

ICS 45.060
CCS S 40

TB

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

TB/T 2211-2010

**Steel helical spring of suspension mechanism for rolling stock
(English Translation)**

Issued on: December 2, 2010

Implemented on: June 1, 2011

**Issued by: Ministry of Railways of People's Republic of China 3.No action
is required - Full-copy of this standard will b**

Table of Contents

Foreword...	4
1 Scope...	6
2 Normative references...	6

Foreword

This standard was drafted in accordance with the rules given in GB/T

1.1-2009.

This standard partially replaces the suspension spring part of the TB/T 1025-2000 "Technical conditions for the supply of hot coil helical compression springs for rolling stock", AND the part which is not replaced is the spring used for buffer and traction device.

As compared with TB/T 1025-2000 "Technical conditions for the supply of hot coil helical compression springs for rolling stock", the main technical changes of this standard are as follows.

- ADD the spring material dedicated for railway AND some spring materials of European standards (SEE 6.3.3 and Table 5 of 6.4.1);
- ADD the information of spring transverse movement (SEE item 15 of Table 1), transverse stiffness (SEE 5.2.3.2), transverse free offset or bending (SEE 5.2.3.3), transverse stiffness test (SEE 7.3), and transverse fatigue test (SEE Appendix C); DETAIL the spring transverse characteristics, calculation, and test methods;
- MAKE reference to the determination of non-metallic inclusions in steel - Standard rating chart microscopy method in GB/T 10561-2005.

This standard replaces TB/T 2211-1991 "Fatigue test of cylindrical helical spring for rolling stock". As compared with TB/T 2211-1991, the main technical changes are as follows.

- DELETE the Appendix C "Repeatability of shot peening pre-stressing effect" of EN 13298.2002 (SEE Appendix C of 2003 version);
- ADD the TB/T 1758 "Technical conditions for shot peening of rolling stock springs", which is directly quoted in the standard (SEE 5.3.2.4);
- ADD the "Fatigue test" requirements (SEE 7.9);
- ADD the transverse fatigue test methods; ADJUST the spring vertical and transverse fatigue test specifications (SEE Appendix C);
- MAKE adjustment against the contents of the reference (SEE references).

This standard, through the re-drafting method, modifies and adopts EN

13298.2002 "Railway applications - Suspension components - Helical suspension springs, steel".

Steel helical spring of

suspension mechanism for rolling stock

1 Scope

This standard specifies the geometric characteristics, application requirements, technical specification, test methods, product quality, marking and packaging of the steel helical spring of suspension mechanism for the newly designed rolling stock (hereinafter referred to as spring).

This standard applies to.

- Steel helical spring of suspension mechanism for railway rolling stock;
- Equal pitch cylindrical compression springs made of circular cross-section equal-diameter steel bar;
- Other different shaped helical springs (such as conical helical springs, unequal pitch springs, or the springs made of steel bar having other shaped cross-sections).

2 Normative references

The following documents are essential to the application of t...

.....