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

**GB/T 554-2023**

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**Ships and marine technology - Ship's mooring and towing  
fittings - Welded steel bollards for sea-going vessels**

船舶和海上技术 船舶系泊和拖带设备 海船用钢质焊接带缆桩

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## Foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents" drafting: This document replaces GB/T 554-2008 "Cable Bollard": Compared with GB/T 554-2008, except for structural adjustment and editorial changes, the main The technical changes are as follows:

--- Increase the terms and definitions of "safe working load" and "towing safe working load" (see 3:1, 3:2);

---Delete the original standard B-type embedded cable pile, D-type double "ten" screw-fixed cable pile and DH type double "ten" welding Connect fixed cable piles (see Table 1, Figure 2, Table 3, Figure 4, Figure 5, Table 5 of the:2008 edition);

---Change the standard type A "ordinary cable pile" to type A "compact base cable pile", change the standard type C "simple cable pile" to type B "Wide base cable pile", change the nominal diameter range and schematic diagram of the cable pile (see Table 1, Table 1 of the:2008 edition);

---Change the structure type and basic dimensions of type A "compact base with cable pile" and type B "wide base with cable pile" (see Figure 1, Table 2, Table 3, Figure 2, Table 4, Table 5, Figure 1, Table 2, Figure 2, Table 3 of the:2008 edition);

--- Increase the type and size of the cable pile baffle (see Figure 1, Table 2, Table 3, Figure 2, Table 4, Table 5);

---Delete the material of sealing plate, horizontal pipe and reinforcement plate, and increase the material of eye ring and baffle (see Table 6, Table 6 of the:2008 edition);

--- Increase the model representation method (see 4:2);

- Delete the type and size of the baffle installed with bollards (see 4:2:3 of the:2008 edition);
- Change the specifications of seamless steel pipes for piles with cable piles (see Table 7, Table 7 of the:2008 edition);
- Increase the material requirements of "Materials can be put into production after passing the inspection" (see 5:1:1), delete the material test method (see the:2008 edition 5:1);
- Change the requirements for stainless steel cladding of cable piles (see 5:1:2, 4:1:2 of the:2008 edition);
- Add "SWL or TOW mark" requirements and inspection methods (see 5:7, 6:6);
- Change "Appendix A (Normative) Design calculation load state and allowable stress of cable piles" to "Appendix A (Normative) Steel welded strip Cable bollard strength assessment" (see Appendix A, Appendix A of the:2008 edition): This document refers to ISO 13795:2020 "Mooring and towing equipment for ships and offshore technical ships - steel welded cable piles for sea-going ships" Drafted, the degree of consistency is "non-equivalent": Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents: This document is proposed and managed by the National Ship Outfitting Standardization Technical Committee (SAC/TC129): This document is drafted by: Jiangnan Shipbuilding (Group) Co., Ltd.; China Shipbuilding and Ocean Engineering Design and Research Institute: The main drafters of this document: Tao Dongming, Sang Wei, Wang Yun, Sun Jiaxiu, Qian Qiang: The previous versions of the standards replaced by this document are as follows:

## 1 Scope

GB/T 554-2023 specifies welded steel bollards for seagoing ships. The bollard is what a mooring or tow line is made fast to, and it is one of the few fittings whose failure kills people directly: a line under tens of tonnes of tension that parts, or a bollard that tears out of the deck, releases that energy across the mooring station. What matters is therefore not the bollard alone but the strength assessment of the bollard together with its deck seat and the surrounding structure. The standard sets the classification and designation, the requirements, the test methods, the inspection rules and the marking, transport and storage provisions, with a normative annex on the strength assessment of the welded steel bollard. It replaces GB/T 554-2008 and took effect on 1 December 2023.

This document specifies the classification, marking, requirements, test methods, inspection rules, and standards for steel welded cable piles (abbreviated as cable piles) marking, transportation and storage: This document is applicable to the design, manufacture and inspection of cable bollards for sea-going ships:

## 2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document:

GB/T 699-2015 High-quality carbon structural steel

GB/T 700-2006 carbon structural steel

GB/T 712-2011 Structural steel for ships and marine engineering

GB/T 8162-2018 Structural seamless steel tubes

GB/T 8923:1-2011 Visual assessment of surface cleanliness of steel surface treatment before coating - Part 1: Uncoated The rust level and treatment level of the steel surface and the steel surface after the original coating has been completely removed

GB/T 17395-2008 seamless steel pipe size, shape, weight and tolerance CB/T 3155-2013 Auxiliary cables with cables equipment)

## 3 Terms and Definitions

The following terms and definitions apply to this document: 3:1 safe working load safe working load; SWL Limit safe load (maximum permissible load) for mooring outfitting: 3:

2 The ultimate safe load (maximum permissible load) for mooring outfitting for normal and other towing operations:

## 4 Classification and labeling

1 Classification and labeling 4:1:

1 See Table 1 for the classification of cable piles: