

ICS 77.140.25
CCS H 40



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

GB/T 33164.2-2016

**Spring Steels for Automotive Suspension System - Part 2: Hot
Rolled Round Steel Bar and Wire Rod
(English Translation)**

Issued on: October 13, 2016

Implemented on: September 1, 2017

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China**

Table of Contents

Foreword...	3
1 Application Scope...	4
2 Normative References...	4
3 Ordering Content...	6
4 Dimension, Shape and Weight...	7
5 Technical Requirements...	8
6 Test Methods...	14
7 Inspection Rules...	15
8 Packaging, Marking and Quality Certification...	16

Foreword

GB/T 33164, Spring Steels for Automotive Suspension System, is divided into two parts.

-- Part 1. Hot Rolled Flat Steels;

-- Part 2. Hot Rolled Round Steel Bar and Wire Rod.

This Part is Part 2 of GB/T 33164.

This Part was drafted in accordance with the rules given in GB/T 1.1-2009.

This Part was proposed by China Iron and Steel Association.

This Part shall be under the jurisdiction of the National Standardization Technical Committee on Steels (SAC/TC 183).

The drafting organizations of this Part. Jiangyin Xingcheng Special Steel Co., Ltd., Qingdao Special Steel and Iron Co., Ltd., Fangda Special Steel Technology Co., Ltd., China Metallurgical Information and Standardization Institute, Beijing Jiaotong University.

1 Application Scope

This Part specifies the ordering content, dimensions, shape, weight, technical requirements, test methods, inspection rules, packaging, marking and quality

certification of round steel bars and wire rod for spiral spring, torsion bar and stabilizer bar in automotive suspension system.

This Part applies to hot rolled round steel bar of nominal diameter not greater than 80 mm and hot rolled wire rod of nominal diameter not greater than 40 mm (hereinafter referred to as steels).

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition dated applies to this document. For undated references, the latest edition of the referenced documents (including all amendments) applies to this Part.

GB/T 222, Permissible Tolerances for Chemical Composition of Steel Products

GB/T 223.11, Iron, Steel and Alloy - Determination of Chromium Content - Visual Titration or Potentiometric Titration Method

GB/T 223.13, Methods for Chemical Analysis of Iron, Steel and Alloy- The Ammonium Ferrous Sulfate Titration Method for the Determination of Vanadium Content

GB/T 223.19, Methods for Chemical Analysis of Iron Steel and Alloy - The Neocuproine-Chloroform Extraction Photometric Method for the Determination of Copper Content

GB/T 223.23, Iron, Steel and Alloy - Determination of Nickel Content - The Dimethylglyoxime Spectrophotometric Method

GB/T 223.26, Iron, Steel and Alloy - Determination of Molybdenum Content - The Thiocyanate Spectrophotometric Method

GB/T 223.59, Iron, Steel and Alloy - Determination of Phosphorus Content - Bismuth Phosphomolybdate Blue Spectrophotometric Method and Antimony Phosphomolybdate Blue Spectrophotometric Method

GB/T 223.60, Methods for Chemical Analysis of Iron, Steel and Alloy - The Perchloric Acid Dehydration Gravimetric Method for the Determination of Silicon

Content

GB/T 223.64, Iron, Steel and Alloy - Determination of Manganese Content - Flame

Atomic Absorption Spectrometric Method

GB/T 223.72, Iron, Steel and Alloy - Determination of Sulfur Content - Gravimetric

Method

GB/T 223.82, Steel and Iron - Determination of Hydrogen Content - Inert Gas

Impulse Fusion Heat Conductivity Method

GB/T 223.86, Steel and Iron - Determination of Total Carbon Content - Infrared

Absorption Method after Combustion in an Induction Furnace

GB/T 224, Determination of Depth of Decarburization of Steels

GB/T 225, Steel - Hardenability Test by End Quenching (Jominy Test)

GB/T 226, Test Method for Macrostructure and Defect of Steel by Etching

GB/T 228.1, Metallic Materials - Tensile Testing - Part 1. Method of Test at Room

Temperature

GB/T 231.1, Metallic Materials - Brinell Hardness Test - Part 1. Test Method

GB/T 702-2008, Hot-rolled Steel Bars - Dimensions, Shape, Weight and Tolerances

GB/T 1814, Inspection Method for Steel Work Fractures

GB/T 1979, Standard Diagrams for Macrostructure and Defect of Structural Steels

GB/T 2101, General Requirement of Acceptance, Packaging, Marking and

Certification for Section Steel

GB/T 2975, Steel and Steel Products - Location and Preparation of Test Pieces for

Mechanical Testing

GB/T 3207-2008, Bright Steel

GB/T 4162, Forged and Rolled Steel Bars - Method for Ultrasonic Testing

GB/T 4336, Carbon and Low-alloy Steel - Determination of Multi-element Contents

- Spark Discharge Atomic Emission Spectrometric Method (Routine Method)

GB/T 5216-2014, Structural Steels with Specified Hardenability Bands

GB/T 6394, Metal - Methods for Estimating the Average Grain Size

GB/T 7736, Ultrasonic Inspecting Method for Macro-Structure and Imperfection of Steel

GB/T 8170, Rules of Rounding off for Numerical Values and Expression and Judgement of Limiting Values

GB/T 10561-2005, Steel - Determination of Content of Nonmetallic Inclusions - Micrographic Method Using Standards Diagrams

GB/T 11261, Steel and Iron - Determination of Oxygen Content - The Pulse Heating Inert Gas Fusion-Infra-Red Absorption Method

GB/T 13298, Inspection Methods of Microstructure for Metals

GB/T 13299, Steel - Determination of Microstructure

GB/T 13302, Steel-Determination of Area Content of Graphite-Micrographic Method Using Diagrams

GB/T 14981-2009, Dimension, shape, mass and tolerance for hot-rolled round wire rod

GB/T 17505, Steel and Steel Products - General Technical Delivery Requirements

GB/T 20066, Steel and Iron - Sampling and Preparation of Samples for the Determination of Chemical Composition

GB/T 20123, Steel and Iron - Determination of Total Carbon and Sulfur Content Infrared Absorption Method after Combustion in an Induction Furnace (Routine Method)

GB/T 20124, Steel and Iron - Determination of Nitrogen Content - Thermal Conductimetric Method after Fusion in a Current of Inert Gas

3.1 The contract for ordering in accordance with this Part shall include the following

content.

- a) number of this Part;
- b) name of this Part;
- c) product name;