DIN EN 14535-1:2011-07 (E)

Railway applications - Brake discs for railway rolling stock - Part 1: Brake discs pressed or shrunk onto the axle or drive shaft, dimensions and quality requirements (includes Amendment A1:2011)

Contents

Page

page Foreword 4

Introduction 5

1 Scope 6

2 Normative references 6

3 Terms and definitions 6

4 Symbols and units 8

5 Requirements 9
5.1 Purpose 9
5.2 Materials, design and manufacture 9
5.3 Dimensions 10
5.3.1 Brake disc 10
5.3.2 Hub bore 12
5.3.3 Hub oil injection arrangement 14
5.3.4 Access to the axle 14
5.3.5 Indication of disc wear limits 14
5.3.6 Finishing 15
5.3.7 Balance 15
5.3.8 Dimensional tolerances 16
5.4 Performance 16
5.4.1 Performance classification 16
5.4.2 Structural distortion or displacement 16
5.4.3 Thermal power dissipation 17
5.4.4 Ventilation losses 17
5.4.5 Noise generation 17
5.4.6 Frictional performance 17
5.4.7 Service life 17
5.5 Installation 17

6 Test methods 18
6.1 Type tests (Category A test) 18
6.1.1 General 18
6.1.2 Test certificate 18
6.2 Homologation tests 18
6.3 Routine tests 18
6.3.1 Verification 18
6.3.2 Specifications 18
6.3.3 Traceability 19
6.3.4 Tests and measurements 19
6.3.5 Records 19

7 Classification and designation 20
7.1 Classification 20
7.2 Designation 20

8 Marking and packaging 21
8.1 Marking 21
8.2 Packing and protection 21

Annex A (informative) Situation of temperature sensors 22

Annex B (informative) Access for non-destructive testing of axles 23

Annex ZA (informative) !!!!Relationship between this European Standard and the Essential Requirements of EU Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community (Recast)""""" 24

Bibliography 29