

Contents

人物专访

- 搬动世界，传递真情——访北京起重运输机械设计研究院刘小虎院长 本刊编辑部 (1)
Do the handling with our enthusiasm and reputation——Interview with President Liu Xiaohu of Beijing
Materials Handling Research Institute the Editorial Office

设计·计算

- 新型冷轧薄壁重载轻型免维护滑轮的设计与应用* 孙远韬 张 氢 (3)
Design and application of new cold-rolled thin-wall heavy-load light-duty maintenance-free pulley*
..... Sun Yuantao, Zhang Qing
基于 Fluent 的起重机液压阀流场分析与结构优化设计* 卞 磊 (7)
Fluent-based flow field analysis and optimum structural design of hydraulic poppet valve of crane*
..... Bian Lei
基于 PZT 的柴油机振动俘能器的设计* 胡 迪 尚 冉 刘 丹 郑卫刚 (11)
PZT-based design of vibration energy harvester of diesel engine*
..... Hu Di, Shang Ran, Liu Dan, Zheng Weigang
水电站球阀自动检修机械手的设计 戴葆青 葛继兴 邓宏伟 王 岩 陈书来 翟春荣 (15)
Design of automatic repair manipulator of hydraulic station ball valve
..... Dai Baoqing, Ge Jixing, Deng Hongwei, Wang Yan, Chen Shulai, Zhai Chunrong
焊装新夹具投入钢丝绳受力理论计算与仿真 专 翱 何庆平 (18)
Theoretical stress calculation and simulation of steel cable used for welding new clamp
..... Zhan Ao, He Qingping
基于有限元的组合式销轴的设计 宰守香 陈东照 (21)
FEA-based design of combined pin Zai Shouxiang, Chen Dongzhao

分析·研究

- 立井提升系统在井口解除二级制动时的动力学特性分析 霍 磊 李玉瑾 (23)
Analysis of dynamic characteristics of hoisting system of vertical shaft when the wellhead
relieves two-stage braking Huo Lei, Li Yujin
散货抓斗的运动学特性仿真分析* 李 馨 张庆英 (27)
Simulation analysis of kinematics characteristics of bulk grab* Li Xin, Zhang Qingying
惯性力在循环式索道启动和制动过程中的影响 里 鑫 田增阳 康晶晶 袁德航 赵朝云 (31)
Influence of inertia force during starting and braking process of loop-type cableway
..... Li Xin, Tian Zengyang, Kang Jingjing, Yuan Dehang, Zhao Chaoyun
海上作业起重船的运动响应研究* 高 健 唐文献 唐振新 刘 燕 任丽娜 (35)
Study of motion responses of offshore crane Ship*
..... Gao Jian, Tang Wenxian, Tang Zhenxin, Liu Yan, Ren Lina
基于二分法的固定式起重机整机有限元分析 张 野 张 帅 于慧艳 张立建 (40)
Dichotomy-based finite element analysis of fixed crane
..... Zhang Ye, Zhang Shuai, Yu Huiyan, Zhang Lijian
基于 Ansys Workbench 的桥式起重机双梁桥架有限元分析 宋元岭 卫良保 左宇飞 侯明凯 师 玮 (44)
Ansys Workbench-based finite element analysis of double girder bridge of bridge crane
..... Song Yuanling, Wei Liangbao, Zuo Yufei, Hou Mingkai, Shi Wei
岸边集装箱起重机俯仰缠绕均衡装置的比较和分析 韩林智 (48)
Comparison and analysis of pitching and winding balancer of quayside container crane Han Linzhi
起重机设计中结构和机构使用级别关系的探讨 李 飞 邹小忠 (51)
Discuss on relationship of usage level between structure and mechanism in crane design
..... Li Fei, Zou Xiaozhong

新产品·新技术

- 基于管控与追溯服务的配送中心管理系统的开发及应用 魏 兰 孙雪芹 吴 娱 (54)
Development and application of distribution center management system based on
management & control and tracing service Wei Lan, Sun Xueqin, Wu Yu
T4045K10 型 40 t 门座起重机 刘海云 (58)
Liu Haiyun
T4045K10 40 t portal crane Liu Haiyun
基于 TRIZ 理论的起重机创新设计研究 张 鑫 (62)
TRIZ theory -based research on innovative design of crane Zhang Xin
一种新型滚筒制动装置的探讨 张 媛 梁作华 刘建坤 王成建 (66)
Discussion of a new roller brake Zhang Yuan, Liang Zuohua, Liu Jiankun, Wang Chengjian
不完全式定点定量变频叶片式分料器 岳 波 (69)
Non-full variable-frequency blade-type distributor at fixed points and quantity Yue Bo
同步控制器在起重机大车纠偏系统中的应用 王 昕 王佳蔚 (71)
Application of synchronous controller in correction system of crane trolley Wang Xin, Wang Jiawei
Application of synchronous controller in correction system of crane trolley Wang Xin, Wang Jiawei

