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GB/T 44970-2024

Grain and oil machinery - Air cushion belt conveyor

粮油机械 气垫带式输送机

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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 State Administration of Grain and Material Reserves. This document is under the jurisdiction of the National Technical Committee on Cereals and Oils Standardization (SAC/TC270). This document was drafted by: Zhengzhou COFCO Research and Design Institute Co., Ltd., Jiangsu Fuchang Machinery Equipment Co., Ltd., Jiangmen Nanfang Conveyor Machinery Engineering Co., Ltd., Jiangsu Fengshang Steel Silo Engineering Co., Ltd., Henan Tianlong Transportation Equipment Co., Ltd., Jiangsu Guoliang Storage Engineering Co., Ltd. Company, COFCO Engineering Maosheng Equipment (Henan) Co., Ltd., and Central Grain Reserve Panjin Direct Depot Co., Ltd. The main drafters of this document are. Li Junwu, Gao Lan, Zhang Junling, Hu Fangfang, Qu Xiaohui, Ren Shouhua, Tang Xuejun, Guo Shanhui, Li Kunyou, Qian Hangsong, Chen Hongbin, Huang Xiayun, Xin Shuojun, Xu Liang, Guo Jinxing, Qian Qingfeng, Jing Haiwei, Zhu Yaoqiang, Yang Wenli, Chen Xu, Wang Peiqi, Wang Zhun, Zheng Weixin and Zhang Peipei. Grain and oil machinery air cushion belt conveyor

1 Scope

GB/T 44970-2024 is the Chinese standard for air cushion belt conveyors in grain and oil

plant. In an air cushion conveyor the belt runs on a film of air in a shaped trough instead of on idler rollers, which removes the rotating parts that dust, chaff and grain fines destroy, cuts the noise and the running resistance, and prevents the belt sag that damages grain, all of which matter in a facility where dust is also an explosion hazard. The standard sets the working principle, the categories, the model designation and basic parameters, and then the technical requirements: the trough and the air chamber, the fan and the air supply, the belt and its tracking, the drive and take-up, the loading and discharge, the sealing and dust control, the safety devices including the belt drift, slip and blockage protection, and the noise, power consumption and conveying capacity. It then gives the test methods, the inspection rules and the marking, packaging, transport and storage. It takes effect on 1 June 2025.

This document specifies the working principle, classification, model and basic parameters, technical requirements, inspection rules, marking, packaging, transportation and other aspects of the air cushion conveyor. The transport and storage requirements are described and the corresponding test methods are described. This document applies to fixed-arrangement air cushion belt conveyors for continuous conveying of food materials.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 191 Pictorial markings for packaging, storage and transportation

GB/T 1184-1996 Shape and position tolerances without tolerance values

GB 2894 Safety signs and their use guidelines

GB/T 3768 Acoustics Sound Pressure Method for Determination of Sound Power Level and Sound Energy Level of Noise Source Using a Simple Measurement Surface Enveloped Above the Reflecting Surface Easy Method

GB/T 4490 Fabric core conveyor belt width and length

GB/T 5226.1 Electrical safety of machinery Electrical equipment of machinery Part