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

GB/T 37400.9-2019

**Heavy machinery general technical specification - Part 9:
Machined parts**

重型机械通用技术条件 第9部分：切削加工件

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1 Scope

Part 9 of China's general technical specification for heavy machinery, covering machined parts. It specifies the general requirements and the tolerances that apply where none is stated on the drawing - the general tolerances for dimensions, the symmetry of keyways, and the position of screw holes and bored holes. That is the whole point of the part. A drawing cannot carry a tolerance on every feature, and what happens to the ones left unmarked is either agreed in advance or argued about at inspection. For ordinary engineering the general tolerance standards cover it; for heavy machinery they do not, because a part several metres across cannot hold the same absolute tolerance as a part the size of a hand, and applying the general standard literally would demand accuracy nobody can achieve or pay for. This part supplies the general tolerances appropriate to the size and the duty, which is what lets a drawing office leave most dimensions unmarked and still be understood.

2 Parts are not marked round

2 Normative references

The following documents are indispensable for the application of this document. 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 3 common thread finish, shoulder distance, undercut and chamfer

GB/T 197-2003 ordinary thread tolerance

GB/T 1184-1996 Shape and position tolerances without tolerance values

GB/T 1804-2000 General tolerances and tolerances for linear and angular dimensions without tolerances

GB/T 5277 fastener bolts and screw through holes

3 General requirements

3.1 After processing the parts, the product drawings and technical documents and the requirements of this part should be met.

3.2 Parts should be inspected and accepted according to the process, and can be transferred to the next process after passing the previous process inspection.

3.3 When casting steel parts, cast iron parts, non-ferrous metal castings, forgings, if there are defects such as blisters, shrinkage holes, slag inclusions, cracks, etc., do not reduce zero Under the premise of strength and performance, it is allowed to be repaired in accordance with the relevant provisions of relevant standards, and processing can be continued after passing the inspection.

3.4 The processed parts are not allowed to have burrs. Except for the requirements of the product drawings, sharp edges and sharp corners are not allowed, and the sealing mating surfaces and stresses are involved. The chamfering and rounding dimensions of the concentrated area shall be clearly stated in the product drawings.

--- When the chamfer is not indicated in the part drawing, it should be chamfered according to the requirements of Figure 1 and Table 1. The chamfer of the non-rotating body parts is in accordance with Table 1. In the row, the main parameter D(d) takes the shorter of the two adjacent geometrical features of the chamfer. Description. D

---outer diameter; D

---inner diameter; C

---Chamfer height. Figure

1 Rotary body parts are not chamfered

5 Table

10 Keyway symmetry is not tolerated

6 Unfilled tolerances for straightness and flatness

4 Table 7. Verticality is not tolerated

8 Figure

1 Rotary body parts are not chamfered

13 No surface roughness 7

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;