

ICS 21.160
CCS J26



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

GB/T 16947-2009

Replacing GB/T 16947-1997

Helical spring fatigue testing standard

螺旋弹簧疲劳试验规范

Issued on: March 16, 2009

Implemented on: November 1, 2009

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

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Foreword

This standard is GB/T 16947-1997 "coil spring fatigue testing standard" amendments. Remains revising GB/T 16947-1997 "Coil spring fatigue testing standard" valid part, no longer meet the revised content. This standard has been revised with the main standards To differences are as follows:

--- According to the original standard GB/T

1.1 were editorial changes;

--- Delete the original standard table 2;

--- Adjust the original criteria specified in Table 3 types of products as well as the role of the number of cycles, and as informative annex;

--- Remove the original criteria specified in Table 4 according to the reliability of the fatigue life of the product classification;

--- Adjust the original standard table 5 (now Table 2) the minimum number of samples recommended;

--- Table B. Reliability R 1 meter valuations were checked and integration. This standard Annex A, Annex B and Annex C is informative appendix. The standard proposed by China Machinery Industry Federation. The standard spring by the National Standardization Technical Committee (SAC/TC235) centralized. This standard is drafted by: Changzhou Ming Kam Spring Co., Ltd., Beijing University of Technology. Participated in the drafting of this standard. Wuxi Sawane Spring Co., United Artists Shandong Automobile Spring Co., Ltd. Yangzhou spring, often State Spring Co., Ltd., the machine Productivity Promotion Center, Zhejiang Meili Spring Co., Ltd., Zhejiang Jinchang Spring Co., Ltd., Hangzhou Qianjiang bomb Reed Ltd., Hangzhou Fuchun Spring Co., Ltd., Wuxi STEEL SPRING CO. The main drafters. Zhang Ying will, Caohui Rong, Yang Weiming, Mayou Fang, Jiang Ying, Wang Shaoju, Hu Jia Wu Gang, Tu Shirun, Wang Wei, Zhangyong Sen, Shao Wenwu, Zhou Ping steel. This standard replaces the standards previously issued as follows:

--- GB/T 16947-1997. The coil spring fatigue testing standard

1 Scope

GB/T 16947-2009 is the Chinese national standard on helical spring fatigue testing standard, in the field of mechanical systems and components. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 16 March 2009 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 November 2009. Classification: ICS 21.160, CCS J26. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the test specification for fatigue under variable load of the coil spring. This standard applies to helical compression and tension spring (hereinafter referred to as spring) verification of the fatigue life and reliability assessment. For variable loads for Other spring products by the following reference may be used.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 23935 cylindrical coil spring design calculation GB/T 1805 spring term

3 Terms, definitions and symbols Basic terms of the spring according to

GB/T 1805 regulations. And fatigue tests related terms, definitions, symbols and units are shown in FIG. 1 and Table 1. Figure 1 a schematic view of a load change Table

1 Symbol Definition Unit Fatigue life validation tests To determine the level of spring fatigue life or verify whether a given life Life test object is carried out Reliability Evaluation Test To determine the level of reliability of the spring or verify whether a given reliable The target value of the object of the test which was conducted Reliability R Sample spring (hereinafter referred to as the sample) under specified conditions and provisions for circulation Probability does not fail in the number of