

BS EN 12561-8:2011

Incorporating corrigendum August 2011



BSI Standards Publication

Railway applications — Tank wagons

Part 8: Heating connections

bsi.

...making excellence a habit.™

National foreword

This British Standard is the UK implementation of EN 12561-8:2011. It supersedes BS EN 12561-8:2004 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee RAE/1/-/9, Railway Applications - Wagons (Tank/Freight).

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© BSI 2011

ISBN 978 0 580 76299 4

ICS 45.060.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 July 2011.

Amendments/corrigenda issued since publication

Date	Text affected
31 August 2011	Incorporation of CEN correction notice July 2011: modification of Figure 3

English Version

Railway applications - Tank wagons - Part 8: Heating connections

Applications ferroviaires - Wagons citernes - Partie 8 :
Raccordements de réchauffage

Bahnanwendungen - Kesselwagen - Teil 8: Heizanschlüsse

This European Standard was approved by CEN on 3 June 2011.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Requirements	4
5 Positioning of connections.....	4
6 Connection	5
6.1 Dimensions.....	5
6.2 Tightening device	6
6.3 Test pressure of connections.....	6
7 Materials	7
8 Marking	7
Bibliography	8

Figures

Figure 1 — Positioning of connections	5
Figure 2 — Dimensions of connections	6
Figure 3 — Example of tightening device	6

Foreword

This document (EN 12561-8:2011) has been prepared by Technical Committee CEN/TC 256 "Railway applications", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2011, and conflicting national standards shall be withdrawn at the latest by December 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12561-8:2004.

This European Standard Railway applications — Tank wagons consists of the following parts:

- *Part 1: Identification plates for tank wagons for the carriage of dangerous goods;*
- *Part 2: Bottom emptying devices for liquid products including vapour return;*
- *Part 3: Bottom filling and emptying devices for gases liquefied under pressure;*
- *Part 4: Devices for top filling and emptying of liquid products;*
- *Part 5: Devices for vapour return while filling or emptying of liquid products;*
- *Part 6: Manholes;*
- *Part 7: Platforms and ladders;*
- *Part 8: Heating connections.*

The changes made during this revision are editorial because of the change of the title of part 1 and the necessary updates of references.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies positioning of connections, connection dimensions and coupling tightening devices for connections of steam heating installations used on tank wagons.

This European Standard applies to new tank wagons built after the 1st January 2010.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 14564, *Tanks for transport of dangerous goods – Terminology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14564 and the following apply.

3.1

heating installation

device heating the tank contents and/or discharge equipment with steam

3.2

steam trap

self contained valve which automatically drains the condensate from a steam containing enclosure while remaining tight to live steam, or if necessary, allowing steam to flow at a controlled or adjusted rate

4 Requirements

The extremities of the heating installation shall be fitted as follows:

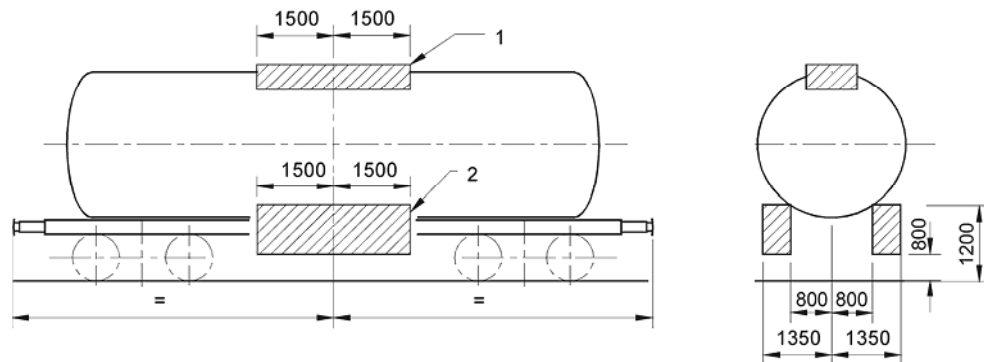
- each inlet shall be fitted with a valve PN 16, and a connection according to Clause 6;
- each outlet shall be fitted with a valve PN 16 or a steam trap.

In order to drain condensate the outlet shall be situated at the lowest point of the steam heating installation. This outlet shall not be obstructed when the outlet valve is open. It shall be directed to the ground in such a way as not to present a danger to personnel or damage on brake parts or to other wagon equipment.

