ICS 47.020.20
CCS U 48

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 14653-2025

Replacing GB/T 14653-2008

Flexible link coupling

挠性杆联轴器

Issued on: June 30, 2025 **Implemented on: January 1, 2026**

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

Table of Contents

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 14653-2008 "Flexible Rod Couplings". Compared with GB/T 14653-2008, except for the structural adjustment and editing In addition to the functional changes, the main technical changes are as follows.

a) The permissible ambient temperature of the applicable objects of this document has been changed (see Chapter 1, 4.7 of the 2008 edition);

b) Added the definitions of static torsional stiffness and bending stiffness (see 3.2 and 3.3);

c) Deleted the permissible ambient temperature (see 4.7 of the 2008 edition);

d) Modified some basic parameter data in Tables 1 to 4 (see 5.2, 4.3 of the 2008 edition);

e) Added weight requirements (see 6.3);

f) Added specific quality requirements for main parts after heat treatment (see 6.4.2);

g) The static torsional stiffness performance requirements have been changed (see 6.5.1, 5.4 of the 2008 edition);

h) Changed the dynamic balancing performance requirements (see 6.5.2, 5.5 of the 2008 edition);

i) The roughness test method has been changed (see 7.1.2, 6.1.2 of the 2008 edition);

j) Added weight test method (see 7.3);

k) The static torsional stiffness test method has been changed (see 7.5.1, 6.4 of the 2008

edition);

l) The dynamic balancing test method has been changed (see 7.5.2, 6.5 of the 2008 edition);

m) Added marking requirements (see 9.1).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed and coordinated by the National Technical Committee for Standardization of Marine Machinery (SAC/TC137).

This document was drafted by: Chongqing Gearbox Co., Ltd. and China Shipbuilding Industry Corporation Comprehensive Technical and Economic Research Institute.

The main drafters of this document are: Huang Xiaokang, Qi Chao, Wang Youbing, Liu Gang, Qin Jinlong, Ma Qiang, Li Qianqian, and Qian Kejiang.

This document was first issued in 1993, revised for the first time in 2008, and this is the second revision. Flexible rod coupling

1 Scope

This document provides the classification and marking, structure and parameters of flexible rod couplings (hereinafter referred to as couplings), and specifies the technical requirements of couplings.

Requirements, inspection rules, marking, packaging, transportation and storage, and describes the corresponding test methods.

This document is applicable to the case where the two connected shafts require angular offset compensation and/or axial offset compensation, and the allowable ambient temperature is -30°C~120°C Design, manufacture and inspection of couplings.

2 Normative references

GB/T 191

GB/T 699-2015

GB/T 1804-2000

GB/T 3077-2015

GB/T 3098.1-2010

GB/T 9239.1-2006

GB/T 15822.1

GB/T 15822.2

GB/T 15822.3

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 axialstiffness

CX The force required to produce a unit deformation of the two coupling halves in the axial direction.

3.2 Cs

The torsional stiffness of a coupling under static load.

3.3 bending stiffness

Cb The ability of a coupling to resist bending deformation when subjected to bending stress.