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

GB/T 35147-2017

**Petroleum and natural gas industries -- Flexible couplings for
mechanical power transmission -- General purpose
applications**

石油天然气工业 机械动力传输挠性联轴器 一般用途

(English Translation)

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses redrafted law revision using ISO 14691:2008 "oil and gas industrial machinery flexible transmission flexible coupling General purpose".

This standard and ISO 14691:2008 technical differences and the reasons are as follows.

--- Compared with the first chapter of ISO 14691-2008, the order of the second and third paragraphs in Chapter 1 is changed;

--- On normative references, this standard made a technical difference with the adjustment to adapt to China's technical conditions, adjust the situation Concentration reflected in the second chapter "Normative references", the specific adjustments are as follows.

- Replacing ISO 286-2 (see 8.3.5) with modifications to International Standard GB/T 1800.2;
- Replace ISO 1940-1 with GB/T 9239.1 equivalent to international standards (see 9.2.1, Appendix B);
- Replace ISO 8821 with GB/T 16908 equivalent to international standards (see 9.3.2);
- Increased reference to GB/T 3852 (see 8.3.5, 8.3.6);
- increase the reference GB/T 15755 (see 8.3.7).

--- In ISO 14691:2008, 3.1 and 3.2 are combined into a noun term;

--- 8.3.6 in the taper "1.16" changed to "1.10" to meet the standards of our country;

--- 8.3.7 taper "1.24" changed to "1.10" to meet the standards of our country.

This standard made the following editorial changes.

--- Remove the ISO 14691:2008 Annex E data in Table E.2 coupling data sheet (American

Standard).

This standard by the National Petroleum Drilling Equipment and Tools Standardization Technical Committee (SAC/TC96) and centralized.

This standard was drafted unit. Baoji Petroleum Machinery Co., Ltd., gem machinery Chengdu equipment manufacturing branch, Sichuan Honghua Petroleum Equipment Co., Ltd., China National Petroleum West Drilling Engineering Co., Ltd., Shengli Oilfield Plateau Petroleum Equipment Co., Ltd., Baoji City, double-Hongye Press Machinery Co., Ltd., Shaanxi Provincial Institute of Standardization.

1 Scope

This standard specifies the general purpose of the transmission of power coupling between the rotating shaft of two machines in the oil, petrochemical and natural gas industries. This Application Usually refers to the coupling in the case of not more than 4000r/min transmission of power, two machines (rigid shaft machine) between the first order transverse vibration Moving critical speed higher than the operating speed range. If agreement is reached, the application beyond the above limits may apply.

This standard covers the design of couplings, materials, inspection, testing, and methods of connecting the drive shaft (including tapered sleeve and other special equipment Set).

This standard applies to the coupling device used to adjust the lateral offset, angular deviation and axial displacement, without the need to apply an additional mechanical load coupling Device. Couplings covered by this standard include gear couplings (and other mechanical contact type couplings), metal flexible couplings and Elastic element coupling. The above couplings may be a unitary piece of metal or may contain non-metallic material components, such as composite materials.

This standard does not apply to special types of coupling, such as clutch, hydraulic, eddy current, fixed and radial spline coupling.

This standard does not define the selection of coupling special applications.

Note: The manufacturer's catalog conforms to the standard requirements for couplings.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 1800.2 Geometrical Product Specifications (GPS) Limits and Matching Part 2. Standard Tolerance Levels and Bore and Shaft Limit Deviation Bad table (GB/T 1800.2-2009, ISO 286-2:1988, MOD) GB/T 3852 shaft coupling and coupling type and size

GB/T 9239.1 mechanical vibration constant (rigid) rotor balance quality requirements - Part 1. Specification and balance of tolerance test (GB/T 9239.1-2006, ISO 1940-1:2003, IDT)
GB/T 15755 Conical interference with the calculation and selection GB/T 16908 mechanical vibration axis and the balance of the key with the bond criteria (GB/T 16908-1997, idt ISO 8821.1989)

3 Terms and definitions

The following terms and definitions apply to this document.

Angular deviation angular misalignment (Double contact coupling) two small axes between the extension line of the machine axis and the center line of the connecting structure of the two flexible elements Angle.

(Single-contact coupling) A small angle between two machine extension lines.

Axial displacement the relative axial position usually caused by thermal expansion at the adjacent shaft ends of the two coupling machines varies.