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

中华人民共和国国家标准

GB 20800.1-2006

**General rules of explosion-protect techniques of
reciprocating internal combustion engines for
explosive atmospheres –**

**Part 1: Group II engines for use in flammable gas and
vapor atmospheres**

爆炸性环境用往复式内燃机防爆技术通则

第 1 部分:可燃性气体和蒸汽环境用Ⅱ类内燃机

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China**

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Foreword

All the technical contents in this standard are mandatory.

Under the general title of the Standard GB 20800 *General Rules of Explosion-Proof Techniques of Reciprocating Internal Combustion Engines for Explosive Atmospheres*, the following parts are contained:

Part 1: II type internal combustion engine for flammable gas and vapor;

Part 2: II type internal combustion engine is used for combustible dust environment;

Part 3: I type internal combustion engine is used for underground mining roadway where methane and (or) combustible dust exist.

This part is the Part 1 of GB 20800 *General Rules of Explosion-Proof Techniques of Reciprocating Internal Combustion Engines for Explosive Atmospheres*, the standard number: GB 20800.1-2006.

This part is developed in accordance with *Reciprocating Internal Combustion Engines - Safety Requirements for Design and Construction of Engines for Use in Potentially Explosive Environment- Part 1: Type II Internal Combustion Engines for Use in Combustible Gas and Vapor Environment* (English version) EN 1834-1:2000; in terms of technical contents, this standard is modified in relation to the technical requirements of EN 1834-1:2000 and re-drafted; in terms of the compiling format, this standard complies with the provisions of *Work Guideline for Standardization--Part 1: Rules for the Structure and Compiling* of GB/T1.1—2000 and the *Work Guideline for Standardization—Part 2: Adoption for International Standards* of GB/T 20000. 2—2001

When this part was modified in relation to EN 1834-1: 2000, considering the situation of China, it deleted the following contents: the preface, prologue and annex ZA; and the chapter “List of All Kinds of Dangers” was edited as informative annex A of this part. Such abridgment and modifications will not affect the use of the standard.

This part makes modifications to part of technical contents of EN 1834-1: 2000 according

to the specific inspection circumstance of explosion-proof electrical equipment of our country. The relevant technical differences of the modification part have been incorporated into the body and the involved terms on the margin of the page were identified with single vertical line

In order to facilitate comparison, when drafting this part, we compiled annex B (informative annex) "Comparison List of the Chapter and Article Numbers of EN 1834-1:2000" and Annex C (informative annex) "Technical Differences between this Part and EN 1834-1:2000 and the Reasons".

Auxiliary verb used in expressing the terms in this section shall conform to the regulations of annex E of GB / T 1.1-2000

Annex A, B, and C is informative annexes, D, E and F in this Part are normative annexes.

This Part is proposed by China Electrical Equipment Industrial Association.

The Part is under jurisdiction of the National Explosion-proof Electrical Equipment Standardization Technical Committee.

This part is drafted by: Nanyang Explosion-proof Electrical Equipment Research Institute, China National Quality Supervision and Test Centre for Explosion-proof Electrical Product.

Units involved in drafting of this part: Zhejiang Xinchai Power Co., Ltd., Hangzhou Forklift Co., Ltd., Hengyang Main Workshop of Battery Car.

Main drafters of this part: Zhang Xianli, Wang Jun, Wu Liangquan, Fu Zheng, Jiang Jianxun.

This Part was first issued in 2007.

National Explosion-proof Electrical Equipment Standardization Technical Committee is responsible for the explanation of this part.

General rules of explosion-protect techniques of reciprocating internal combustion engines for explosive atmospheres –

Part 1: Group II engines for use in flammable gas and vapor atmospheres

1 Scope

This part of GB 20800 specifies the safety requirements and/or measures to remove the hazards and limit the risks on reciprocating internal combustion compression ignition engines (hereinafter referred to as 'engines') of group II categories 2 and 3 for use in potentially explosive atmospheres of flammable gas and vapour.

This part applies to explosion protection design, manufacture and examination for engines¹⁾

This part does not apply to flammable gas and vapour atmospheres containing carbon disulphide.

This part does not define requirements relating to the driven machinery. These requirements can be found in the appropriate application standards.

This part does not apply to engines used in premises for the processing manufacture or storage of explosives.

This part does not apply to spark ignition engines.

¹⁾ No specific regulations on inspection procedure in EN 1834-1: 2000. Specific regulation of inspection procedure see Annex A in GB 3836.1-2000.



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