5 Positioning of connections

Except by agreement between customer and manufacturer, the connections shall be positioned entirely within the areas shown in Figure 1.

Dimensions in millimetres



Key

- 1 Where tank wagons are fitted with top connections, they shall be positioned within this area
- 2 Where tank wagons are fitted with bottom connections, they shall be positioned on both sides within this area

Figure 1 — Positioning of connections

The steam connections shall not infringe the loading gauge.

Spaces for connections may need to be different for domestic traffic in Great Britain (see Technical Specification for Interoperability for Freight Wagons).

6 Connection

6.1 Dimensions

Except for other types of connections agreed between the customer and the manufacturer, the dimensions of the connection shall be as shown in Figure 2.

Dimensions in millimetres

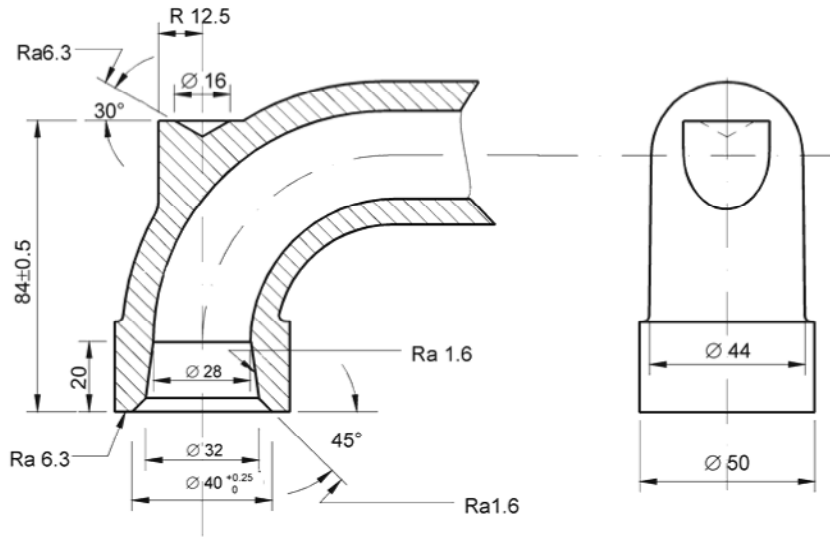


Figure 2 — Dimensions of connections

6.2 Tightening device

The connection to the steam supply pipe shall be made in a leak-tight manner. An example of a tightening device is shown in Figure 3.

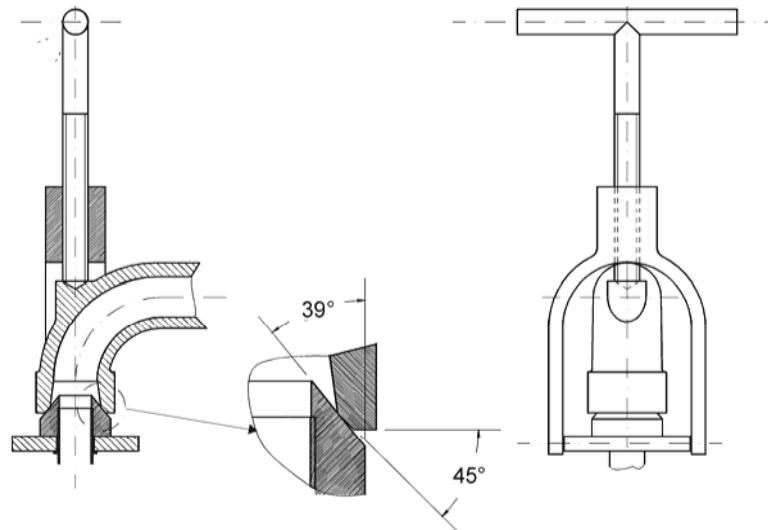


Figure 3 — Example of tightening device

6.3 Test pressure of connections

The test pressure of the connections shall be at least equal to the test pressure of the steam heating installation.

7 Materials

The materials of the fittings shall exhibit a suitable degree of safety in accordance with the maximum permissible working pressure and temperature of the heating installation. At these maximum working conditions, the materials shall be compatible with the steam where they come in contact with it.

8 Marking

The maximum allowable working pressure of the heating installation shall be clearly marked on the tank wagon close to the connections.

