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

GB/T 37400.3-2019

**Heavy machinery general technical specification - Part 3:
Welded parts**

重型机械通用技术条件 第3部分：焊接件

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Table of Contents

1 Scope	1
2 Normative references	1
3 General requirements	1
4 Initial correction of steel 2 5 cutting	3
6 Forming and bending of steel	3
7 Welding assembly 3 8 welding	5
18 Appendix C (informative) Technical requirements for welded parts	25

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 3 of China's general technical specification for heavy machinery, covering welded parts. It specifies the general requirements, the initial straightening of the steel, the cutting, the forming and bending, the weld assembly, the welding itself and the weld requirements.

This is the largest single activity in building a heavy machine: the frames, housings, drums, hoppers and structures are fabricated from plate, and the welding determines whether they hold. The sequence in the standard is the sequence of the work, and it matters that straightening comes first - plate arrives with rolling stresses and distortion, and a fabrication assembled from unstraightened material will move as it is welded and never come back. Distortion control runs through everything that follows: the order in which welds are made, the restraint applied, the preheat and the interpass temperature. On a structure metres across, a few millimetres of unplanned movement is the difference between a machine that assembles and one that does not.

This part of GB/T 37400 specifies the technical requirements, inspection methods and designation of steel welded parts. This section applies to the welding of steel welding parts for welding rod arc welding, gas shielded welding, submerged arc welding and argon arc welding in heavy machinery and parts. Manufacturing.

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 324 weld symbol notation

GB/T 985.1 Recommended groove for gas welding, electrode arc welding, gas shielded welding and high energy beam welding

GB/T 985.2 recommended groove for submerged arc welding

GB/T 3323 metal fusion welding joints radiography

GB/T 6417.1 metal fusion welding head defect classification and description

GB/T 11345 weld non-destructive testing ultrasonic testing technology, testing level and evaluation

GB/T 18591 Welding preheating temperature, inter-channel temperature and preheating maintenance temperature measurement guide

GB/T 18851.1 Non-destructive testing - Penetration testing - Part 1. General

GB/T 19418 Steel Arc Welding Tip Defect Quality Grading Guide

GB/T 25712 vibration aging process parameter selection and effect evaluation method

GB/T 26951 weld non-destructive testing magnetic particle testing

GB/T 26952 weld non-destructive testing weld magnetic particle inspection acceptance level

GB/T 26953 weld non-destructive testing weld penetration inspection acceptance level

3 General requirements

3.1 The manufacture of welded parts shall be in accordance with the design drawings, technical documents and the provisions of this part.

3.2 The materials, specifications and dimensions of the raw materials used for the manufacture of welded parts shall comply with the requirements of the design drawings. Proxy procedures.

3.3 When the raw materials and welding materials used for the manufacture of welded parts enter the factory, they shall comply with the "Incoming Rules for the Acceptance of Raw Materials in the Factory", and the quality inspection department shall