

JB

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

JB/T 10416-2004

Coil springs for suspensions - Technical requirements

悬架用螺旋弹簧 技术条件

(English Translation)

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1 Scope

This standard specifies the specification, test method, marking, packaging as well as test and inspection rule of automobile suspension spring (hereinafter referred to as spring).

This standard is applicable to automobile suspension spring (hereinafter referred to as

spring).

2 Normative References

The following normative documents contain provisions which, through reference in this text, constitute provisions of this standard. For dated references, subsequent amendments to (excluding amending errors in the text), or revisions of, any of these publications do not apply. However, all parties coming to an agreement according to this standard are encouraged to study whether the latest edition of the normative document is applicable. For undated references, the latest edition of the normative document applies.

GB/T 224 Determination of Depth of Decarburization of Steel

GB/T 230 Metallic Materials - Rockwell Hardness Test (GB/T 230-991, neq ISO 6508:1986)

GB/T 231.1 Metallic Materials - Brinell Hardness Test - Part 1: Test Method (GB/T 231.1-2002, eqv ISO 6506-1:1999)

GB/T 1222 Spring Steels (GB/T 1222-1984, neq ISO 4801:1977)

JB/T 7944 Sampling Procedures for Inspection by Attributes of Coiled Helical Springs

QC/T 484-1999 Automobiles Paint Coating

3.1.1

Materials specified in GB 1222 or those approved by the customer shall be adopted for spring materials.

3.1.2

Materials must be provided with quality guarantee given by the material manufacturer and may only be used after passing the re-inspection.

3.2.1 End ring diameter

The diameter tolerance of spring end ring is $\pm 1.5\text{mm}$.

3.2.2 Total number of coils

Tolerance of the total number of coils for spring is $\pm 1.2\%$ of the total number of coils n_1 . For spring with unground end ring and installed in irrotational seat, such tolerance shall be strictly required to be $\pm 0.5\%$ of the total number of coils n_1 .

3.2.3 Pitch uniformity

Where the equal-pitch spring without sheath is compressed to the maximum load, its normal pitch shall not be contacted. The equal-pitch spring with sheath is subject to

negotiation between supplier and purchaser.

3.2.4 End ring grinding surface

For grinded spring with tight end ring, the roughness of grinding surface R_a is not less than $6.3\mu\text{m}$, the grinding range is not less than 270° and the end thickness shall be $(1/4)d \pm 2\text{mm}$.

3.2.5 Axis straightness

For cylindrical spring under free state, the axis straightness tolerance of spring shall not be greater than 1.5% of the free height H_0 .