NOTE Regulation should require other marking in case of hot parts.

Where the heating device can also be used for heating tank equipment, a diagrammatic representation of the use of the different devices shall be fitted on the tank wagon close to the connections.

Bibliography

- [1] EN 12972, *Tanks for transport of dangerous goods — Testing, inspection and marking of metallic tanks*
- [2] RID, *Regulations concerning the International Carriage of Dangerous Goods by Rail* ¹⁾ implementing Commission Directives 2003/28/EC and 2003/29/EC
- [3] *TSI Rolling Stock — Freight Wagons*
- [4] UIC 503, *Continental wagons running in Great Britain (via the Channel Tunnel and on Network Rail Infrastructure) — General conditions (reference profile, axle-load, etc.) for the acceptance, in international traffic with Great-Britain, of 2-axle and bogie wagons registered with other UIC member Rus* ²⁾
- [5] UIC 573, *Technical conditions for the construction of tank wagons*

1) Commonly known as RID.

2) May be purchased from: Railway Technical Publications (ETF), 16 rue Jean Rey, F-75015 Paris.

British Standards Institution (BSI)

BSI is the national body responsible for preparing British Standards and other standards-related publications, information and services.

BSI is incorporated by Royal Charter. British Standards and other standardization products are published by BSI Standards Limited.

About us

We bring together business, industry, government, consumers, innovators and others to shape their combined experience and expertise into standards-based solutions.

The knowledge embodied in our standards has been carefully assembled in a dependable format and refined through our open consultation process. Organizations of all sizes and across all sectors choose standards to help them achieve their goals.

Information on standards

We can provide you with the knowledge that your organization needs to succeed. Find out more about British Standards by visiting our website at bsigroup.com/standards or contacting our Customer Services team or Knowledge Centre.

Buying standards

You can buy and download PDF versions of BSI publications, including British and adopted European and international standards, through our website at bsigroup.com/shop, where hard copies can also be purchased.

If you need international and foreign standards from other Standards Development Organizations, hard copies can be ordered from our Customer Services team.

Subscriptions

Our range of subscription services are designed to make using standards easier for you. For further information on our subscription products go to bsigroup.com/subscriptions.

With **British Standards Online (BSOL)** you'll have instant access to over 55,000 British and adopted European and international standards from your desktop. It's available 24/7 and is refreshed daily so you'll always be up to date.

You can keep in touch with standards developments and receive substantial discounts on the purchase price of standards, both in single copy and subscription format, by becoming a **BSI Subscribing Member**.

PLUS is an updating service exclusive to BSI Subscribing Members. You will automatically receive the latest hard copy of your standards when they're revised or replaced.

To find out more about becoming a BSI Subscribing Member and the benefits of membership, please visit bsigroup.com/shop.

With a **Multi-User Network Licence (MUNL)** you are able to host standards publications on your intranet. Licences can cover as few or as many users as you wish. With updates supplied as soon as they're available, you can be sure your documentation is current. For further information, email bsmusales@bsigroup.com.

BSI Group Headquarters

389 Chiswick High Road London W4 4AL UK

Revisions

Our British Standards and other publications are updated by amendment or revision.

We continually improve the quality of our products and services to benefit your business. If you find an inaccuracy or ambiguity within a British Standard or other BSI publication please inform the Knowledge Centre.

Copyright

All the data, software and documentation set out in all British Standards and other BSI publications are the property of and copyrighted by BSI, or some person or entity that owns copyright in the information used (such as the international standardization bodies) and has formally licensed such information to BSI for commercial publication and use. Except as permitted under the Copyright, Designs and Patents Act 1988 no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means – electronic, photocopying, recording or otherwise – without prior written permission from BSI. Details and advice can be obtained from the Copyright & Licensing Department.

Useful Contacts:

Customer Services

Tel: +44 845 086 9001

Email (orders): orders@bsigroup.com

Email (enquiries): cservices@bsigroup.com

Subscriptions

Tel: +44 845 086 9001

Email: subscriptions@bsigroup.com

Knowledge Centre

Tel: +44 20 8996 7004

Email: knowledgecentre@bsigroup.com

Copyright & Licensing

Tel: +44 20 8996 7070

Email: copyright@bsigroup.com



...making excellence a habit.™