SLOVENSKI STANDARD
SIST EN 764-5:2015

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Tlačna oprema - 5. del: Dokumentacija o kontroli kovinskih materialov in skladnost s specifikacijo materiala

Pressure equipment - Part 5: Inspection documentation of metallic materials and compliance with the material specification

Druckgeräte - Teil 5: Prüfbescheinigungen für metallische Werkstoffe und Übereinstimmung mit der Werkstoffspezifikation

Equipements sous pression - Partie 5 : Documents de contrôle de matériaux métalliques et conformité avec la spécification de matériau

Ta slovenski standard je istoveten z: **EN 764-5:2014**

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23.020.30	Tlačne posode, plinske jeklenke	Pressure vessels, gas cylinders

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Pressure equipment - Part 5: Inspection documentation of metallic materials and compliance with the material specification

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This European Standard was approved by CEN on 8 November 2014.

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CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, 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

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Contents

Page

Foreword

This document (EN 764-5:2014) has been prepared by Technical Committee CEN/TC 54 “Unfired pressure vessels”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by June 2015 and conflicting national standards shall be withdrawn at the latest by June 2015.

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 764-5:2002.

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.

For relationship with EU Directive 97/23/EC (PED), see informative Annex ZA, which is an integral part of this document.

Regarding the most significant technical changes that have been implemented in this new edition of EN 764-5, see Annex B.

This European Standard, *Pressure equipment*, consists of the following parts:

— *Part 1: Terminology - Pressure, temperature, volume, nominal size*;

— *Part 2: Quantities, symbols and units*;

— *Part 3: Definition of parties involved*;

— *Part 4: Establishment of technical delivery conditions for metallic materials*;

— *Part 5: Inspection documentation of metallic materials and compliance with the material specification* (the present document);

— *Part 6: Structure and content of operating instructions* [Technical Report CEN/TR 764-6];

— *Part 7: Safety systems for unfired pressure equipment;*

— *Part 8: Proof test* [Technical Specification prCEN/TS 764-8, currently under development].

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, Former Yugoslav Republic of Macedonia, 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 specifies the provisions for inspection documentation of metallic materials, intended to be used under the regime of the PED, to comply with the Essential Safety Requirements 4.2 (b) and 4.3 of Annex I and to comply with the required material specification.

A simplified diagram of the routes for inspection documentation including compliance with the material specification is shown in Figure 1.

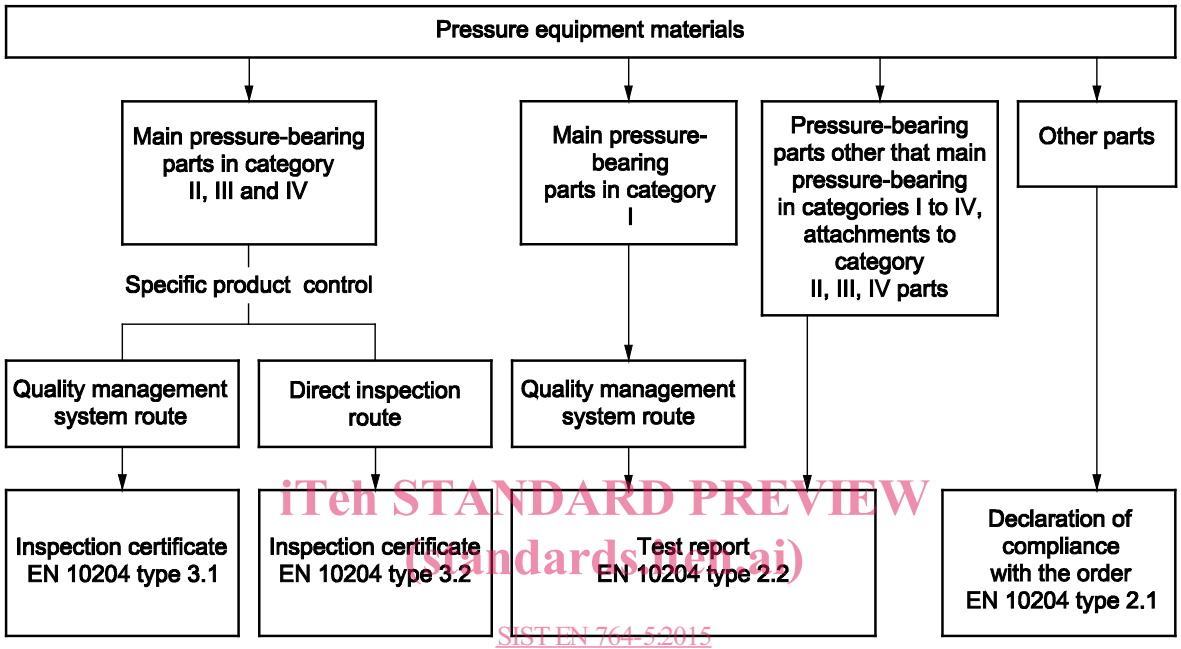

Figure 1 — Types of inspection documents required (minimum requirement)

2 Normative references

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

EN 764-4:2014, *Pressure equipment — Part 4: Establishment of technical delivery conditions for metallic materials*

EN 10204, *Metallic products — Types of inspection documents*

3 Requirements with respect to classification into pressure equipment categories

3.1 General

For material intended for use as pressure-bearing parts of pressure equipment of all categories and for attachments (e.g. support feet, lifting lugs, baffles, pipe supports, stiffening rings) welded directly to pressure-bearing parts of pressure equipment of all categories, the pressure equipment manufacturer shall ensure compliance of these materials by obtaining from the material manufacturer a declaration of compliance, which is traceable to the material, as specified in 3.2 to 3.5.

