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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 28906-2025

Replacing GB/T 28906-2012

Hot-rolled steel wire rod for cold heading

冷镦钢热轧盘条

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Standardization Administration of the PRC**

Table of Contents

Foreword

1 Scope

2 Normative references

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

This document replaces GB/T 28906-2012 "Hot-rolled cold-forging steel wire rod" and GB/T 29087-2012 "Non-quenched and tempered hot-rolled cold-forging steel wire rod" In addition to structural and editorial changes, the main technical changes are as follows.

--The sulfur and phosphorus contents have been changed (see Chapter 7, Chapter 6 of GB/T 28906-2012);

--Changed the grades of quenched and tempered cold heading steel hot rolled wire rods, adjusted according to GB/T 6478-2015, and added ML38, ML50, ML40Mn2, ML45Mn2, ML30CrMnSi, ML15CrMo, ML42CrMo, ML20CrMoV, ML35CrMoV, Ten grades of ML42CrMoV (see 7.1.3, 6.1.4 of GB/T 28906-2012);

--Added boron-containing quenched and tempered grades, including ML23B, ML28B, ML33B, ML38B, ML45B, ML20CrB, ML25CrB, ML35VB eight grades (see 7.1.3);

--The scope and composition of non-adjustable steel have been changed (see 7.1.4, 6.1.1 of GB/T 29087-2012);

--Added the residual molybdenum content requirement (see 7.1.5);

--Changed the mechanical property requirements (see 7.2.2.2, 7.2.3.1, 6.4.2 of GB/T 28906-2012, GB/T 29087-2012 of 6.5);

--Added low temperature impact performance requirements (see 7.2.3.2);

--Changed the requirements for macrostructure (see 7.7, 6.8 of GB/T 28906-2012);

--Added recommended quenching temperature and Rockwell hardness values at different distances from the quenching end (see 7.8);

--Changed the surface quality requirements (see 7.9, 6.9 of GB/T 28906-2012);

--Added size requirements (see 7.10.2);

--The coil weight of wire rod has been changed (see 7.10.3, 5.2 of GB/T 28906-2012);

--Added requirements for iron oxide scale (see 7.11);

--The test method has been changed (see 8.1, 8.2, Chapter 7 of GB/T 28906-2012).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Iron and Steel Association.

This document is under the jurisdiction of the National Technical Committee on Steel Standardization (SAC/TC 183).

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The previous versions of the documents replaced by this document are as follows.

--GB/T 28906-2012, GB/T 29087-2012.

Cold Heading Steel Hot Rolled Wire Rod

1 Scope

This document specifies the classification and grade representation method, ordering content, manufacturing process, technical requirements, test methods, Inspection rules, packaging, marking and quality certificates.

This document applies to cold heading for manufacturing fasteners such as bolts, screws and studs with a nominal diameter of 5 mm to 52 mm and cold heading steel wire.

Hot rolled steel wire rod (hereinafter referred to as "wire rod"), if it exceeds the scope of this

specification, can refer to this document for implementation.

2 Normative references

GB/T 222

GB/T 223.5

GB/T 223.9

GB/T 223.11

GB/T 223.12

GB/T 223.14

GB/T 223.26

GB/T 223.37

GB/T 223.40

GB/T 223.53

GB/T 223.54

GB/T 223.59

GB/T 223.60

GB/T 223.63

GB/T 223.78

GB/T 223.79

GB/T 223.81

GB/T 223.84

GB/T 223.85

GB/T 223.86

GB/T 224

GB/T 225

GB/T 226

GB/T 228.1

GB/T 229

GB/T 230.1