Test procedures for complete rail fastening assemblies	13
7.1	Static test procedure for fastening assemblies	13
7.1.1	Principle	13
7.1.2	Apparatus	13
7.1.3	Test specimens	14
7.1.4	Procedure	14
7.1.5	Test report	14
7.2	Dynamic low frequency test for fastening assemblies	15
7.2.1	General	15
7.2.2	Principle	15
7.2.3	Apparatus	15
7.2.4	Procedure	16
7.2.5	Test report	16
7.3	Dynamic high frequency test for assemblies	17
7.3.1	Principle	17
7.3.2	Apparatus	17
7.3.3	Test specimen	20
7.3.4	Test procedure	20
7.3.5	Test report	24
Annex A (informative)	Determination of the dynamic high frequency stiffness of pads	25
A.1	General	25

A.2	Principle	25
	Bibliography	26