新型起重机水平导向轮的设计 袁秀峰 (73)
 Design of new horizontal guide sheave for crane Yuan Xiufeng

质量·管理

秦皇岛港煤三期能源(电能)管理信息系统建设与应用 曹尚杰 (74)
 Qinhuangdaog port coal phase-III energy (electric energy) construction and application of information management system Cao Shangjie

核电起重设备经验反馈体系的建立 朱东科 石蓓蓓 朱诗威 (78)
 Establishment of experience feedback system of nuclear power lifting equipment Zhu Dongke, Shi Beibei, Zhu Shiwei

设备·技术

轻量化起重机高效变频电机研究 王正勇 辛宏彦 郝鹏飞 (80)
 Research on high-efficiency and variable-frequency motor of light-weight crane Wang Zhengyong, Xin Hongyan, Hao Pengfei

带式输送机托辊间距的合理布置 曹新平 王丹玉 (83)
 Reasonable arrangement of idler spacing of belt conveyor Cao Xiping, Wang Danyu

起重机常用调速方案技术综述及经济指标剖析 宋宵 寇增余 于世富 (85)
 Technical summary and economic indicators analysis of common speed-regulation scheme of crane Song Xiao, Kou Zengyu, Yu Shifu

胶带自动清扫装置的设计与应用 李子靖 裴学江 (88)
 Design and application of automatic cleaning devices for tape Li Zijing, Qiu Xuejiang

起重机起升机构溜钩现象的解决方法 朱德金 马卫军 王家正 (89)
 Solutions for hook gliding of hoisting mechanism of crane Zhu Dejin, Ma Weijun, Wang Jiazheng

故障分析

卸船机主/从驱动过流故障分析及处理 徐斌 (91)
 Analysis and handling of overcurrent faults of ship unloader master/slave drives Xu Bin

失效分析技术在客运索道中的应用 衣宝龙 吴素君 张强 (94)
 Application of failure analysis technologies in passenger cableway Yi Baolong, Wu Sujun, Zhang Qiang

实验·研究

制动电机温升试验中工作制运行与连续运行的对比 任煜 (98)
 Comparison of working system operation and continuous operation in temperature rise test of brake motor Ren Yu

安全·检测

吊运熔融金属用钢丝绳电动葫芦安全制动器的设置与检验 王小平 贾文明 (101)
 Setting and inspection of safety brake of wire rope electric hoist used for hoisting molten metal Wang Xiaoping, Jia Wenming

使用·维修

2 500 t/h 抓斗卸船机台车平衡梁裂纹修复 冯华龙 程金龙 孙斌辉 (103)
 Crack repair of balance beam of trolley of 2 500 t/h grab ship-unloader Feng Hualong, Cheng Jinlong, Sun Binhui

双梁桥式起重机主梁下挠修复加固技术 陈永继 胡海霞 梁杰金 (108)
 Repair and reinforcement technologies for down deflection of girder of double-beam bridge crane Chen Yongji, Hu Haixia, Liang Jiejin

技术改造

备胎架收放装置液压系统的优化改进 詹隽青 贾英杰 李立顺 徐更杰 沈炎林 (111)
 Optimization and improvement of hydraulic system of retracting and extending devices of spare wheel carrier Zhan Juanqing, Jia Yingjie, Li Lishun, Xu Gengjie, Shen Yanlin

混匀堆料机行走机构故障分析与改进 郭宏 廖鸿 (114)
 Failure analysis and improvement of running gear of blending stacker Guo Hong, Liao Hong

材料·工艺

黄骅港煤炭码头装卸工艺方案设计 吴燕子 朱云海 (116)
 Scheme design of loading and unloading process of huanghua port coal terminal Wu Yanzi, Zhu Yunhai

岸边集装箱起重机短轨加强块焊接残余应力分析 赵德龙 王兆荣 包孔王达 陈志荣 (120)
 Analysis on welding residual stress of reinforcement block for short rail of quayside container crane Zhao Delong, Wang Zhaorong, Bao Kong, Wang Da, Chen Zhirong

行业信息

中船九院完成国内最大四连杆式门座起重机吊装 (14)
 China Shipbuilding No. 9 Institute completed the lifting of the largest four-linkage gantry crane in China (53)