The issuing of any one of the inspection documents referred to in 3.2 to 3.5 is a declaration from the material manufacturer that the delivered products are in compliance with the requirements of the specification and the order (see EN 10204).

3.2 Material for main pressure-bearing parts of pressure equipment in category II, III and IV

For material intended for use as main pressure bearing parts of pressure equipment classified in categories II, III and IV, a specific inspection and testing route according to Clause 4 or Clause 5 shall be followed. This shall be either:

— by a material manufacturers Quality management system route (production under Quality management system coverage) according to Clause 4; or

— by direct inspection route (production without Quality management system coverage) according to Clause 5.

3.3 Material for main pressure-bearing parts of pressure equipment in category I

For material intended for use as main pressure-bearing parts of pressure equipment classified in category I, at least a test report, EN 10204 — "type 2.2", shall be obtained from the material manufacturer.

3.4 Material for pressure-bearing parts not covered by 3.2 or 3.3 and for attachments to pressure equipment in category II, III and IV

Pressure-bearing parts other than main pressure-bearing parts in categories I to IV and for attachments welded directly to pressure-bearing parts of pressure equipment classified in categories II, III and IV at least a test report, EN 10204 — "type 2.2" shall be obtained from the material manufacturer.

3.5 Other material

For materials for other parts not covered by 3.2 to 3.4 at least a declaration of compliance with the order, EN 10204 — "type 2.1" shall be obtained from the material manufacturer.

3.6 Welding consumables

For welding consumables for all categories of pressure equipment at least a test report EN 10204 — "type 2.2" shall be obtained from the welding consumable manufacturer.

3.7 Use of higher document levels

An inspection document of a higher level is always acceptable.

4 Material manufacturers Quality management system route

4.1 General

The pressure equipment manufacturer shall ensure himself that the material manufacturer has a certified Quality management system for manufacture, inspection and testing in accordance with 4.2 and obtain inspection documents in accordance with 4.3.3.

4.2 Quality management system

4.2.1 Assessment of the Quality management system

The material manufacturer shall have undergone a material related assessment of his Quality management system by a competent body of his choice. The competent body shall be established as a legal entity within the European Union (see also the PED Guideline 7/2) and which has been subject to appropriate accreditation. The accreditation body shall be authorized to grant accreditation by a EU Member State.

The Quality management system and its assessment shall fulfil the following requirements:

a) The competent body shall, when assessing the Quality management system, evaluate the capability of the material manufacturer to produce materials covered by the Quality management system certificate. This implies that for each production site, production process, grade, dimensional range, heat treatment condition etc., it shall be verified by production-data that the manufacturer, with statistical confidence, meets the minimum requirements of the specifications covered by the scope of the Quality management system certificate;

b) At least one member of the auditing team of the competent body responsible for assessment who has experience of assessing the material manufacturing and the material groups concerned shall take part in the certification procedure;

c) The assessment procedure shall include a visit to the material manufacturers premises;

d) The assessment shall include a review of:

   1) the type of manufacturing processes applied for the manufacture of the products covered by the scope of the intended certification;

   2) the type of equipment utilized;

   3) the essential parameters to be controlled during production in order to consistently achieve the required quality;

   4) the function of the persons responsible for the Quality management system, the manufacture and the inspection and testing;

e) The competent body shall evaluate by interviews or by the examination of documents:

   1) that the manufacturing equipment and the equipment controlling the essential parameters are available. They shall be capable of permitting the consistent delivery of products in the required quality;

   2) that competent personnel are available for operating and maintaining the equipment and supervising the manufacturing and inspection and testing activities;

f) Where valid results of preceding reviews of the Quality management system are available, these reviews shall not be repeated.

4.2.2 Content of the Certificate

Following positive assessment the competent body shall issue a document stating the scope of approval relating to material for pressure purposes including:

— product form;

— their dimensional range;

— their relevant production processes;

— date of issue and validity.

4.2.3 Reassessment and periodic audits

The competent body shall carry out periodic audits to make sure that the material manufacturer maintains and applies the Quality management system. The frequency of periodic audits shall be such that a full reassessment is carried out every three years, with at least one visit per year.

4.2.4 Assessment reports

The result of the assessment and periodic audits of the Quality management system shall be summarized in an assessment report, which shall be retained by the material manufacturer for a period of 10 years.

4.3 Material testing and inspection documents

4.3.1 First production of a material covered by harmonized standard or EAM

Where a material manufacturer starts the first production of a material covered by harmonized standard or EAM Annex A shall be applied.

Where a material manufacturer starts production of another material, EN 764-4 shall be applied.

4.3.2 Ordering of material

When ordering the material, the pressure equipment manufacturer shall specify:

a) the technical delivery conditions; and

b) any additional requirements, where applicable;

c) an inspection document in accordance with 4.3.3.

4.3.3 Inspection documents

The material manufacturer shall issue inspection documents to EN 10204, “type 3.1” traceable to the product, to ensure compliance with the applicable material specification and order requirements.

5 Direct inspection route

5.1 First production

Where a material manufacturer starts production of a material covered by harmonized standard or EAM, Annex A shall be applied. Where a material manufacturer starts production of other material EN 764-4 shall be applied.

5.2 Inspectors

If the pressure equipment manufacturer chooses not to carry out direct inspections himself he shall appoint:

— a body which has been subject to appropriate accreditation. The accreditation body shall be authorized to grant accreditation by a EU Member State; or

— a notified body as required by Article 12 of the PED; or

— a user inspectorate, where applicable.

NOTE A list of notified bodies (NANDO-List) can be found on the internet [3].