

港口技术

PORT ENGINEERING TECHNOLOGY

2

2022年4月

第 59 卷

【总第 270 期】

唐山港曹妃甸钢铁物流有限公司通用码头



万方数据 国家电网建设集团有限公司主管
中交第一航务工程勘测设计院有限公司主办

目 次

海岸动力

- 多孔结构防波堤消浪特性实验研究 倪道俊, 魏宇墨, 齐 欣 (1)

平面工艺

- 港口储配煤基地自动化控制系统的探索与应用 宋英麟, 孙 鲁, 张树元 (6)

- 门座起重机与高架移动卸料漏斗组合应用研究 岳金灿, 李佩祎 (10)

- 基于 Optimoor 的绿洲级邮轮码头系泊分析研究 杨 明 (15)

- 茂名港利丰散货码头水域布置优化设计 杨攀博, 杨松姗, 李俊良 (18)

- 远海 PPK 测量潮位用于深度基准面计算的研究 周 颖, 王 瑞 (23)

结构

- 船舶停靠码头撞击力研究 周 丹 (27)

- 中外斜坡式防波堤结构设计方法对比 宋建东, 王 刚, 赵 凯 (32)

- 水工平台上建筑物结构设计 刘月红, 韩广兴 (37)

- 东营港东营港区防波挡沙堤结构型式研究 杨文斌, 李 颖 (41)

- 基于国外标准的静载试验数据分析方法 房城新, 王 东 (46)

- 高烈度地震区大跨度引桥结构的应用数值模拟分析 周鑫强, 郭浩霖, 覃 杰, 陈良志 (50)

- 船坞设计各行业规范条文取值探讨 王广成, 刘馨怡, 刁伟明 (55)

综合

- 具有运输 PHC 桩要求的临时码头施工要点 柳承辉, 冯光华, 李脉森 (60)

- 内河深水裸岩地质嵌岩钢管桩快速施工技术 李业勋, 朱奕帆, 左小永, 邓文彬 (64)

- 危险货物集装箱堆场的防雷设计 付明立 (68)

- 海上风电三筒导管架基础浮运特性研究 练继建, 刘 潇, 郭耀华, 王海军 (72)

- 步履式顶推法在钢箱梁安装施工中的应用 许 欣 (76)

- 自动化码头供电系统设计 孔德鹏, 武冰洁 (80)

- 基于 BIM+IoT+AI 的南湖水系治理智慧管理及应用 魏志杰, 翟国师 (84)

- 采用一种多功能吊具进行海上风电单桩割除 张祖涛 (89)

- 大体积素混凝土胸墙表观裂缝防治措施 武 涛 (93)

- 模块化组合工程船平台的设计与应用 范怀斌, 陆少峰, 刁 约, 巫建军, 李全民, 李基锐 (97)

地基基础

- 高能级强夯地基振动传播规律研究 李晓雷, 唐龙龙 (101)

- 围堤地基固结沉降与侧向变形附加沉降分析 夏超群, 于 伟, 陈琪林 (104)

- 某软弱地基深基坑支护计算分析 刘全兴, 张翠莹 (108)

工程勘察

- 国产多波束侧扫声呐系统水上测试及性能分析 徐 乐, 汪连贺 (112)

- 基于 PPK 技术的高精度内陆水库水位测量 张 媛, 刘东全, 刘晓金 (116)

- 封面: 唐山港曹妃甸钢铁物流有限公司通用码头 (摄影 邢迎辉)

Contents

Coastal Dynamics

- Experimental Study on Wave Dissipation Characteristics of Porous Breakwater
..... Ni Daojun, Wei Yumo, Qi Xin (1)

Planning and Technology

- Research and Application of Automatic Control System for Coke Storage and Blending Base in Coastal Ports
..... Song Yinglin, Sun Lu, Zhang Shuyuan (6)
Research and Application of Portal Cranes and Overhead Mobile Unloading Hoppers
..... Yue Jincan, Li Peiyi (10)
Mooring Analysis for Oasis-class Cruise Terminal Based on Optimoor
..... Yang Ming (15)
Optimum Layout of Water Area around Lifeng Bulk Cargo Terminal in Maoming Port
..... Yang Panbo, Yang Songshan, Li Junliang (18)
Study on Calculation of Water Depth Datum by PPK Tide Level Measuring in Open Sea
..... Zhou Ying, Wang Rui (23)

Structure

- Research on Impact Force Caused by Ships Lying at Berth
..... Zhou Dan (27)
Comparative Analysis of Design Methods of Slope Breakwater Specified in Chinese and International Codes
..... Song Jiandong, Wang Gang, Zhao Kai (32)
Structural Design of Building on Maritime Platform
..... Liu Yuehong, Han Guangxing (37)
Study on Structure Type of Sand Barrier at Dongying Harbor of Dongying Port
..... Yang Wenbin, Li Ying (41)
Analysis Method of Static Load Test Data Based on International Standards
..... Guo Chengxin, Wang Dong (46)
Numerical Simulating Analysis for Application of Long-span Bridge Approach Structure in High-intensity Seismic Zone
..... Zhou Xinqiang, Guo Haolin, Qin Jie, Chen Liangzhi (50)
Discussion on Value Range in Provisions in Industry Specifications for Design of Dock
..... Wang Guangcheng, Liu Xinyi, Diao Weiming (55)

General

- Construction Essentials of Temporary Wharf with Function of Transportation of PHC Piles
..... Liu Chenghui, Feng Guanghua, Li Maisen (60)
Rapid Construction Technique of Rock-socketed Steel Pipe Pile under Geological Condition of Inland Deepwater Exposed Rock
..... Li Yexun, Zhu Yifan, Zuo Xiaoyong, Deng Wenbin (64)
Design of Lightning Protection of Dangerous Goods Container Yard
..... Fu Mingli (68)
Research on Floating Transportation Characteristics of Offshore Wind Power Three-tube Jacket Foundation
..... Lian Jijian, Liu Xiao, Guo Yaohua, Wang Haijun (72)
Walking-Type Incremental Launching Method Applying to Installation of Steel Box girder
..... Xu Xin (76)
Design of Power Supply System for Automated Terminal
..... Kong Depeng, Wu Bingjie (80)
Intelligent Management and Application of Nanhu Water Improvement System Based on BIM+Iot+AI
..... Wei Zhijie, Zhai Guoshi (84)
Multifunctional Sling Used to Cut off Single Pile of Offshore Wind Power
..... Zhang Zutao (89)
Analysis of Measures for Preventing and Controlling Cracks on Large-volume Plain Concrete Breast Wall
..... Wu Tao (93)
Design and application of modular combined engineering ship platform
..... Fan Huabin, Lu Shaofeng, Diao Yue, Wu Jianjun, Li Quanmin, Li Jirui (97)

Foundation

- Study on Propagation Law of Foundation Vibration under High Energy Dynamic Compaction
..... Li Xiaolei, Tang Longlong (101)
Analysis of Consolidation Settlement and Additional Lateral Deformation Settlement of Embankment Foundation
..... Xia Chaoqun, Yu Wei, Chen Qilin (104)
Analysis and Calculation of Deep Foundation Pit Support Based on a Weak Foundation
..... Liu Quanxing, Zhang Cuiying (108)

Engineering Investigation

- Underwater Test and Performance Analysis of Multi-Beam Side Scan Sonar System Made in China
..... Xu Le, Wang Lianhe (112)
Application of PPK Technology in High-precision Measuring of Water Level of Inland Reservoir
..... Zhang yuan, Liu Dongquan, Liu Xiaojin (116)

Supervisory Authorit: China Communications Construction Group Co., Ltd.

Sponsored by: China Communications Construction Company First Harbor Consultants Co., Ltd.

Edited by: Port Engineering Technology Editorial Office **Tel:** (86-22)89560099 **Publishing Code:** ISSN 1004-9592

Address: Fdine Tower, Dongting Road Hexi District Tianjin, China **Post Code:** 300220

Editor-in-Chief: Qin Fushou **Editor:** Hu Hao, Fan Ruxia, Ji Menghan, Yin Jie **English Editor:** Xie Peng

E-mail: ggbjb@fdine.net **Website:** www.ggjsbjb.com

Published & Issued by: Port Engineering Technology Editorial Office