

ICS 53.040.01

CCS J 81



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

GB/T 44521-2024

Scraper conveyors - Safety specifications

刮板输送机 安全规范

Issued on: September 29, 2024

Implemented on: April 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	2
4 Design and Manufacturing	2
5 Installation and commissioning	6
8 Table A.2 Chain Specification Parameter Comparison.....	9

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 Continuous Handling Machinery (SAC/TC331). This document was drafted by: Qingdao Daneng Environmental Protection Equipment Co., Ltd., Beijing Hoisting and Conveying Machinery Design and Research Institute Co., Ltd., Hubei Yidu Yunji Electromechanical Co., Ltd., Jiangmen Nanfang Conveying Machinery Engineering Co., Ltd., Yidu Huaxun Intelligent Conveying Co., Ltd., Qin Huangdao Port Co., Ltd., Yidu Zhongqi Heavy Industry Machinery Co., Ltd., Hubei Yidu Zhongji Environmental Protection Engineering Co., Ltd., Hubei Tianyi Machinery Co., Ltd. Co., Ltd., Hunan Changzhong Machinery Co., Ltd., CCCC Mechanical and Electrical Engineering Bureau Co., Ltd., Qingda Energy Conservation Engineering Research Institute (Qingdao) Co., Ltd. Company, Shandong University, Zhejiang Energy Aksu Thermal Power Co., Ltd., State Grid Shandong Electric Power Company Electric Power Research Institute, North China Electric Power University, Taiyuan University of Science and Technology, China Power Construction (Qichun) New Materials Co., Ltd., Tangshan Xinkaitai Conveying Machinery Co., Ltd., Shanxi Dor Jinze Coal Machinery Co., Ltd. Company, Shandong Zhaojin Group Co., Ltd., Jiangsu Botai Environmental Protection Engineering Co., Ltd. The main drafters of this document are. Wang Yong, Liu Yanhui, Xing Lei, Du Yuzhou, Lan Linggen, Song Hongjiu, Li Shusheng, Gu Senlei, Tan Hongwei, Xin Zushan, Cao Junlin, Xu Peng, Jia Lanhui, Leng Xu, Zhang Guangrong, Chang Jingcai, Guo Xiangjian, Zhao Chenbo, Zhang Duqing, Xu Jinliang, Wang Xuewen, Shen Yiyuan, Zuo Li, Yang Dingchu, Zuo Mingming, Long Sen, and Zhu Chenyin. Scraper conveyor safety

regulations

1 Scope

China's national safety specification for scraper conveyors. A scraper conveyor drags material along a trough with flights attached to one or two chains, and it is the conveyor used where a belt cannot be - in coal mine faces, in ash and dust handling, in grain and in hot or abrasive materials. Its hazards follow from the construction. The chain runs in an enclosed trough under high tension, and a broken chain releases that tension violently; the flights create a shearing action against the trough at every point along its length; and the machine is frequently entered for clearing blockages, which is where the fatalities occur - a conveyor that starts while someone is inside it is not survivable. So the safety specification concentrates on isolation and lockout, on guarding the entry points, on chain tension monitoring, and on the sequence for clearing a blockage safely.

This document specifies the safety requirements for scraper conveyors in terms of design and manufacturing, installation and commissioning, use, inspection and maintenance. This document applies to scraper conveyors for conveying bulk materials. This document does not apply to.

- a) Scraper conveyor used in coal mines;
- b) Scraper conveyors for transporting fireworks, gunpowder, explosives, strong oxidizers and radioactive materials;
- c) Explosive atmospheres to which GB/T 3836.1 does not apply;
- d) Explosion hazardous environments where the provisions of GB 50058 are not applicable.

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 699 High-quality carbon structural steel

GB/T 755 Ratings and performance of rotating electrical machines

GB/T 2893.5 Graphic symbols, safety colors and safety signs Part

5 Principles and requirements for the use of safety signs

GB/T 3767 Acoustics - Determination of sound power level and sound energy level of noise source by sound pressure method - Engineering method for approximate free field above

reflecting surface

GB/T 3836.1 Explosive atmospheres Part

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