# BS EN 12953-13:2012



**BSI Standards Publication** 

# Shell boilers

Part 13: Operating instructions



...making excellence a habit."

#### National foreword

This British Standard is the UK implementation of EN 12953-13:2012.

The UK participation in its preparation was entrusted to Technical Committee PVE/2, Water Tube And Shell Boilers.

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.

© The British Standards Institution 2012. Published by BSI Standards Limited 2012

ISBN 978 0 580 70581 6

ICS 23.020.01; 27.060.30

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 29 February 2012.

#### Amendments issued since publication

Date Text affected

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

# EN 12953-13

January 2012

ICS 27.060.30

**English Version** 

## Shell boilers - Part 13: Operating instructions

Chaudières à tubes de fumée - Partie 13: Instructions de service

Großwasserraumkessel - Teil 13: Betriebsanleitungen

This European Standard was approved by CEN on 9 December 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, Turkey and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2012 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 12953-13:2012: E

## Contents

Foreword		
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4 4.1	Content of operating instructions General	5
	Minimum of content of operating instructions	6
Annex	ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC	7
Bibliog	raphy	8

## Foreword

This document (EN 12953-13:2012) has been prepared by Technical Committee CEN/TC 269 "Shell and water-tube boilers", 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 July 2012, and conflicting national standards shall be withdrawn at the latest by July 2012.

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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

The European Standard EN 12953 concerning shell boilers consists of the following parts:

- Part 1: General
- Part 2: Materials for pressure parts of boilers and accessories
- Part 3: Design and calculation for pressure parts
- Part 4: Workmanship and construction of pressure parts of the boiler
- Part 5: Inspection during construction, documentation and marking of pressure parts of the boiler
- Part 6: Requirements for equipment for the boiler
- Part 7: Requirements for firing systems for liquid and gaseous fuels for the boilers
- Part 8: Requirements for safeguards against excessive pressure
- Part 9: Requirements for limiting devices of the boiler and accessories
- Part 10: Requirements for feedwater and boiler water quality
- Part 11: Acceptance tests
- Part 12: Requirements for grate firing systems for solid fuels for the boiler
- Part 13: Operating instructions

CR 12953 Part 14: Guideline for involvement of an inspection body independent of the manufacturer

Although these parts may be obtained separately, it should be recognized that the parts are interdependent. As such, the design and manufacture of shell boilers requires the application of more than one part in order for the requirements of the European Standard to be satisfactorily fulfilled.

For any questions arising when using these standards the Boiler Helpdesk of CEN/TC 269 may be contacted:

#### http://www.boiler-helpdesk.din.de

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, Turkey and the United Kingdom.

### 1 Scope

This European Standard identifies the requirements for the manufacturer to provide operating instructions for pressure equipment supplied in accordance with EN 12953-1 when placed on the market.

NOTE Where the equipment or assembly will reach the final user in a Member State which requires translation of operating instructions, manufacturers should be aware of this requirement.

### 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 12953-1:2012, Shell boilers - Part 1: General

EN 12953-6:2011, Shell boilers — Part 6: Requirements for equipment for the boiler

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12953-1:2012 and the following apply.

#### 3.1

#### Piping and Instrument Diagram (P & ID)

drawing including pressure equipments, piping and instrumentation to indicate fluids flows and control or safety devices

#### 3.2

#### operating instructions

written procedure provided by the manufacturer which include all information regarding installation, operation and maintenance of the equipment within the manufacturer's scope of supply including:

- erection including assembling of different pieces of pressure equipment;
- first startup procedures and measures;
- normal operation procedures and surveillance;
- maintenance including scheduled checks by the user
- residual hazards

NOTE See Clause 4.

#### 4 Content of operating instructions

#### 4.1 General

The manufacturer shall provide the operating instructions for all equipment within the scope of supply.

NOTE The end user should produce his own operating and maintenance procedures that implement the manufacturer's operating instructions to ensure that the boiler is operated properly and safely.

#### 4.2 Minimum of content of operating instructions

The minimum content of operating instructions shall include the following:

- specification used for design as specified in EN 12953-1:2012, Annex A;
- specifications for safety accessories (e.g. set values) and pressure accessories;
- requirements for heat supply equipment, and if necessary, specific requirements for heat supply with slow acting combustion (e.g. combustion of wood or other solid fuels) according to EN 12953-6:2011;
- marking;
- technical documents, drawings and diagrams where necessary for a full understanding of these instructions;
- handling, storage and transportation requirements;
- installation and assembly instructions;
- putting into operation (first start) and commissioning;
- start-up and shut down procedures (normal and emergency);
- requirements under foreseen operating conditions;
- schedule of maintenance and inspection;
- information on how to deal with known or anticipated fault conditions (frequently asked questions);
- requirements for supervision during boiler operation by the boiler attendant: frequency, methodology and acceptance criteria for periodic tests of safety devices;
- any residual hazard from the hazard analysis (e.g. danger from foreseeable misuse).
- NOTE The hazard analysis itself is not part of the operating instructions.

# Annex ZA

## (informative)

## Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission to provide a means of conforming to Essential Requirements of the New Approach Directive 97/23/EC of the European Parliament and of the Council of 29 May 1997 on the approximation of the laws of the Member States concerning pressure equipment.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

#### Table ZA.1 — Correspondence between this European Standard and Directive for Pressure Equipment 97/23/EC

Clause(s)/subclause(s) of this EN 12953-13	Essential Requirements (ERs) of Directive for Pressure Equipment 97/23/EC Annex I	Qualifying remarks/notes
4	1.2 – 3 <sup>rd</sup> indent 3.4 a) 3.4 b) 3.4 c)	Principles to ensure the safety Basic requirements of the hazard analysis Operating instructions

**WARNING** — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

# Bibliography

- [1] Directive 97/23/EC of the European Parliament and of the Council of 29 May 1997 on the approximation of the laws of the Member States concerning pressure equipment; OJEC, L181
- [2] CEN/TS 764-6:2004, Pressure equipment Part 6: Structure and content of operating instructions

This page deliberately left blank

# 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."