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Electric earth-moving machinery - Safety requirements

电动土方机械 安全要求

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee for Standardization of Earthmoving Machinery (SAC/TC334).

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Introduction

The general safety requirements for earthmoving machinery have been specified in relevant standards. For example, GB/T 25684 (all parts) specifies the GB/T 38943 (all parts) specifies the electrical safety requirements for electric earthmoving machinery, GB/T 44257.1 specifies the Safety requirements for power batteries for electric earth-moving machinery.

In order to further improve the safety level of electric earth-moving machinery, based on the above documents, this document further clarifies the safety level of electric earth-moving machinery.

Special safety requirements for electric earth-moving machinery, including indirect contact protection, dust and water resistance, fire resistance, rechargeable energy storage system, function control, Safety requirements and test methods for charging, battery replacement, external power supply, event data recording and electromagnetic compatibility to protect electric earth-moving machinery during operation Personnel safety during the process.

Safety requirements for electric earth-moving machinery

1 Scope

This document specifies the safety requirements for electrically powered earth-moving machinery and describes the corresponding test methods.

This document applies to the manufacture and inspection of electric earth-moving machinery with an onboard drive system with a maximum operating voltage of Class B or above.

This document is not applicable to fuel cell earth-moving machines and electric earth-moving machines operating in explosive atmospheres.

2 Normative references

GB/T 2406.2

GB/T 2408

GB/T 4094.2

GB/T 4208-2017

GB/T 8498

GB/T 8593.1

GB/T 8593.2

GB 8624

GB 18384

GB/T 19836

GB/T 20234.1

GB/T 20234.2

GB/T 20234.3

GB/T 20234.4

GB/T 22356

GB/T 22359.1

GB/T 25617

GB/T 25684

GB/T 27930

GB/T 38892

GB/T 38943

GB/T 39720

GB/T 44254

GB/T 44257.1