

Translated English of Chinese Standard: GB/T5617-2005

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NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

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GB/T 5617-2005

Replacing GB/T 5617-1985

Determination of Effective Depth of Hardening after

Induction or Flame Hardening of Steel

钢的感应淬火或火焰淬火后有效硬化层深度的测定

(ISO 3754:1976, NEQ)

Issued on: July 21, 2005

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Quarantine;

Standardization Administration of the People's Republic of
China.

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Foreword

The degree of consistency between this Standard and ISO 3754:1976 *Steel - Determination of Effective Depth of Hardening after Flame or Induction Hardening* is non-equivalent.

This Standard was re-drafted in accordance with ISO 3754:1976.

This Standard is an amendment of GB/T 5617-1985 *Determination of Effective Depth of Hardening after Induction or Flame Hardening of Steel*.

In accordance with the requirements of GB/T 1.1-2000 *Directives for Standardization - Part 1: Rules for the Structure and Drafting of Standards*, this Standard makes corresponding modifications in structure, formatting and textual expression, such as:

- The code of the international standard being adopted and the degree of adoption are added to the cover;
- Foreword is added;
- Content that shall not appear in "Scope" or "Terms and Definitions" is adjusted to "General Provisions";
- "Subject Content and Scope of Application" is modified into "Scope"; "Normative References", "Terms" and "English Terms" are added;
- Textual modifications are made to some clauses.

Considering that in the practical implementation of GB/T 5617-1985 *Determination of Effective Depth of Hardening after Induction or Flame Hardening of Steel*, many enterprises adopt the verification method, which is not only simple and practical, but also conducive to improving the accuracy of the determination of effective depth of hardening. For this reason, relevant clauses of verification are added to this amendment.

This Standard was proposed by China Machinery Industry Federation.

This Standard shall be under the jurisdiction of National Technical Committee on Heat Treatment of Standardization.

The drafting organizations of this Standard: Shanghai Research Institute of Materials; Shanghai Qiantong Automobile Accessories Co., Ltd.

The main drafters of this Standard: Gao Yushun, Dong Huiming.

The issuing of the previous version:

Determination of Effective Depth of Hardening after Induction or Flame Hardening of Steel

1 Scope

This Standard specifies the meaning and determination method of effective depth of hardening (DS) of steel parts after induction or flame hardening.

This Standard is applicable to parts whose effective depth of hardening is greater than 0.3 mm after induction or flame hardening.

2 Normative References

Through the reference in this Standard, the clauses of the following documents become clauses of this Standard. In terms of references with a specified date, all the subsequent modification sheets (excluding the corrected content) or revised versions are not applicable to this Standard. However, the various parties that reach an agreement in accordance with this Standard are encouraged to explore the possibility of adopting the latest version of these documents. In terms of references without a specified date, the latest version is applicable to this Standard.

GB/T 230.1-2004 *Metallic Rockwell Hardness Test - Part 1: Test Method (scales A, B, C, D, E, F, G, H, K, N, T)* (ISO 6508-1:1999, MOD)

GB/T 4340.1-1999 *Metallic Materials - Vickers Hardness Test - Part 1: Test Method*

GB/T 7232-1999 *Terminology of Metal Heat Treatment*

GB/T 9450-2005 *Steels - Determination and Verification of the Depth of Carburized and Hardened Cases* (ISO 2639:2002, MOD)

GB/T 18449.1-2001 *Metallic Knoop Hardness Test - Part 1: Test Method*

3 Terms and Definitions

The terms and definitions determined in GB/T 7232, and the following terms and definitions are applicable to this Standard.

Limiting Hardness

Limiting hardness is generally 0.8 times of the minimum hardness (HV) required by the surface of parts, as it is shown in the following formula:

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