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

GB/T 22085.1-2008

**Electron and laser beam welded joints -- Guidance on quality
levels for imperfections -- Part 1: Steel**

电子束及激光焊接接头 缺欠质量分级指南 第1部分：钢
(English Translation)

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Foreword

GB/T 22085 "electron beam and laser welding joint quality levels for imperfection" is divided into two parts.

--- Part 1. Steel;

--- Part 2. Aluminium and its alloys.

This section GB/T 22085 Part 1.

This part identical with ISO 13919-1:1996 "electron beam welding and laser welded joints quality levels for imperfection Part 1 Score. Steel "(in English).

This section is equivalent translation ISO 13919-1:1996. For ease of use, this section made the following editorial changes.

--- Deleted international standards foreword;

--- The standard name be changed to "electron beam and laser welding joint quality levels for imperfections - Part 1. Steel";

--- Of ISO 13919-1:1996 and other international standards referenced, there is tantamount to the adoption of a standard for the use of standards in place Corresponding to international standards;

--- The ISO 13919-1:1996 in the "Description" incorporated in Appendix A.

Appendix A of this section is an informative annex.

This part of the National Standardization Technical Committee welded and centralized.

This section is drafted. Harbin Welding Institute.

1 Part, quality levels for imperfection. Steel

1 Scope

This section GB/T 22085 specifies the defect electron beam and laser quality steel welded joint classification.

This section applies to a thickness of 0.5mm or more steel.

2 Normative references

The following documents contain provisions which, through reference GB/T 22085 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 6417.1-2005 metal fusion welding head defect classification and description (ISO 6520-1:1998, IDT) GB/T 19418-2003 steel welding joint quality levels for imperfections (ISO 5817:1992, IDT)

3 Symbol

Table 1 using the following symbols.

Distance ΔL --- two shortcomings (porosity, shrinkage) between;

Chou --- weld width;

L --- length of weld examined;

L_c --- affected by the combination of porosity weld length;

Ju --- weld penetration;

Ju 1 --- T-joint weld penetration;

4 Weld Assessment

Table 1 specifies the limits and shortcomings.

A welded joint should normally be evaluated separately for the various types of imperfections. If different types of imperfections appear in the same cross-section on the need to make special assessments.

Table 1 imperfections and limits

Imperfections

name

GB/T

6417.1

Code

Explanation

Defect quality level limits General strict B C D Medium 1 100 crack in addition to
micro-cracks (crack length and width of less than 1mm) all cracks outside the crater cracks
See No. 2 not allowed not allowed not allowed GB/T 22085.1-2008/ISO 13919-1:1996