www.bmhri.com

（广告）

CONTENTS
目 次

◆ 业内资讯 | INFORMATION

P14 全国起重机械标准化技术委员会发布公开征集起重机械标准制修订项目的通知

The National Technical Committee of Hoisting Machinery Standardization issues a notice on the public solicitation of hoisting machinery standard formulation and revision projects

为优化和完善起重机械标准体系，全力做好全国起重机械标准化工作，更好地支撑产业的高质量发展，2021 年 1 月 26 日，全国起重机械标准化技术委员会发布通知，公开征集起重机械标准制修订项目，邀请各有关单位结合工作实际和产业发展需求，提出拟制修订的起重机械标准项目，尤其是针对起重机械的绿色制造、智能制造、安全评价及报废等新技术领域的标准项目。

In order to optimize and improve the hoisting machinery standard system, carry out the national hoisting machinery standardization tasks, and provide better support for the high-quality development of the industry, the National Technical Committee of Hoisting Machinery Standardization issued a notice on January 26, 2021 to publicly solicit hoisting machinery standard formulation and revision projects, and invite all relevant entities to propose the hoisting machinery standard projects to be formulated and revised based on actual conditions at work and industrial development needs, especially the standard projects in the new technology fields, such as green manufacturing, intelligent manufacturing, safety evaluation and scrapping of hoisting machinery, etc.

进口博览局为在沪外资企业举办专场网上推介会

The Import Expo Bureau holds a special online promotion introduction and marketing event for foreign-funded enterprises in Shanghai

《商用车辆机械式停车设备》团体标准被列入 2020 年团体标准应用示范项目

The group standard Mechanical Parking Equipment for Commercial Vehicles is included in the 2020 group standard application demonstration projects

P15 粤港澳大湾区首个全自动化集装箱码头首批自动化设备顺利抵港

The first batch of automation equipment for the first fully automated container terminal in the Guangdong-Hong Kong-Macao Greater Bay Area successfully arrives in Hong Kong

卫华与武汉理工大学共建港口物流智能装备技术研发中心

Weihua and Wuhan University of Technology jointly build a Research and Development Center for Port Logistics Intelligent Equipment Technology

2021 年 1 月 26 日，在武汉理工大学党委副书记赵经和卫华集团党委书记、总裁俞有飞的见证下，卫华集团与武汉理工大学举行战略合作签约仪式，双方将共建“港口物流智能装备技术研发中心”。

On January 26, 2021, witnessed by Zhao Jing, Deputy Secretary of the CPC Committee of Wuhan University of Technology, and Yu Youfei, Secretary of the CPC Committee and President of Weihua Group, Weihua Group and Wuhan University of Technology held a strategic cooperation signing ceremony, and both parties will jointly build a “Research and Development Center for Port Logistics Intelligent Equipment Technology”.

德国通快与永恒力达成合作

TRUMPF enters into a cooperation with Jungheinrich

◆ 会议报道 | CONFERENCE REPORT

P16 北起院 2021 年全体职工大会暨二届九次职代会（工代会）胜利召开

BMHRI’s 2021 General Meeting of Employees and the Ninth Meeting of Employee Representatives (Meeting of Worker Representatives) of the Second Session has been successfully held

北京起重运输机械设计研究院有限公司 2021 年全体职工大会暨二届九次职代会（工代会）于 1 月 28 日至 29 日胜利召开。中工国际党委书记、董事长王博，中工国际战略发展部副总经理（部门总经理级）刘梓怡、综合部总经理宋哲等上级单位领导出席了全体职工大会。北起院董事长、总经理、党委副书记唐超，院党委书记、董事、副总经理孙吉泽等相关领导参加了此次会议。为了保证广大职工的健康，根据疫情防控要求，本次会议设主会场 1 个、分会场 8 个，通过现场会及视频会结合方式召开，各会场参会人数共 200 余人。大会由公司党委副书记、纪委书记张朝臣主持。

2021 General Meeting of Employees and the Ninth Meeting of Employee Representatives (Meeting of Worker Representatives) of the Second Session of Beijing Materials Handling Research Institute Co., Ltd. was successfully held in January 28-29. Wang Bo, Secretary of the CPC Committee and Chairman of Board of Directors of CHINA CAMC Engineering, Liu Ziyi, Deputy General Manager of the Strategic Development Department (at general manager level) of CHINA CAMC Engineering, and Song Zhe, General Manager of the General Department of CHINA CAMC Engineering, attended the General Meeting of Employees. Relevant leaders, such as Tang Chao, the Chairman, General Manager and Deputy CPC Secretary of BMHRI, and Sun Jize, Secretary of the CPC Committee, Director and Deputy General Manager of BMHRI, etc. attended the meeting. In order to ensure the health of the employees, this meeting had 1 main venue and 8 branch venues according to the requirements of epidemic prevention and control. It was held by a combination of onsite meeting and video conference. There were more than 200 attendees at each venue. The meeting was presided over by Zhang Chaochen, Deputy Secretary of the Company’s CPC Committee and Secretary of its Discipline Inspection Commission.

