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

GB/T 3836.13-2021

**Explosive atmospheres - Part 13: Equipment repair, overhaul,
reclamation and modification**

爆炸性环境 第13部分：设备的修理、检修、修复和改造
(English Translation)

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1 Scope

This document provides technical guidance for the repair, overhaul, repair and transformation of equipment designed for use in explosive environments.

This document applies to the repair, overhaul, repair and transformation of explosion-proof

equipment to reduce defects found during operation, inspection and maintenance.

This document does not give recommendations on cables and wiring systems that may need to be updated when the equipment is reinstalled. This document does not apply to encapsulated type "m".

2 Normative references

The content of the following documents constitutes an indispensable clause of this document through normative references in the text. Among them, dated quotations Only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to This document.

GB/T 3836.1 Explosive environment Part 1: General requirements for equipment (GB/T 3836.1-2021, IEC 60079-0: 2017, MOD)

GB/T 3836.2 Explosive atmosphere Part 2: Equipment protected by flameproof enclosure "d" (GB/T 3836.2-2021, IEC 60079-1:2014, MOD)

GB/T 3836.3 Explosive atmosphere Part 3: Equipment protected by increased safety "e" (GB/T 3836.3-2021, IEC 60079-7:2015, MOD)

GB/T 3836.4 Explosive atmosphere Part 4: Equipment protected by intrinsically safe "i" (GB/T 3836.4-2021, IEC 60079-11:2011, MOD)

GB/T 3836.6 Explosive atmosphere Part 6: Equipment protected by liquid immersion type "o" (GB/T 3836.6-2017, IEC 60079-6:2015, MOD)

GB/T 3836.8 Explosive atmosphere Part 8: Equipment protected by "n" type (GB/T 3836.8-2021, IEC 60079-15: 2017, MOD)

GB/T 3836.15 Explosive atmosphere Part 15: Design, selection and installation of electrical devices (GB/T 3836.15-2017, IEC 60079-14:2007, MOD)

GB 3836.20 Explosive atmosphere part 20.Equipment with equipment protection level (EPL) of Ga level (GB 3836.20-2010, IEC 60079-26.:2006, IDT)

GB/T 4208 Enclosure protection grade (IP code) (GB/T 4208-2017, IEC 60529:2013, IDT)

GB/T 19518.1 Resistance Heat Tracing in Explosive Environment Part 1: General and Test Requirements (GB/T 19518.1-2017, IEC 60079-30-1:2007, MOD)

GB/T 19518.2 Resistance Heat Tracing in Explosive Environment Part 2: Guidelines for Design, Installation and Maintenance (GB/T 19518.2-2017, IEC 60079-30-2:2007, MOD)

GB/T 21205 Specification for refurbishment of rotating electrical machines (GB/T 21205-2007, IEC 60034-23.:2003, IDT)

3 Terms and definitions

The following terms and definitions defined in GB/T 3836.1 apply to this document.

Additional requirements for the explosion-proof type are proposed. In the case of equipment containing multiple explosion-proof types, the corresponding clauses shall be adopted.

If the "m" type is used together with other explosion-proof types (such as "d" or "e"), the relevant provisions of this document apply to other explosion-proof types Overhaul or repair, but if the "m" part is defective, it can only be replaced.

Note 1: There is no additional requirement for liquid immersion type "o".

When the following conditions are met, repairs and overhauls that affect the explosion-proof type shall be deemed to comply with the engineering drawing.

- a) Use the manufacturer's parts or parts that meet the requirements of the 4.3.2.4 document;
- b) Perform repairs or changes in accordance with the detailed instructions in this document and engineering drawings; and
- c) It is carried out by qualified personnel who meet the requirements of 4.3.2.2.

If there is no document that meets the requirements of 4.3.2.4.1, the equipment repair or overhaul shall be carried out in accordance with this document and other relevant standards and the equipment shall be Prepare for initial verification. The repair organization shall record the steps of obtaining relevant documents in the repair organization record (see 4.3.2.4.3).

If it is equipment modification, it should meet the requirements of 4.3.2.6, and it is required to obtain the explosion-proof certificate again, or the equipment is no longer suitable for hazardous use place.

Note 2: The relevant documents of Class I equipment cannot be repaired unless it is retested and a new explosion-proof certificate is issued.

If repair or modification techniques that do not conform to this document are used, it is necessary to consult the manufacturer and/or explosion-proof inspection agency to determine the equipment.

Whether the equipment is suitable for continued use in an explosive environment.

4.2.1 Explosion-proof certificate and engineering drawings

Equipment users should understand any relevant regulations related to regular inspections and verifications to ensure electrical equipment installed in explosive environments is appropriate. The user should consider whether there are sufficient facilities and capabilities