Inspection and Classification of Used Drill Stem Elements

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

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1 Scope

This standard specifies the required inspection for each level of inspection, procedures for the inspection, and testing of used drill stem elements. For the purposes of this standard, drill stem elements include drill pipe body, tool joints, rotary shouldered connections, drill collar, heavy-weight drill pipe (HWDP), and the ends of drill stem elements that make up with them.

This standard also specifies the qualification of inspection personnel, a description of inspection methods and apparatus calibration, and standardization procedures for various inspection methods. The evaluation of imperfections and the marking of inspected drill stem elements is included.

This standard provides information for the evaluation of imperfections, the marking of inspected drill stem elements, and the requirements regarding the minimum information needed for the inspection of original equipment manufacturers' (OEM's) specialized tools.

2 Normative References

The following referenced standards are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced standard (including any addenda/errata) applies.

API Specification 5DP, *Drill Pipe*

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

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

API Recommended Practice 5A3, *Thread Compounds for Casing, Tubing, Line Pipe, and Drill Stem Elements*

3 Terms, Definitions, Symbols, and Abbreviations

3.1 Terms and Definitions

For the purposes of this standard, the following terms and definitions apply.

3.1.1
agency
Entity contracted to inspect used drill stem elements using the methods and criteria specified.

3.1.2
A-scan
Ultrasonic instrument display where distance is represented on the horizontal axis and signal strength on the vertical axis.

3.1.3
bending strength ratio
Ratio of the section modulus of the box thread at its last engaged thread to the pin thread at its last engaged thread.