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**The People's Republic of China Petroleum and Natural
Gas Industry Standard**

中华人民共和国石油天然气行业标准

SY/T 5037-2012

Replace SY/T 5037-2000

**Submerged arc-welded steel pipe for common
fluid service pipeline**

普通流体输送管道用埋弧焊钢管

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Foreword

This Standard is drafted refer to the rules specified in GB/T 1.1-2009 Directives for Standardization-Part 1: Structure and Drafting of Standards.

This Standard replaces SY/T 5037-2000 *Spiral submerged arc-welded steel pipe for pipelines for low pressure fluid service*. Compared with SY/T 5037-2000, the major technical changes are as follows:

- Add LSAW relevant content in the standard application scope and related provisions;
- Limited steel pipe can only be used for water, sewage, air, heating steam and other general fluid running piping;
- "Nominal piping diameter, nominal wall thickness and line mass" in SY/T5037-2000 Table 1 is replaced by specifications of steel pipe using AH5L;
- The size range of "nominal outside diameter tolerance" in SY/T5037-2000 Table 2 is subdivided into three sections;
- The SY/T5037-2000 Table 3 will graded based on the wall thickness instead of the outer diameter. Thickness deviation, compared with SY/T5037-2000 is stricter, basically less than 10%;
- Control on deviation between piping actual mass and theoretical mass is added;
- The requirements of straight submerged arc mating piping are added;
- Hydrostatic Testing hoop stress is increased to 80% of the specified minimum yield strength and defines the maximum hydrostatic test pressure;
- The method of cutting welding seam to eliminate exceeding misalignment in SY/T5037-2000 is deleted;
- Limit that the welding seam length shall not exceed 20% of the piping length is added;
- Ultrasonic inspection method for detecting pipe end layering ISO10893-11: 2011 is added;

-- Appendix A is added, qualification of X-ray inspection personnel, testing equipment, X-ray industry television, computer capture assay sensitivity and calibration, as well as digital imaging inspection requirements, etc. are clearly defined;

-- The entire standard terms are properly consolidated and improved.

This Standard is under the jurisdiction of Standardization Technical Committee of Petroleum Tubular Goods.

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This standard replaces SY/T 5037-2000.

All previous publishing situation of SY/T 5037-2000 are as follows:

SY/T5037-1983, SY/T5037-1992.

Submerged arc-welded steel pipe for common fluid service pipeline

1 Scope

This standard specifies submerged arc welded steel pipes used for general fluid piping (including LSAW and SSAW steel piping, hereinafter referred to as "steel pipe") in size, shape, quality, performance requirements, test methods, inspection rules, coating, marking, quality certification, etc.

This standard is applicable to steel pipe used as water, sewage, air, heating steam and other general fluid piping, as well as other fluids piping having similar requirements.

Note: It shall be indicated in the contract the theoretical mass or actual mass (weighing) prevails in delivery (see 4.6.2).

2 Normative references

The following documents are indispensable for the application of this Document. In case the quoted document is dated, only its edition dated applies to this document, and in case the document is undated, its latest edition (including all amendment lists) applies to this document.

CB/T 222 Permissible tolerances for chemical composition of steel products

GB/T 223 Methods for chemical analysis of iron, steel and alloy

GB/T 241 Method tubes-Hydrostatic pressure testing

GB/T 700 Carbon structural steels

GB/T 2651 Method of tensile test for welded joint

GB/T 3323 Radiographic examination of fusion welded joints in metallic materials

GB/T 4336 Test method for spark discharge atomic emission spectrometric analysis of carbon and low-Alloy steel (routine method)

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