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Shell Boilers - Part 6: Requirements for equipment for the boiler

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

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This European Standard was approved by CEN on 20 October 2024.

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

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European foreword

This document (EN 12953-6:2024) 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of an identical text or by endorsement, at the latest by June 2025, and conflicting national standards shall be withdrawn at the latest by June 2025.

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

This document supersedes EN 12953-6:2011.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

Annex H provides details of significant technical changes between this document and the previous edition.

The series 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 boiler
- Part 8: Requirements for safeguards against excessive pressure
- Part 9: Requirements for limiting devices of the boiler and accessories
- Part 10: Requirements for boiler feed water and boiler water quality
- Part 11: Acceptance tests
- Part 12: Requirements for firing systems for solid fuels for the boiler
- Part 13: Operating instructions

Although these parts can 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 standard to be satisfactorily fulfilled.

NOTE A "Boiler Helpdesk" has been established in CEN/TC 269 which can be contacted for any questions regarding the application of the European Standards series EN 12952 and EN 12953 see the following website: http://www.boiler-helpdesk.din.de.

Any feedback and questions on this document should be directed to the users'national standards body. A complete listing of these bodies can be found on the CENwebsite.

According to the CEN-CENELEC Internal Regulations, the national standardsorganisations of the following countries are bound to implement this EuropeanStandard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark,Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia,Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic ofNorth Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland,Türkiye and the United Kingdom.

1 Scope

This document specifies the minimum requirements for safety related equipment for shell boilers (generator and/or assemblies) as specified in EN 12953-1:2012, to ensure the boiler operates within the allowable limits (pressure, temperature, etc.) and if the limits are exceeded the energy supply is automatically interrupted and locked out, irrespective of the degree of intervention.

NOTE 1 For this document, the term "boiler" is applicable for generator and/or assemblies.

NOTE 2 The maximum time of operation without manual (human) intervention can be specified for each boiler system.

NOTE 3 Annex C gives recommendations of operation and testing of the boiler system with a maximum time of operation without manual (human) intervention of 24 h and 72 h.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 ISO 5167-1:2022, Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 1: General principles and requirements (ISO 5167-1:2022)

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

EN 12953-2:2012, Shell boilers - Part 2: Materials for pressure parts of boilers and accessories

EN 12953-3:2016, Shell boilers - Part 3: Design and calculation for pressure parts

EN 12953-7:2002, Shell boilers - Part 7: Requirements for firing systems for liquid and gaseous fuels for the boilers

EN 12953-8:2001, Shell boilers - Part 8: Requirements for safeguards against excessive pressure

EN 12953-9:2024, Shell boilers - Part 9: Requirements for limiting devices of the boiler and accessories

EN 12953-10:2003, Shell boilers - Part 10: Requirements for feedwater and boiler water quality

EN 12953-12:2003, Shell boilers - Part 12: Requirements for grate firing systems for solid fuels for the boiler

EN 12953-13:2012, Shell boilers - Part 13: Operating instructions

EN 14597:2012, Temperature control devices and temperature limiters for heat generating systems

EN 50156-1:2015, Electrical equipment for furnaces and ancillary equipment - Part 1: Requirements for application design and installation

EN 60529:1991, Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)

EN 60730-1:2016, Automatic electrical controls - Part 1: General requirements (IEC 60730-1:2013)

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¹ Document impacted by A1:2000, A2:2013 and AC:2016.

EN 61140:2016, Protection against electric shock - Common aspects for installation and equipment (IEC 61140:2016)

EN 61558-2-6:2009, Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers (IEC 61558-2-6:2009)

EN 61558-2-16:2009, Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2-16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units (IEC 61558-2-16:2009)

ISO 2186:2007, Fluid flow in closed conduits — Connections for pressure signal transmissions between primary and secondary elements

koniec náhľadu – text ďalej pokračuje v platenej verzii STN