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

YB/T 5058-2005

**Cold-Rolled Spring and Tool Steel Strips
(English Translation)**

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Foreword

This Standard replaced YB/T 5058-1993 Cold-Rolled Spring and Tool Steel Strips.

Compared with the original standard, this Standard has the major modification contents as follows.

- Re-define the classification and code;
- Quote the dimension, shape and allowable tolerance from GB/T 15391-1994;
- Delete the Designation 65Si2MnWA.

This Standard was proposed by China Iron and Steel Industry Association.

This Standard shall be under the jurisdiction of National Technical Committee for Standardization of Steel.

Drafting organization of this Standard. China Metallurgical Information and Standardization Institute.

Chief drafting staffs of this Standard. Wang Xiaohu, and Dong Li.

The historical editions replaced by this Standard are as follows.

- GB 3525-1983; YB/T 5058-1993.

Cold-Rolled Spring and Tool Steel Strips

1 Scope

This Standard specifies the classification and code, dimension, shape, weight, technical requirements, test and inspection, package, marking and quality certificate, etc. of cold-rolled spring and tool steel strips.

This Standard is applicable to the cold-rolled spring and tools steel strips for manufacturing the springs, knives, tapes and other products with rolling width less than 600mm.

2 Normative References

The provisions in following documents become the provisions of this Standard through reference in this Standard. For dated references, the subsequent amendments (excluding corrigendum) or revisions do not apply to this Standard, however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 222-1984 Method of Sampling Steel for Determination of Chemical Composition and Permissible Variations for Product Analysis

GB/T 223.3 Methods for Chemical Analysis of Iron, Steel and Alloy - The Diantipyryl Methane Phosphomolybdate Gravimetric Method for the Determination of Phosphorus Content

GB/T 223.9 Methods for Chemical Analysis of Iron, Steel and Alloy - The Chrome Azurol S Photometric Method for the Determination of Aluminum Content

GB/T 223.10 Methods for Chemical Analysis of Iron, Steel and Alloy-The Cupferron Separation - Chrome Azurol S Photometric Method for the Determination of Aluminum Content

GB/T 223.11 Methods for Chemical Analysis of Iron, Steel and Alloy - Ammonium Sulfate Oxidation Volumetric Method for the Determination of Chromium Content

GB/T 223.14 Methods for Chemical Analysis of Iron, Steel and Alloy - The N-Benzoyl-N-Phenylhydroxylamine Extraction Photometric Method for the

Determination of Vanadium Content

GB/T 223.16 Methods for Chemical Analysis of Iron, Steel and Alloy - The

Chromotropic Acid Photometric Method for the Determination of Titanium Content

GB/T 223.18 Methods for Chemical Analysis of Iron, Steel and Alloy - The Sodium

Thiosulfate Separation Iodometric Method for the Determination of Copper

Content

3 Ordering Contents

When ordering product, the user shall provide the following information.

5 Dimension, Shape, Weight and Allowable Tolerance

The dimension, shape, weight and allowable tolerance of steel strip shall conform to the corresponding provisions of GB/T 15391-1994.

6.1 Designations and chemical compositions

The chemical compositions of T7, T7A, T8, T8A, T8Mn, T8MnA, T9, T9A, T10, T10A, T11, T11A, T12, T12A, T13, T13A shall conform to the provisions of GB/T 1298-1986.

The chemical compositions of Cr06 shall conform to the provisions of GB/T 1299-2000.

The chemical compositions of 85, 65Mn, 50CrVA, 60Si2Mn, 60Si2MnA shall conform to the provisions of GB/T 1222-1984.

6.2 Steel strips shall be delivered in coils. For the chilled steel strip and annealed steel

strip with thickness no greater than 0.3mm, the inner diameter of the coils shall be no less than 150mm; while the annealed steel strip with thickness greater than 0.3mm, the inner diameter of the coil shall be no less than 200mm.

6.4 According to the requirements of the purchaser, the hardness of the steel strip can

be inspected. The hardness value and test method shall be agreed by the supplier and the purchaser.

6.5 Through the negotiation between the two parties, the spheroidal annealed steel

strip can be supplied. The spherical pearlite level and the evaluation method shall be agreed by the supplier and the purchaser.

6.7 The surface of the higher-level steel strip shall be smooth and free of cracks,

crusting, foreign inclusions, iron oxide scale, rust and delamination. The individual tiny concaves, bumps, scratches, indentations and pitting with depth or height no greater than half thickness tolerance of steel strip are allowed to exist.

6.8 The surface of ordinary-level steel strip shall be oxidized, and free of cracks,

crusting, foreign inclusions, iron oxidized scales, rust, and delamination. The individual tiny concaves, bumps, scratches, indentations, pitting, as well as inconspicuous corrugations and troughs with depth or height no greater than thickness tolerance of steel strip are allowed to exist.

7.1 The quantity of inspection samples per batch of steel strips and the test methods

shall conform to the provisions of Table 4.

7.3.1 The width and gauge length of sample for tensile test shall conform to the provisions of Table 5.

7.4 The inspection on the depth of decarburization layer shall be performed as per

GB/T 224.

8.1 Steel strips shall be accepted in batches. Each batch consists of the steel strips

with the same designation, the same furnace number, the same dimension, the same type and the same group.