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

GB/T 13288.2-2011

Replacing GB/T 13288-1991

**Preparation of steel substrates before application of paints and related products --
Surface roughness characteristics of blast-cleaned substrates -- Part 2: Method for the
grading of surface profile of abrasive blast-cleaned steel -- Comparator procedure**

涂覆涂料前钢材表面处理 喷射清理后的钢材表面粗糙度特性 第2部分：磨料喷射
清理后钢材表面粗糙度等级的测定方法 比较样块法

(English Translation)

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Foreword

GB/T 13288 "Surface coating of steel before coating The surface roughness characteristics of steel after jet cleaning are divided into the following parts.

- Part 1. Technical requirements for assessing ISO surface roughness comparison of sample surface roughness after jet cleaning definition;
- Part 2. Determination of surface roughness grade of steel after abrasive jet cleaning - Comparison of sample method;
- Part 3. ISO surface roughness comparison - Sample calibration and determination of surface roughness - Microscope focusing method;
- Part 4. ISO surface roughness comparison - Sample calibration and determination of surface roughness - Method of stylus method;
- Part 5. Determination of surface roughness - Copying method.

This part is part 2 of GB/T 13288.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part of the replacement GB/T 13288-1991 "before the steel surface roughness grade assessment (comparison sample method)". This part with GB/T 13288-1991 compared to the main technical changes are as follows.

- modify the normative reference file to refer directly to the ISO standard;
- Added chapters such as "terms and definitions", "principles", "instruments" (see Chapters 3, 4 and 5);
- modified the "Test Report" chapter (see Chapter 8, Chapter 6 of 1991).

This part uses the translation method equivalent to ISO 8503-2. 1988 "coating the surface of the steel before the steel surface of the sprayed steel surface Roughness characteristics - Part 2. Comparison method for the determination of surface roughness grade of steel after abrasive jet cleaning.

In this part of the normative reference to the international documents have a consistent correspondence between the following documents.

--- GB/T 5206 (all parts) Paint and varnish vocabulary [ISO 4618 (all parts)];

GB/T 8923.1-2011 Visual evaluation of surface cleanliness of steel surface before coating of coatings - Part 1. Uncoated Overcoat steel surface and the full removal of the original coating after the steel surface corrosion grade and treatment level (ISO 8501-1.

2007, IDT);

GB/T 13288.1-2008 Surface treatment of steel before coating Surface roughness characteristics of steel after jet cleaning Part 1. Technical requirements and definitions for ISO surface roughness comparison samples for assessing surface roughness of steel after jet cleaning (ISO 8503-1. 1988, IDT);

GB/T 13288.3-2009 Surface Treatment of Coatings before Coatings Surface roughness characteristics of steel after jet cleaning 3 parts. ISO surface roughness comparison sample block calibration and surface roughness measurement method Microscope focusing method (ISO 8503-3. 1988, IDT);

GB/T 18839.2-2002 Surface treatment of steel before coating Surface treatment method Abrasive jet cleaning (eqvISO 8504-2..2000).

This part is made by China Shipbuilding Industry Corporation.

This section is prepared by the National Coatings and Pigments Standardization Technical Committee (PAC/TC5/SC6).

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Introduction

Regardless of what kind of abrasive and cleaning methods used in the surface treatment of steel, it is possible to form the surface of the steel after jet cleaning.

Up to the irregularities of the crests and troughs. Due to this irregularity, resulting in the accuracy of the surface roughness can not be measured. because in this case, the roughness profile is proposed to be divided into recessed form (cleaned with pellet abrasive) and pointed (with sand abrasive cleaning), and the roughness Divided into "fine", "medium" and "thick" three, each grade definition see GB/T 13288.1 provisions. These surface features are considered to be given Most of the coating features are sufficient. Enough to meet most of the coating requirements.

It is particularly noteworthy that the "fine", "medium" and "coarse" grades represent different ranges of roughness characteristics, depending on the spray cleaning surface is the abrasive or abrasive.

Thus, the effects of the "fine", "medium" and "coarse" grades on the coating can be achieved not only by special surface features but also ("Fine", "medium" and "thick") and the type of abrasive used.

