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

GB/T 3207-2025

Replacing GB/T 3207-2008

Bright steel

银亮钢

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1 Scope

GB/T 3207-2025 is the Chinese national standard covering cold drawn, peeled or ground bar - the dimensional tolerances and straightness that let it be machined without a roughing cut, the surface finish and decarburisation depth, and the mechanical properties in the drawn condition. It replaces GB/T 3207-2008, under the China Iron and Steel Association. In force from 1 May 2026. Issued on 31 October 2025, it has been in force since 1 May 2026, replacing GB/T 3207-2008.

This document specifies the classification code, ordering details, manufacturing process, technical requirements, test methods, inspection rules, packaging, marks, and quality certificate for bright steel. This document applies to flake, polish, and buff steels with a nominal diameter not exceeding 220 mm that require high surface quality.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 222, Steels and alloys -- Allowable deviations of product analyzed chemical composition

GB/T 223 (all parts), Iron, steel and alloy

GB/T 224, Determination of the depth of decarburization of steels

GB/T 225, Steel -- Hardenability test by end quenching (Jominy test)

GB/T 226, Test Method for Macrostructure and Defect of Steel by Etching

GB/T 228.1, Metallic materials -- Tensile testing -- Part

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 bright steel Round steel with no rolling defects or decarburized layer on the surface and a bright finish. NOTE. It is further divided into flake steel, polish steel, and buff steel.

3.2 flake steel Round steel that is produced by removing rolling defects and decarburized layers through turning and peeling, followed by rolling.

3.3 polish steel Round steel that has been drawn or peeled and then polished.

3.4 buff steel Round steel that has been drawn, machined and peeled or ground are then polished.

4 Classification code Bright steel is divided into three categories according to different delivery conditions. Their classification codes are shown in Table 1.

5 Ordering content Contracts or orders placed in accordance with this document shall include the following.

- a) Reference to this document;
- b) Product name;
- d) Dimensions and precision;
- e) Surface roughness level;
- f) Order weight (or quantity);
- g) Delivery condition;
- h) Other requirements.

6 Manufacturing process

6.1 Smelting method The smelting methods for bright steel shall comply with the provisions of the relevant product standards such as GB/T 699, GB/T 1220, GB/T 1222, GB/T 1299, GB/T 3077, GB/T 3078, GB/T 4240, GB/T 5216, GB/T 8731, GB/T 15712, and GB/T 18254.

6.2 Delivery state

6.2.1 The delivery condition of bright steel is divided into three categories according to

different cold working methods. flaking, polishing and buffing.

6.2.2 Before production of bright steel, heat treatment may be performed depending on the capacity of the cold working equipment or the requirements of the customer.

6.2.3 As required by the purchaser and specified in the contract, the finished bright steel products may be supplied in a heat-treated state.

7 Technical requirements

7.1 Decarburization layer The surface of bright steel shall not have a decarburized layer.

7.2 Surface quality

7.2.1 The surface of the bright steel shall be clean and smooth. There shall be no visible external defects such as cracks, hairline cracks, folds, scratches, dents, scale, corrosion, or oxide scale. Individual minor scratches, straightening marks, and peeling spirals with a depth not exceeding half the tolerance are allowable. Oxidation discoloration is allowable in heat-treated bright steel.

7.2.2 Upon the purchaser's request, bright steel may be inspected using non-destructive testing methods. The specific non-destructive testing qualification level shall be specified in the contract.

7.2.3 The surface roughness of the bright steel shall conform to the specifications in Table

2.If the supplier can guarantee this, inspection is not required.

7.2.4 Upon the purchaser's request, and after consultation between both parties and as specified in the contract, bright steel with other roughness requirements may be provided.

7.3.1 Dimensions

7.3.1.1 The cross-sectional shape and labeling symbols are shown in Figure 1.

7.3.1.2 The nominal diameter, reference cross-sectional area and reference weight of bright steel are given in Annex A.

7.3.1.3 Upon the purchaser's request, and after consultation between the supplier and the purchaser, and as specified in the contract, other sizes of bright steel within the adjacent size range in Annex A may be supplied.

7.3.2 Allowable diameter deviation

7.3.2.1 The allowable deviation of the nominal diameter of bright steel shall conform to the provisions of Table