INTERNATIONAL STANDARD ISO 2604/II

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Steel products for pressure purposes — Quality requirements — Part II : Wrought seamless tubes

Produits en acier pour appareils à pression — Spécifications de qualité — Partie II : Tubes laminés sans soudure

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 2604/II (originally ISO/DIS 2605) was drawn up by Technical Committee ISO/TC 17, *Steel*, and circulated to the Member Bodies in October 1971.

It has been approved by the Member Bodies of the following countries :

Australia	India	South Africa, Rep. of
Austria	Ireland	Spain
Belgium	Italy	Switzerland
Czechoslovakia	Japan	Thailand
Denmark	Korea, Rep. of	Turkey
Egypt, Arab Rep. of	Netherlands	United Kingdom
Finland	New Zealand	U.S.S.R.
Germany	Portugal	
Hungary	Romania	

The Member Bodies of the following countries expressed disapproval of the document on technical grounds :

France
Norway
Sweden
U.S.A.

Printed in Switzerland

Steel products for pressure purposes — Quality requirements — Part II : Wrought seamless tubes

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the quality requirements for plain end wrought seamless tubes for pressure purposes manufactured from the steel types listed in table 3.

NOTE — The word "tube" is synonymous with "pipe".

This International Standard does not cover :

a) casing, tubing, drill pipe and linepipe for use by the oil and natural gas industries, and

b) tubes for the transport of gas, water and sewage.

2 REFERENCES

ISO/R 85, *Bend test for steel.*

ISO 148, *Steel — Charpy impact test (V-notch).* [1]

ISO/R 165, *Flanging test on steel tubes.*

ISO/R 166, *Drift expanding test on steel tubes.*

ISO/R 202, *Flattening test on steel tubes.*

ISO/R 205, *Determination of proof stress and proving test for steel at elevated temperatures.*

ISO 375, *Steel — Tensile testing of tubes.*

ISO/R 377, *Selection and preparation of samples and test pieces for wrought steel.*

ISO/R 404, *General technical delivery requirements for steel.*

ISO/R 643, *Micrographic determination of the austenitic grain size of steels.*

ISO/R 783, *Mechanical testing of steel at elevated temperatures — Determination of lower yield stress and proof stress and proving test.*

ISO 2566/I, *Steel — Conversion of elongation values — Part I : Carbon and low alloy steels.*

ISO 2605/I, *Steel products for pressure purposes — Derivation and verification of elevated temperature properties — Part I : Yield or proof stress of carbon and low alloy steel products.* [2]

ISO 2605/II, *Steel products for pressure purposes — Derivation and verification of elevated temperature properties — Part II : Proof stress of austenitic steel products.* [2]

ISO 2694, *Pressure vessels.* [2]

ISO/DATA No. 1, *Summary of average stress rupture properties for wrought boiler and pressure vessel steels for times of 10 000 hours to 250 000 hours and master curves.*

3 GENERAL REQUIREMENTS

3.1 Information to be supplied by the purchaser

3.1.1 The purchaser shall state on his enquiry and order the requirements given below :

a) the tube dimensions and tolerances (see 3.8);

b) the steel type (see table 3);

c) the test category (see 3.11);

d) the inspection procedures and type of documents (see 3.9, 3.15, 4.2 and 5.2).

3.1.2 Certain alternatives are permitted by this International Standard and the purchaser may also state on his enquiry and order his requirements as follows, but if no such statement is made, supply will be at the option of the manufacturer :

e) the deoxidation practice (see 3.2.3);

f) heat-treatment condition of supply (see 3.4);

g) if a product (check) analysis is required (see 3.5.2);

h) if additional mechanical tests are required (see 3.6.1.2);

i) any special requirements for freedom from defects (see 3.7.2);

j) any special straightness requirements (see 3.7.4);

1) At present at the stage of draft (revision of ISO/R 148).

2) At present at the stage of draft.