This test method requires the following details. These contents shall comply with ISO 8501, ISO 8503 and ISO 8504 parts Similar to the provisions of the standard, or the terms of the parties concerned.

- a) the time and position of the grade assessment, ie assessing the frequency at which jet cleaning occurs and the distance between the assessment points;
- b) the type of abrasive used for jet cleaning, i.e., pellet abrasive or grit abrasive or a mixture of both;
- c) the roughness level required for the jet cleaning surface (see note), "fine", "medium" or "thick", and the surface rust before jetting (See ISO 8501-1);
- d) If necessary, compare the type of sample block, ie compare sample block G or compare sample block S.

Note: The corrosion grade of the steel indicates the "original" roughness of the steel surface, which will affect the roughness of the surface after cleaning. The "second" roughness is the jet the roughness formed on the basis of the "original" roughness during the cleaning process is exactly what the "second" roughness is required to use the reference comparison sample for evaluation the roughness.

Due to mechanical or flame cutting, drilling and other reasons caused by the sharp edges are not in the "original" roughness within the range, before the abrasive jet cleaning should be worn away.

Surface treatment of steel before coating Surface roughness characteristics of steel after jet cleaning Part 2. abrasive spray after cleaning steel Comparison of surface roughness grades

1 Scope

This part of GB/T 13288 specifies the surface roughness rating visual and touch rating, using any of the provisions of ISO 8504-2 the surface roughness of steel produced by abrasive cleaning shall be assessed in accordance with the provisions of this part.

The method uses ISO surface roughness comparison sample, in the field to assess the coating before the abrasive jet cleaning steel surface rough Roughness.

Note: The ISO surface roughness comparison sample can also be used to assess the surface

roughness of other substrates after abrasive jet cleaning, and is not limited to the determination of coating coatings Front surface.

The method is applicable to the surface of the steel which is cleaned by pellets or grit abrasive, and the sprayed appearance of the whole surface is Sa21/2 and Sa3 in ISO 8501-1.

This method is applicable to surfaces cleaned by metal or nonmetallic abrasives.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

ISO 4618 Paints and Varnishes Terms and Definitions

(Paintsandvarnished-Termsanddefinitions) ISO 8501-1 Specimen for steel surface treatment before coating - Visual assessment of surface cleanliness - Part 1. Uncoated steel sheet Surface and complete removal of the original coating after the steel surface corrosion level and treatment level (Preparation ofsteelsubstratesbefore applicationofpaintsandrelatedproducts-Visualassessmentofsurfacecleanliness-Part 1. Rust gradesandpreparationgradesofuncoatedsteelsubstratesandofsteelsubstratesafteroverallremoval ofpreviouscoatings ISO 8503-1 Surface coating of steel before coating - Surface roughness characteristics of steel after jet cleaning - Part 1.

The technical requirements and definitions of the ISO surface roughness of the surface roughness of the steel after the fixed jet cleaning (Preparation ofsteel Substratebeforeapplicationofpaintsandrelatedproducts-Surface roughness characteristicsof blast-cleanedsteelsubstrates-Part 1. SpecificationsanddefinitionsforISO surfaceprofilecomparatorsfor theassessmentofabrasiveblast-cleanedsurfaces ISO 8503-3 Surface coating of steel before coating - Surface roughness characteristics of steel after jet cleaning - Part 3. ISO table Surface roughness comparison of the sample block calibration and surface roughness of the method of microscopy focus method (Preparationofsteelsubstrates beforeapplicationofpaintsandrelatedproducts-Surface roughness characteristicsofblast-cleaned steelsubstrates-Part 3. MethodforthecalibrationofISO surfaceprofilecomparatorsandforthede-terminationofsurfaceprofile-Focusingmicroscopeprocedure ISO 8503-4 Steel surface treatment before coating - Surface roughness characteristics of steel after jet cleaning - Part 4. ISO table Comparison of surface roughness comparison sample and method for determination of surface roughness Method of preparation method (Preparation ofsteelsubstratesbefore