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

GB/T 13165-2010

Replacing GB/T 13165-1991

**Methods of measurement on noise emitted by arc welding
machine**

电弧焊机噪声测定方法

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Foreword

The revised standard and replaces GB/T 13165-1991 "arc welder noise measurement method." This standard compared with GB/T 13165-1991 main changes are as follows:

--- To increase and reference standard has been modified.

--- Make editorial changes. Appendix A of this standard is a normative appendix. The standard proposed by China Electrical Equipment Industrial Association. This standard by the National Standardization Technical Committee Welder (SAC/TC70) centralized. This standard was drafted. Shenzhen Ruiling Industrial Co., Ltd., Zhejiang Kende Mechanical & Electrical Co., Ltd., Shenzhen Science and Technology Development Christie Exhibition Co., Ltd., Chengdu tripartite Electric Co., Ltd., Kai Erda Group Limited. The main drafters of this standard. Qiu light, Zhuxuan Hui, Pan Lei, Wang Shikai, Xie Gang, Xiao Bo, Wang Wei. This standard replaces the standards previously issued as follows:

--- GB/T 13165-1991. Arc welder noise measurement method

1 Scope

GB/T 13165-2010 is the Chinese national standard on methods of measurement on noise emitted by arc welding machine, in the field of manufacturing engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 10 November 2010 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 May 2011. Classification: ICS 25.160.30, CCS J64. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the determination of the sound source A [weighted] sound power level of simple method, ie measuring the sound source A [weighted] sound level at a predetermined measurement point, Then calculates that A [weighted] sound power level. The method is particularly suitable for on-site measurements, of having to be moved to special acoustic sound source under test Within the environment. This standard applies to all kinds of general arc welding (hereinafter referred to as sound source) radiated broadband, narrowband, discrete frequency stationary noise. except Repetition rate of less than 5 per second bursts of sound, but also applies to non-stationary noise sources. The measured volume of the sound source without restriction for oversize The sound source should be selected that part of the main sources of noise measurements. For other types of welding noise measurement equipment, may refer to this standard.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 2900.22 Electrotechnical terminology Welder

GB 3102.7 Quantities and units of acoustics

GB/T 3785 sound level meter electric, acoustic performance and test methods

GB/T 3947 Acoustics Terminology JJG176 acoustic calibrator verification procedures

JJG188 sound level meter verification procedures JJG277 test specification standard sound source

3 Terms and Definitions

Terms and definitions GB/T 2900.22 and GB/T 3947 established apply to this standard.

4 Quantities and Units

Quantities and units used in this standard in line with the provisions of GB 3102.7.

5 Measurement error

This standard specifies the method for measuring the sound source A [weighted] sound power level of error.

a) for the spectral density of radiation uniform noise source with a standard deviation of not more than 4dB;

- b) For a discrete radiation source frequency noise, its standard deviation is less than 5dB;
- c) in the same test environment when the noise source of the same type and size is compared with a standard deviation of not more than 3dB.

Note. here refers to the standard deviation of measurement error caused by various factors accumulated.

6 Acoustic testing environment

6.1 Test Environment An ideal test environment should be in addition to a reflecting surface (ground) no other reflective objects, namely the free sound source directly to the reflecting surface Field radiation. Tests required for this environment.