◆ 专题报道 | SPECLAL REPORTS

P18 把握行业发展趋势，助力产业转型升级——《中国物料搬运装备产业发展研究报告（2018-2019）》系列访谈（一）

Grasp the development trend in the industry and contribute to the transformation and upgrading of the industry - series interviews of Development Research Report on China’s Material Handling Equipment Industry (2018-2019) (I)

11 月 3 日上午，由中国机械工程学会组织编写的《中国物料搬运装备产业发展研究报告（2018-2019）》在 CeMAT ASIA 2020 上海物流展上正式发布。它是中国机械工程学会继《中国物流仓储装备产业发展研究报告（2016-2017）》之后的又一本著作，一经发布便受到了业内的普遍关注，《起重运输机械》杂志此次携手参与该“报告”编撰的各章节专家，分别围绕著作内容中的相关主题进行了专访，并将分三期将专访内容陆续展现给大家。

On the morning of November 3, the Development Research Report on China’s Material Handling Equipment Industry (2018-2019) compiled as organized by the Chinese Mechanical Engineering Society was officially released at CeMAT ASIA 2020, Shanghai. It is another work of the Chinese Society of Mechanical Engineering following the Development Research Report on China’s Logistics and Warehousing Equipment Industry (2016-2017). Once published, it has attracted widespread attention in the industry. The magazine Hoisting and Conveying Machinery has cooperated with experts who have participated in the writing of each chapter of the “Report” to conduct exclusive interviews on related topics in the contents of the work, and will show the contents of the interviews to readers in three issues in succession.

分析研究 | ANALYSIS RESEARCH

国内外规范中铝合金焊缝形式对强度及疲劳的影响分析 */ 张 氢 陈雪华 孙远韬 王兴锋 29
Analysis of influence of weld form of aluminum alloy on strength and fatigue in domestic and foreign specifications/Zhang Qing, Chen Xuehua, Sun Yuantao, Wang Xingfeng

基于有限元子模型法的架桥机主梁螺栓强度分析 / 范晨阳 夏 昊 肖 浩 37
Strength analysis of girder bolts of bridge erector based on sub-modeling technology of finite element method/Fan Chenyang, Xia Hao, Xiao Hao

起重机械在用钢丝绳检验指标研究 */ 曾世龙 李 远 陈 萍 44
Study on inspection index of in-service wire rope of hoisting machinery/Zeng Shilong, Li Yuan, Chen Ping

考虑电池电量约束的自动化码头 AGV 调度 / 吴洪明 邹梦艳 47
AGV scheduling of automated terminal considering battery power constraints/Wu Hongming, Zou Mengyan

新产品新技术 | NEW PRODUCT NEW TECHNOLOGY

新型起重机械吊钩组滑轮保持装置 / 赵 东 贾文清 53
Holding device of hook block of novel hoisting machinery/Zhao Dong, Jia Wenqing

信息技术 | INFORMATION TECHNOLOGY

一种轴端轴箱拧紧信息化系统设计与应用 / 关 欣 57
Design and application of information system for tightening axle end and box in railway industry/Guan Xin

设备技术 | EQUIPMENT TECHNOLOGY

岸边集装箱起重机前大梁头部防扭装置主参数分析 / 黎宁生 61
Analysis of main parameters of head anti-torsion device of front girder of quayside container crane/Li Ningsheng

VC 定位在岸边集装箱起重机中的应用 / 曹逸荣 汤宏杰 姚惠君 65
Application of VC positioning in quayside container crane/Cao Yirong, Tang Hongjie, Yao Huijun

垂直主梁倾翻铸造起重机 / 林明烈 69
Casting crane with vertical tilted girder/Lin Minglie

臂式斗轮堆取料机干雾降尘系统技术优化 / 林 楠 徐万鑫 张海新 李广育 姚 扬 72
Technical optimization of dry fog dust-settling system of arm bucket wheel stacker-reclaimer/Lin Nan, Xu Wanxin, Zhang Haixin, Li Guangyu, Yao Yang

测试试验 | TESTING EXPERIMENT

不同工况下电梯紧急制动时轿厢内人员受冲击载荷的实验研究 */ 刘小畅 王 晨 文 祥 76
Experimental study on impact load of people in elevator car during emergency braking under different working conditions/Liu Xiaochang, Wang Chen, Wen Xiang

事故分析 | ACCIDENT ANALYSIS

吊环螺钉断裂失效分析 / 程永恒 刘 兵 荀殿山 81
Fracture failure analysis of eye bolt/Cheng Yongheng, Liu Bing, Xun Dianshan