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

GB/T 12522-2009

Replacing GB/T 12522-1996

Stainless steel bellows expansion joints

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Foreword

This standard corresponds to US expansion joint Manufacturers Association (EJMA) standard (StandardsoftheExpansionJointManufactur- ersAssociation) 2003 8th edition, equivalent to the degree of non-conformity EJMA standards. This standard replaces GB/T 12522-1996 "stainless steel bellows expansion joints." This standard compared with GB/T 12522-1996, the main changes are as follows:

- Increased JIS flange dimensions of the series;
- Nominal size expanded to DN3200 in the original standard basis;
- Increasing the terms and definitions, expansion joints operating temperature;
- Type II increased and the associated requirements;
- Increasing the expansion joint bellows material grades;
- Adjust the number of trials fatigue test requirements;
- Revised GB/T 12522-1996 Appendix A of part of the design formulas. Appendix A of this standard and Appendix B is an informative annex. The standard proposed by China State Shipbuilding Corporation. This standard by the National Marine Machinery Standardization Technical Committee Piping Accessories Technical Committee (SAC/TC137/SC3) centralized. This standard was drafted. Wuxi Jinbo isolation Technology Co., Ltd. (Wuxi City Bellows plant), China Shipbuilding Technology and Economy Institute Study hospital. The main drafters of this standard. Gupei Kun, Chinese music, Gu Yinfeng, Xuyao \u200b\u200bMing, Herui Yu, Luo Yuan hair, Sun Jingming. This standard replaces the standards previously issued as follows:
- GB 12522-1990, GB/T 12522-1996. Stainless steel bellows expansion joints

1 Scope

GB/T 12522-2009 is the Chinese national standard on stainless steel bellows expansion joints, in the field of shipbuilding and marine structures. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 9 March 2009 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 November 2009. Classification: ICS 47.020.30, CCS U55. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the dimensions and sealing surface of the flange connection according to GB/T 569, ISO 7005-1 (PN series) and Class J flange (JISB2220, JISF7805) stainless steel bellows expansion joints (hereinafter referred to as expansion joint) terms and definitions, classifications and marks, requirements, test methods, inspection Rules, marking, packaging, transportation and storage. This standard applies to the internal combustion engine such as exhaust pipe expansion joint design, manufacture and acceptance.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 191 Packaging - Pictorial signs (GB/T 191-2008, ISO 780.1997, MOD)

GB/T 569 Marine flange connection dimensions and sealing surface

GB/T 699-1999 quality carbon structural steel

GB/T 700-2006 carbon structural steel (

ISO 630.1995, Structuralsteels-Plates, wideflats, bars, sections andprofiles, NEQ)

GB/T 1800.3-1998 Limits and fits basis Part 3. Standard deviation tolerances and basic value table (eqv ISO 286-1. 1988)

GB/T 1800.4-1999 Limits and fits standard tolerance grades and limit deviations for holes and shafts of (eqv ISO 286-2. 1988)

GB/T 3280-2007 cold-rolled stainless steel sheet and strip

GB/T 4237-2007 hot-rolled stainless steel sheet and strip

GB/T 6388 transport package shipping mark

GB/T 9711.1-1997 oil and natural gas industries - Steel pipe Technical delivery conditions - Part 1. A grade steel (eqv ISO 3183-1.1996)

GB/T 12777-2008 metal bellows expansion joint general technical conditions

GB/T 14996-1994 high-temperature alloy cold-rolled sheet

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Single-type expansion joints singleexpansionjoint It consists of a bellows and conduit and other structural parts consisting mainly used to absorb axial displacement and can not withstand the pressure thrust of the bellows expansion joints (See Figure 1).