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

GB/T 37747-2019

**Requirements for the construction of self-elevating drilling
units**

自升式钻井平台建造质量要求

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed and managed by the National Marine Ship Standardization Technical Committee (SAC/TC12). This standard was drafted. Shanghai Waigaoqiao Shipbuilding Co., Ltd., China Merchants Heavy Industry (Jiangsu) Co., Ltd., China Shipbuilding Industry Comprehensive Technology Economic Research Institute, China Shipbuilding Corporation, 7th Institute, Dalian Shipbuilding Industry Group Co., Ltd., Yantai CIMC to Fushi Hai Ocean Engineering Co., Ltd., China Classification Society. The main drafters of this standard. Chen Gang, Cai Wen, Ma Shuguang, Zhang Xuehui, Bao Guangyu, Li Jun, Liu Gangdong, Liu Qun, Liu Junhong, Mao Haijun, Ji Hailong, Sun Zhenhua, Zhu Kuichen, Sun Yaogang, Cao Chenchao, Chen Yuxiang, Li Wei, Huang Tianying, Liu Zhe, Wang Chunlin, Wang Jiyang, Chen Xu, Wei Dawei, Jin Xiaoliang, Song Yanyuan, Zhu Jiashuai, Xu Jianguo, Yang Yan, Liu Shuai, Liu Zhen, Yang Yong, Han Xiaoyu, Huang Wei, Wu Xin. Self-elevating drilling platform construction quality requirements

1 Scope

China's national requirements for building self-elevating drilling units. It specifies the production process quality control across hull construction, outfitting, accommodation, machinery installation and piping. A jack-up drilling rig is a barge with three or four legs that are lowered to the seabed and then used to lift the hull clear of the water, so that the drilling floor stands on a fixed platform rather than a floating one. That makes it structurally unlike a ship: the legs and the jacking system carry the entire weight of the unit plus the environmental loads, in a configuration where a failure means the hull returns to the water uncontrolled. China builds a large share of the world's jack-ups, and the requirements in this standard concentrate on the construction process because the critical items - the leg chords and racks, the spudcans, the jacking gear and the welds that join them - are inspected during fabrication and are effectively unreachable afterwards.

This standard specifies the quality control, inspection items and construction accuracy requirements of the production process during the construction of the jack-up rig. This standard is applicable to the construction, inspection and delivery of water depth ascending drilling platforms operating above 90m, the construction and inspection of other platforms. Delivery can be used as reference.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 706-2016 hot rolled steel

GB/T 9945-2012 hot rolled ball flat steel

GB/T 14977 General requirements for surface quality of hot rolled steel sheets

GB/T 50312-2016 Integrated wiring system engineering acceptance specification

ISO 4406:2017 Hydraulic Transmission Fluid Solid Particle Pollution Rating Code (Hydraulic fluid power-Fluids- Method for coding the level of contamination by solid particles) IMO International Convention for the Safety of Life at Sea (SOLAS) [International convention for the safety of life at sea (SO- LAS)] IMO Offshore Mobile Drilling Platform Construction and Equipment Regulations (MODU) [Adoption of the code for construction and Equipment of mobile offshore drilling units (MODU)] IMO Resolution MSC.215(82) Performance Standards for Protective Coatings for Seawater Ballast Tanks and Bulk Carriers of All Types of Ships (PSPC) (Performance standard for protective coatings for dedicated seawater ballast tanks in all types of ships and double-side skins of bulk carriers)

3.1.1 Steel Management and Processing

3.1.1.1 Steel Management 3.1.1.1.1 The steel entering the factory shall check the consistency of the certificate and the stamp and perform the appearance quality inspection. 3.1.1.1.2 Special steel plates (for example, EQ grade steel) and steel plates of a certain thickness (generally 50 mm or more) are tested for flaw detection. 3.1.1.1.3 Steels that need to be transferred to the class should be reclassified. 3.1.1.1.4 The management of steel should be traceable. 3.1.1.1.5 Steel should be stacked in a flat manner according to specifications and grades. 3.1.1.1.6 Special steel plates (eg quenched and tempered steel) should be stored separately. 3.1.1.1.7 Steel shall be issued according to the steel sheet according to the production and processing plan. 3.1.1.1.8 Surface quality inspection shall be carried out before the steel enters the production line.