

ICS 77.140.50

CCS H 46



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

GB/T 43109-2023

Stainless clad plate for ships and ocean engineering

船舶及海洋工程用不锈钢复合钢板

Issued on: September 7, 2023

Implemented on: April 1, 2024

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents" Drafting. Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents. This document is proposed by the China Iron and Steel Industry Association. This document is under the jurisdiction of the National Steel Standardization Technical Committee (SAC/TC183). This document was drafted by: Nanjing Iron and Steel Co., Ltd., Metallurgical Industry Information Standards Research Institute, Zhangjiagang Hongchang Steel Plate Co., Ltd., Hu Nan Valin Xiangtan Steel Co., Ltd., Wuhan University of Science and Technology, Qingdao Gangyan Nake Detection and Protection Technology Co., Ltd., CNOOC (Tianjin) Pipeline Works Cheng Technology Co., Ltd. and China Merchants Jinling Dingheng Shipbuilding (Yangzhou) Co., Ltd. The main drafters of this document. Wang Guanglei, Zeng Zhouxuan, Sun Menghan, Li Xiaobo, Yang Jianhua, Wu Kaiming, Yang Zhaohui, Liu Haichao, Zhang Fuwei, Dang Jun, Yin Zhijun, Zhang Weixu, Zhou Ziyue, Luo Deng, Hou Tingping, Yang Haiyang, Xu Junfeng, Tian Zijian, Jin Lei, Li Qian. Stainless steel composite steel plates for shipbuilding and offshore engineering

1 Scope

China's national standard for stainless clad plate used in shipbuilding and offshore engineering. It specifies the order content, the classification and marking, the dimensions and the requirements. Clad plate is a structural steel backing with a stainless layer metallurgically bonded to one face, usually by roll bonding or explosive welding, and it exists because the two requirements it satisfies are otherwise met by paying for the wrong thing. A chemical tanker's cargo tank, a scrubber, a ballast tank in an aggressive service or an offshore splash zone needs a corrosion resistant surface and structural thickness; making the whole plate stainless would cost several times as much and would not be stronger. The cladding is typically three millimetres on twenty of carbon steel. What the

standard has to guarantee is the bond - a clad plate whose layers separate is worse than either material alone, and the bond is what shear testing and ultrasonic inspection are there to verify.

This document specifies the ordering content, classification and marking, size, shape, weight, technology of stainless steel composite steel plates for ships and offshore engineering Requirements, test methods, inspection rules, packaging, marking and quality certificates. This document is applicable to ships and marine engineering products with a total thickness of not less than 5.0mm produced by rolling cladding or explosive cladding. Stainless steel composite steel plate (hereinafter referred to as "composite steel plate").

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations For undated referenced documents, only the latest version (including all amendments) applies to this document. document.

GB/T 247 General provisions for packaging, marking and quality certificates of steel plates and steel strips

GB/T 709-2019 Dimensions, shapes, weights and tolerances of hot-rolled steel plates and strips

GB/T 712 Structural steel for ships and offshore engineering

GB/T 2975 Sampling location and sample preparation for mechanical property testing of steel and steel products

GB/T 4237 Stainless steel hot-rolled steel plates and strips

GB/T 4334 Corrosion of metals and alloys Test methods for intergranular corrosion of austenitic and ferritic-austenitic (duplex) stainless steels

GB/T 6396 Test methods for mechanical and process properties of composite steel plates

GB/T 17897 Corrosion of metals and alloys Test method for pitting corrosion of stainless steel ferric chloride NB/T 47013.3 Non-destructive testing of pressure equipment Part

3.Ultrasonic testing NB/T 47013.5 Non-destructive testing of pressure equipment Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 claddingmetal Stainless steel in composite steel plates that comes into contact with working media or marine environment.

Note. It is also commonly called cladding.

3.2 Base materialbasemetal Composite steel plates are mainly used in ships and marine engineering to bear structural strength.

Note. Often also called the base layer.

3.3 The joint surface between the composite steel plate cladding material (3.1) and the base material (3.2).

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