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

GB/T 37400.10-2019

**Heavy machinery general technical specification - Part 10:
Assembling**

重型机械通用技术条件 第10部分：装配

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Foreword

GB/T 37400 "General Technical Conditions for Heavy Machinery" is divided into 16 parts.

- Part 1. Product inspection;
- Part 2. Flame cutting parts;
- Part 3. Welded parts;
- Part 4. Cast iron parts;
- Part 5. Non-ferrous metal castings;
- Part 6. Steel castings;
- Part 7. Repair welding of steel castings;
- Part 8. Forgings;
- Part 9. Machining parts;
- Part 10. Assembly;
- Part 11. piping;
- Part 12. Painting;
- Part 13. Packaging;

1 Scope

Part 10 of China's general technical specification for heavy machinery, covering assembly. It specifies the general requirements for assembling heavy machinery products, the geometric tolerances of assembled components and the requirements for assembly connections. Assembling a heavy machine is not the same activity as assembling a manufactured product, and the standard is written for the difference. The parts are too large to be jiggered: alignment is established by measurement, with optical or laser instruments, against datums established on the foundation. The tolerances that matter are not on the

individual parts but on their relationship after assembly - the parallelism of two rolls, the alignment of a shaft line across several bearings, the flatness of a bed. And much of it is done on site, where the foundation is still settling and the temperature changes through the day, which is why the standard has to say when a measurement is valid as well as what it must show.

This part of GB/T 37400 specifies the general requirements for the assembly of heavy machinery products, the geometric tolerances of the assembled components, and the assembly connections. General technical requirements for methods, typical component assembly, final assembly, inspection and commissioning, disassembly. This section applies to the assembly of heavy machinery products.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 9239.1-2006 Mechanical vibration constant (rigid) rotor balance quality requirements Part 1. Specification and balance tolerance test

GB/T 37400.3 General technical requirements for heavy machinery - Part 3. Welding parts

GB/T 37400.9 General technical requirements for heavy machinery - Part 9

GB/T 37400.11 General technical requirements for heavy machinery - Part 11. General technical requirements for

JB/T 6996 heavy machinery hydraulic system

JB/T 7929 gear transmission cleanliness

3 General requirements for assembly

3.1 Parts and components that enter the assembly (including purchased parts and external parts) shall have the certificate of the inspection department for assembly.

3.2 Parts should be cleaned and cleaned before assembly, without burrs, flash, scale, rust, chips, oil, colorants, rust preventive oil and Dust, etc.

3.3 Before assembly, the main matching dimensions of the parts and components, especially the interference fit size and related accuracy, should be reviewed. Trimmed by fitter The size of the fit should be reviewed by the inspection department.

3.4 The mechanical processing in the assembly process shall comply with the relevant provisions of GB/T 37400.9; the welding procedure shall comply with GB/T 37400.3 Relevant regulations.

3.5 In addition to special requirements, the sharp corners and sharp edges of the parts should be blunt before assembly.

3.6 Parts are not allowed to bump, scratch and rust during assembly.

3.7 The hole of the conveying medium should be checked by lighting or ventilation method.

3.8 Primers and topcoats should be applied first after assembly. Parts and parts that are not dry may not be assembled.

3.9 The basic parts of the machine, the fuselage, etc., should be level (or vertical) when assembled. Correction accuracy, for machines with simple structure and low precision The machine is not less than 0.1mm/m; the machine with complicated structure and high precision is not less than 0.05mm/m.

3.10 Zero with relative motion, each lubricating point on the component should be filled with appropriate amount of lubricating oil (or grease) after assembly.

4 Geometric tolerances of the assembled parts

4.1 This geometric tolerance refers to the unfilled geometric tolerance of the measured component of the assembled component. The main parameter is $L \leq 1000\text{mm}$. See Table 1, main parameters.