Guidelines for Design and Manufacture of Surface Wellhead Running, Retrieving and Testing Tools, Clean-out Tools and Wear Bushings

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Suggested revisions to this document are invited and should be submitted to the Standards Department, API, 200 Massachusetts Ave, NW, Suite 1100, Washington, DC 20001, standards@api.org.

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Introduction

This technical report is derived from requirements previously found in API Specification 6A, 20th Edition. U.S. Customary (USC) units and International System (SI) units are used in this technical report.

The fractions and their decimal equivalents are equal and interchangeable. Metric conversions and inch dimensions in this technical report are based on the original fractional inch designs. Functional dimensions have been converted into the metric system to ensure interchangeability of products manufactured in metric or inch systems.

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Guidelines for Design and Manufacture of Surface Wellhead Running, Retrieving and Testing Tools, Clean-out Tools and Wear Bushings

1 Scope

This technical report provides guidance for the design, materials selection, manufacture and testing of tools and equipment for running, retrieving, clean-out and testing of wellhead components and wear bushings.

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, except that new editions may be used on issue and shall become mandatory upon the effective date specified by the publisher or 6 months from the date of the revision (where no effective date is specified).

API Specification 5B, *Specification for Threading, Gauging and Thread Inspection of Casing, Tubing, and Line Pipe Thread*

API Specification 7-1, *Specification for Rotary Drill Stem Elements*

API Specification 7-2, *Specification for Threading and Gauging of Rotary Shouldered Thread Connections*

API Standard 6ACRA, *Age-hardened Nickel-based Alloys for Oil and Gas Drilling and Production Equipment*

ASME [1], *Boiler and Pressure Vessel Code, Section IX, Welding, Brazing, and Fusing Qualifications*

ASTM A370 [2], *Standard Test Methods and Definitions for Mechanical Testing of Steel Products*

ISO 148-1 *(all parts)* [3]*, Metallic materials—Charpy pendulum* impact *test*

ISO 6892-1, *Metallic materials—Tensile testing—Part 1: Method of test at room temperature*

NACE MR0175/*ISO 15156* [4]*, Petroleum and natural gas industries—Materials for use in H2S-containing environments in oil and gas production*

3 Terms, Definitions, Acronyms, Abbreviations, Symbols, and Units

3.1 Terms and Definitions

For the purposes of this document, the following definitions apply.

3.1.1
running tool
retrieving tool
Tool used to run, retrieve, position or connect wellhead equipment remotely.

NOTE A tool can be used as both a running tool and retrieval tool.

1 American Society of Mechanical Engineers, Two Park Avenue, New York, NY, 10016-5990.
2 American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohoken, PA 19428-2959.
3 International Organization for Standardization, 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland.
4 NACE International, 15835 Park Ten Place, Houston, Texas 77084.