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Petroleum and natural gas industries — Steel pipe for pipeline transportation systems

Industries du pétrole et du gaz naturel — Tubes en acier pour les systèmes de transport par conduites

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 2, *Pipeline transportation systems*.

This fourth edition cancels and replaces the third edition (ISO 3183:2012), which has been technically revised. It also incorporates the Amendment (ISO 3183:2012/Amd.1:2017).

This document supplements API Spec 5L, 46th edition (2018).

The technical requirements of this document and API Spec 5L used to be identical (except for the inclusion of Annex M in the ISO publication). In the meantime API Spec 5L has been technically revised as API Spec 5L, 46th edition (2018). The purpose of this document is to bring it up to date, by referencing the current edition of API Spec 5L and including supplementary content.

The main changes compared to the previous edition are as follows:

— Technical changes now incorporated by normative reference to API Spec 5L have been made in the API Spec 5L subclauses addressing

  — weld seams (API Spec 5L, 8.8.2 clarifies heat treatment),

  — tolerances for straightness (API Spec 5L, 9.11.3.4b and J.6.4 pipe end tolerances tightened),

  — end squareness (API Spec 5L, 9.12.6 defined in detail),

  — impact test pieces (API Spec 5L, Table 22 test piece size table corrected),

  — location of hardness tests (API Spec 5L, Figures H.1 and J.1 weld centre line for HFW detailed),

  — welded jointers (API Spec 5L, Annex M fit up and geometry, marking & NDT addressed),

  — a new annex N has been added for PSL 2 pipe ordered for applications requiring longitudinal plastic strain capacity, and

— changes on order of annexes.

— Annex M of the previous edition of this document, i.e. ISO 3183:2012/Amd 1:2017, for PSL 2 pipe ordered for European onshore natural gas transmission pipelines, is now provided as Annex A.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document was originally developed by harmonizing the requirements of API Spec 5L, 44th edition (2007) and the second edition of this document, i.e. ISO 3183:2007. This continued to be the case for the third edition of this document, i.e. ISO 3183:2012 and API Spec 5L, 45th edition (2012), in which clarification and additional technical requirements were added.