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

GB/T 25825-2010

Rolls for hot strip mills and plate mills

热轧钢板带轧辊

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Quarantine;
Standardization Administration of the PRC**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. Appendix A of this standard is a normative appendix. The standard proposed by China Iron and Steel Association. This standard by the National Steel Standardization Technical Committee (SAC/TC183) centralized. This standard was drafted. a total of Jiangsu Chang Roll Co., Ltd., China Steel Research Institute Group Limited. The main drafters of this standard. Shao Shun Cai, oath Yu Da, Zhou Jun, Shaosu Yun, Palace open orders, Zhou Qin Zhong, Zhang Wenjun, Li Wu. Hot-rolled steel strip roll

1 Scope

China's national standard for the rolls used in hot strip and plate mills. It specifies the classification, the technical requirements, the test methods, the inspection rules and the marking, packaging, transport and storage of hot rolling rolls. A mill roll is a consumable that costs as much as a machine tool. It is a large forged or cast cylinder that must be hard enough at the surface to resist wear and the abrasion of scale, tough enough in the body not to break, and stable enough to keep its profile while a strip at eleven hundred degrees passes under it under a load of thousands of tonnes - and it is cooled by water sprayed onto a surface that is repeatedly heated by the stock, so it lives in continuous thermal cycling. Its failure modes are what the standard is written against: surface spalling, where fatigue below the contact surface detaches a piece of the barrel; firecracking, the network of thermal fatigue cracks that develops on the surface and eventually prints onto the strip; and outright breakage, which in a mill running at speed destroys the stand. The classification is by position, because the duty differs completely along the mill. Roughing rolls take heavy reductions on thick hot stock and are chosen for toughness and hot strength; finishing work rolls run at speed against thin strip and are chosen for wear resistance and surface quality, which is why high-chromium and high-speed steel work rolls displaced the older grades;

and back-up rolls carry the separating force without touching the stock and are chosen for bulk fatigue strength. So the standard specifies the materials and manufacture for each, the hardness and its uniformity along the barrel, the microstructure, the non-destructive examination and the dimensional requirements. Issued on 23 December 2010 and in force since 1 September 2011.

This standard specifies the technical requirements for hot-rolled steel strip roll, test methods, inspection rules, labeling, packaging, quality certificate and ultrasonic Detection method. This standard applies to nominal width of 1200mm and above hot rolled steel sheet and strip rolling mill work rolls, back-up roll and vertical roll.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 222 chemical composition of finished steel tolerance

GB/T 223.3 steel and alloy chemical analysis method two antipyrine methane phosphomolybdate gravimetric method for the determination of phosphorus content (

GB/T 223.3- 1988, neqASTME30. 1980)

GB/T 223.5 steel Determination of total soluble silicon and silicon content reduced silicon molybdate salt spectrophotometric method (GB/T 223.5- 2008, ISO 4829-1. 1986,

ISO 4829-2. 1988, MOD) Determination of

GB/T 223.11 steel and alloy chromium content of visual titration or potentiometric titration (GB/T 223.11-2008, ISO 4937. 1986, MOD)

GB/T 223.13 Methods for chemical analysis of iron, steel and alloy The ammonium ferrous sulfate titration method for the determination of vanadium content

GB/T 223.18 Methods for chemical analysis of iron, steel and alloy The sodium thiosulfate separation - determination of copper content Iodometry

GB/T 223.19 Methods for chemical analysis of iron, steel and alloy neocuproine - chloroform extraction spectrophotometric determination of copper content Determination of cobalt content

GB/T 223.20 Methods for chemical analysis of iron, steel and alloys by potentiometric titration

GB/T 223.21 Methods for chemical analysis of iron, steel and alloy 5-CI-PADAB spectrophotometric determination of cobalt content

GB/T 223.22 Methods for chemical analysis of iron, steel and alloy nitroso R salt

spectrophotometric determination of cobalt content

GB/T 223.23 steel and alloy - Determination of nickel content dimethylglyoxime
spectrophotometry Determination of nickel content

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