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

GB/T 34564.2-2017

Cold-work mould steel - Part 2: Flame quenchable steels

冷作模具钢 第2部分：火焰淬火热钢

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Foreword

GB/T 34564 "cold work die steel" is divided into two parts.

--- Part 1. High toughness high wear-resistant steel;

--- Part 2. Flame hardened steel. This section GB/T 34564 Part 2. This section drafted in accordance with GB/T 1.1-2009 given rules. This part is proposed by China Iron and Steel Association. This part of the National Standardization Technical Committee Steel (SAC/TC183) centralized. This part of the drafting unit. Fushun Special Steel Co., Ltd., Steel Research Institute, Sichuan Liuhe Forging Co., Ltd., metallurgical industry Information Standards Institute. The main drafters of this section. Gu Qiang, Ma Dangshen, Kang Aijun, Dai Qiang, Chi Hong Xiao, Gao Gang Yi, Yue Cai Chao, Liu Xiao, Cai Shaorong. Cold work die steel Part 2. Flame hardened steel

1 Scope

Part 2 of China's national standard for cold work die steel, covering the flame quenchable grades. It specifies the composition, dimensions, shape, weight, technical requirements, test methods, inspection rules and packaging, marking and quality certificate, and it applies to hot-rolled, forged and machined product. Flame quenching is what makes a very large die possible. A press tool for a car body panel can weigh several tonnes and measure metres across, and there is no furnace that will take it, no quench tank that will not distort it, and no economic case for either. Flame quenching hardens only the working surface: an oxy-fuel torch traverses the profile, heating a shallow layer above its transformation temperature, and a water spray follows a fixed distance behind. The result is a hard wearing surface on a tough unhardened body, with the bulk of the die never having moved. The steel has to be formulated for it - hardenable enough to transform in a thin layer at high cooling rate, stable enough not to crack behind the torch.

GB/T 34564 provisions of this part flame quenching cold work die steel content, size, shape, weight, technical requirements, test Method, inspection rules, packaging, marking and quality certificate. This section applies to flame quenching cold work die steel hot-rolled, forging and machining delivery of steel. This section provides the grades and chemical composition also applies to ingots, billets and their products.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 223.11 steel and alloy chromium content - Visual titration or potentiometric titration

GB/T 223.14 Methods for chemical analysis of iron, steel and alloy - The tantalum reagent extraction photometric method for the determination of vanadium content

GB/T 223.19 Methods for chemical analysis of iron, steel and alloy The neocuproine-chloroform extraction spectrophotometric method for the determination of copper content Steel and alloy - Determination of molybdenum content - Thiocyanate spectrophotometric method

GB/T 223.29 steel and alloy - Determination of lead content carrier precipitation - xylene orange spectrophotometry Steel and alloy - Determination of arsenic content - Distillation separation - Molybdenum blue spectrophotometric method

GB/T 223.47 Methods for chemical analysis of iron, steel and alloy - The molybdenum blue photometric method for the determination of the amount of antimony

GB/T 223.48 Methods for chemical analysis of iron, steel and alloy - The photometric method for the determination of bismuth content

GB/T 223.50 Methods for chemical analysis of iron, steel and alloy The determination of phenylfluorone-cetyltrimethylammonium bromide by spectrophotometry Tin content

GB/T 223.54 Methods for chemical analysis of iron, steel and alloy - The flame atomic absorption spectrophotometric method for the determination of nickel content

GB/T 223.58 Methods for chemical analysis of iron, steel and alloy - The sodium arsenite - sodium nitrite titration method for the determination of manganese content

GB/T 223.59 steel and alloy - Determination of phosphorus content bismuth phosphomolybdate blue spectrophotometry and antimony phosphomolybdate blue spectrophotometry

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 223.68 Methods for chemical analysis of iron, steel and alloy - The potassium iodate titration method after combustion in tube furnace for the determination of sulfur content

GB/T 223.71 Methods for chemical analysis of iron, steel and alloy The gravimetric method for the determination of carbon content after combustion in the tube furnace Steel - Determination of hydrogen content - Gravimetric method Determination of depth of

decarburization GB/T 224 steel

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