Veetorudega katlad ja abipaigaldised. Osa 6: Inspekteerimine katla survedetailide valmistamise, dokumenteerimise ja märgistamise ajal

Water-tube boilers and auxiliary installations - Part 6: Inspection during construction; documentation and marking of pressure parts of the boiler

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12952-6:2011 sisaldab Euroopa standardi EN 12952-6:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 12952-6:2011 consists of the English text of the European standard EN 12952-6:2011.
Standard on kinnitatud Eesti Standardikeskuse 31.08.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.08.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 10.08.2011.	Date of Availability of the European standard text 10.08.2011.
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ICS 27.040

Inglisekeelsed võtmesõnad: boilers, heat exchangers, pressure, pumps, safety, safety engineering, safety requirements, sample surveys, specification (approval), specifications, steam boilers, steam generators, surveillance (approval), temperature measurement, testing, valves, water preheaters,

EUROPEAN STANDARD

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English Version

Water-tube boilers and auxiliary installations - Part 6: Inspection during construction; documentation and marking of pressure parts of the boiler

Chaudières à tubes d'eau et installations auxiliaires - Partie 6: Contrôles en cours de construction, documentation et marquage des parties sous pression de la chaudière

Wasserrohrkessel und Anlagenkomponenten - Teil 6: Prüfung während der Fertigung, Dokumentation und Kennzeichnung für drucktragende Kesselteile

This European Standard was approved by CEN on 25 June 2011.

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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.

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

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Foreword

This document (EN 12952-6:2011) 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 February 2012, and conflicting national standards shall be withdrawn at the latest by February 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 supersedes EN 12952-6:2002.

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 97/23/EC, see informative Annex ZA, which is an integral part of this document.

Annex B provides details of significant technical changes between this European Standard and the previous edition.

The European Standard series EN 12952 concerning water-tube boilers and auxiliary installations 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: In-service boiler life expectancy calculations;*

— *Part 5: Workmanship and construction of pressure parts of the boiler;*

— *Part 6: Inspection during construction, documentation and marking of pressure parts of the boiler;*

— *Part 7: Requirements for equipment for the boiler;*

— *Part 8: Requirements for firing systems for liquid and gaseous fuels for the boiler;*

— *Part 9: Requirements for firing systems for pulverized solid fuels for the boiler;*

— *Part 10: Requirements for safeguards against excessive pressure;*

— *Part 11: Requirements for limiting devices of the boiler and accessories;*

— *Part 12: Requirements for boiler feedwater and boiler water quality;*

— *Part 13: Requirements for flue gas cleaning systems;*

— Part 14: *Requirements for flue gas DENOX-systems using liquefied pressurized ammonia and ammonia water solution;*

— Part 15: *Acceptance tests;*

— Part 16: *Requirements for grate and fluidized-bed firing systems for solid fuels for the boiler;*

— CR 12952 Part 17: *Guideline for the involvement of an inspection body independent of the manufacturer.*

NOTE 1 A Part 18 on operating instructions is currently in preparation.

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

NOTE 2 Part 4 and Part 15 are not applicable during the design, construction and installation stages.

NOTE 3 A "Boiler Helpdesk" has been established in CEN/TC 269 which may be contacted for any questions regarding the application of European Standards series EN 12952 and EN 12953, see the following website: 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 and the United Kingdom.

1 Scope

This European Standard specifies requirements for the inspection during construction, documentation and marking of water-tube boilers as defined in EN 12952-1.

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 287-1:2004, *Qualification test of welders — Fusion welding — Part 1: Steels*

EN 473:2008, *Non-destructive testing — Qualification and certification of NDT personnel — General principles*

EN 571-1, *Non-destructive testing — Penetrant testing — Part 1: General principles*

EN 1321, *Destructive tests on welds in metallic materials — Macroscopic and microscopic examination of welds*

EN 1418:1997, *Welding personnel — Approval testing of welding operators for fusion welding and resistance weld setters for fully mechanized and automatic welding of metallic materials*

EN 1435, *Non-destructive testing of welds — Radiographic testing of welded joints*

EN 12952-1:2001, *Water-tube boilers and auxiliary installations — Part 1: General*

EN 12952-2, *Water-tube boilers and auxiliary installations — Part 2: Materials for pressure parts of boilers and accessories*

EN 12952-3:2011, *Water-tube boilers and auxiliary installations — Part 3: Design and calculation for pressure parts*

EN 12952-5:2011, *Water-tube boilers and auxiliary installations — Part 5: Workmanship and construction of pressure parts of the boiler*

EN ISO 148-1:2010, *Metallic materials — Charpy pendulum impact test — Part 1: Test method (ISO 148-1:2009)*

EN ISO 5817, *Welding — Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) — Quality levels for imperfections (ISO 5817:2003, corrected version:2005, including Technical Corrigendum 1:2006)*

EN ISO 6520-1, *Welding and allied processes — Classification of geometric imperfections in metallic materials — Part 1: Fusion welding (ISO 6520-1:2007)*

EN ISO 11666, *Non-destructive testing of welds — Ultrasonic testing — Acceptance levels (ISO 11666:2010)*

EN ISO 15613:2004, *Specification and qualification of welding procedure for metallic materials — Qualification based on pre-production welding test (ISO 15613:2004)*

EN ISO 15614-1:2004, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys (ISO 15614-1:2004)*

EN ISO 17637, *Non-destructive testing of welds - Visual testing of fusion-welded joints (ISO 17637:2003)*

EN ISO 17638, *Non-destructive testing of welds — Magnetic particle testing (ISO 17638:2003)*

EN ISO 17640, *Non-destructive testing of welds — Ultrasonic testing — Techniques, testing levels, and assessment (ISO 17640:2010)*

EN ISO 23277, *Non-destructive testing of welds - Penetrant testing of welds - Acceptance levels (ISO 23277:2006)*

EN ISO 23278, *Non-destructive testing of welds — Magnetic particle testing of welds — Acceptance levels (ISO 23278:2006)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12952-1:2001 and the following apply.

3.1
inspection
conformity evaluation by observation and judgement accompanied as appropriate by measurement, testing or gauging

[EN ISO 9000:2005]

4 General organisation

4.1 General

The manufacturer shall be responsible for ensuring the boiler conforms to the requirements of this European Standard. Conformance shall be confirmed by completing a series of inspection activities as detailed in Table 4.5-1.

Except where explicitly stated otherwise in this European Standard, inspection activities applicable to a manufacturer's works shall also be applicable to operations carried out on a construction site.

4.2 Conformity assessment

Guidance in the use of the conformity assessment procedures is given in EN 12952-1:2001, Annex A.

4.3 Competency of the manufacturer

If an assessment of the competency of the manufacturer is required, guidance is given in EN 12952-5:2011, Annex F.

4.4 Calibration of equipment

The manufacturer shall establish procedures to ensure that tools, gauges, instruments and other measuring and testing devices used in the manufacture and inspection activities affecting boiler product quality, are properly controlled, calibrated and adjusted at specific intervals, to maintain accuracy within defined limits.

NOTE A system for calibration, e.g. in compliance with the EN ISO 9000 series, is be deemed to meet these requirements.