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ENTERPRISE STANDARD OF BAOSHAN IRON AND STEEL CO., LTD

Q/BQB 303-2023

Replacing Q/BQB 303-2020

Continuously Hot-Rolled Steel Sheet and Strip for General Structure

一般结构用热连轧钢板及钢带

Issued on: April 9, 2023 Implemented on: July 1, 2023

Issued by: Baoshan Iron and Steel Co., Ltd.

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Continuously Hot-Rolled Steel Sheet and Strip for General Structure

1 Scope

This Document specifies the dimensions, shape, technical requirements, test and inspection, packaging, marking and inspection documents of continuously hot-rolled steel sheets and strips for general structure.

This Document applies to continuously hot-rolled steel strips for general structure produced by Baoshan Iron & Steel Co., Ltd., as well as the steel sheets cut horizontally and the steel strips cut longitudinally, hereinafter referred to as steel sheets and steel strips. The products are mainly used for structural parts such as buildings, bridges, ships, and vehicles.

2 Normative References

The provisions in following documents become the essential provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates indicated are applicable to this Document; for the undated documents, only the latest version (including all the amendments) is applicable to this Document.

GB/T 222-2006 Permissible Tolerances for Chemical Composition of Steel Products

GB/T 223 Methods for chemical analysis of iron, steel and alloy

GB/T 228.1-2021 Metallic materials - Tensile testing - Part 1: Method of test at room temperature

GB/T 229 Metallic materials - Charpy pendulum impact test method

GB/T 232 Metallic materials - Bend testing method

GB/T 2975 Steel and steel products - Location and preparation of samples and test pieces for mechanical testing

GB/T 4336 Carbon and low-alloy steel - Determination of multi-element contents - Spark discharge atomic emission spectrometric method (routine method)

GB/T 4340.1 Metallic materials - Vickers hardness test - Part 1: Test method

GB/T 8170 Rules of rounding off for numerical values & expression and judgement of limiting values

GB/T 20066 Steel and Iron - Sampling and Preparation of Samples for the Determination of Chemical Composition

GB/T 20123 Steel and iron - Determination of total carbon and sulfur content Infrared absorption method after combustion in an induction furnace (routine method)

GB/T 20124 Steel and iron - Determination of nitrogen content - Thermal conductimetric method after fusion in a current of inert gas

GB/T 20125 Low-alloy steel - Determination of multi-element contents - Inductively coupled plasma atomic emission spectrometric method

Q/BQB 300 General rules of package, mark and inspection document for continuously hot rolled steel sheet and strip

Q/BQB 301 Hot-rolled steel sheets and strips – Dimensions, shape, weight and tolerances

3 Terms and Definitions

For the purposes of this Document, there are no terms and definitions apply.

4 Classification and Code

- **4.1** The designations, nominal thickness and uses of steel sheets and strips are shown in Table
- **4.2** According to the surface treatment method, they are divided into:
 - a) Pickled surface;
 - b) Rolled surface.
- **4.3** According to the surface quality level, they are divided into:
 - a) Ordinary surface, FA;
 - b) Higher surface, FB.
- **4.4** According to product category, they are divided into:
 - a) Hot-rolled steel strip;
 - b) Hot-rolled steel sheet;
 - c) Hot-rolled flat steel strip;

- **5.2.1** When the surface treatment method is not specified, make delivery according to the rolled surface.
- **5.2.2** For hot-rolled steel sheets and strips, except for the thickness tolerance of designations SPHT1, SPHT2, SPHT3 and SPHT4 according to Table 2, when the dimensional accuracy is not specified, it is delivered with ordinary accuracy; when the edge state is not specified, the steel strip is delivered in an untrimming state; and the steel sheet is delivered in a trimming state (except for the designation B750GJ which is delivered in an untrimming state).
- **5.2.3** For hot-rolled pickled steel sheets and strips, except for designations SPHT1, SPHT2, SPHT3 and SPHT4 whose thickness tolerances are in accordance with Table 2, when the dimensional accuracy is not specified, the thickness shall be delivered with higher thickness accuracy and other dimensions with ordinary accuracy. When the edge state, surface quality level and whether oiled are not specified, the steel shall be delivered with trimming edge state, higher-level surface and oiled. When the inner diameter of the steel coil is not specified, the steel coil shall be delivered according to the inner diameter of 610mm.

6 Dimension, Shape, Weight and Allowable Deviation

The thickness allowable deviation of designations SPHT1, SPHT2, SPHT3 and SPHT4 shall comply with the provisions of Table 2. Other dimensions, shapes, weights and allowable deviations shall comply with the provisions of Q/BQB 301; thereof, the allowable values of unevenness of SPHT1, SPHT2, SPHT3 and SPHT4 shall comply with the provisions of the minimum yield strength of no more than 300MPa. If the purchaser has higher requirements for thickness accuracy, the advanced accuracy PT.C given in Table 4 of Q/BQB 301 can be selected when placing an order; thereof, the SPHT1, SPHT2, SPHT3 and SPHT4 shall comply with the provisions of minimum yield strength of less than 360MPa.

8.6 Reinspection

- **8.6.1** If the impact test results do not meet the specified requirements, three more specimens can be taken from the same sampled product for reinspection. At this time, the test results (average value) of the six samples before and after shall be no less than the specified value; and there can be no more than two specimens below the specified value; and only one of the values is allowed to be less than 70% of the specified value.
- **8.6.2** If other test results do not meet the standard requirements, double quantity of specimens shall be taken from the same batch for re-inspection of the unqualified item.
- **8.6.3** If the reinspection results (including all the indicators required by the item test) are qualified, the whole batch shall be qualified. If even one indicator of the reinspection results (including all the indicators required by the item test) is unqualified, the reinspection is unqualified.
- **8.6.4** If the reinspection is unqualified, the single piece that has been tested and the test results are not in accordance with the requirements shall not be accepted; but the single piece that has not been tested in the batch of materials can be resubmitted for testing and acceptance piece by piece.

9 Packaging, Marking and Inspection Documents

The packaging, marking and inspection documents of steel sheets and strips shall comply with the provisions of Q/BQB 300.

10 Rules for Rounding-off Values

Numerical values are determined by comparing the rounded values. The rounding-off of values shall comply with the provisions of GB/T 8170.

11 Appendix

The comparison table of similar designations between this Document and relevant standards is shown in Appendix A (informative).

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