
Comparative analysis of technologies for lifting and mounting heavy equipment in the renovation project Achinsk oil refining plant

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In accordance with the Energy Strategy of Russia until 2030, the most important goal in the development of the energy sector is to increase the production and export of energy with a high degree of processing, conforming to modern environmental standards. Deep technological modernization and reconstruction of domestic oil refining plants is required to increase the depth of oil refining and to improve the quality of oil products. Reconstruction of an oil refining plant is a unique engineering project. Oversized heavy cargo transportation, lifting and assembly of heavy equipment are required for its implementation. This paper presents a comparative analysis of technologies used for lifting and installation of heavy equipment for reconstruction project of Achinsk oil refining plant. The calculation of efficiency indicators of the traditional system based on crawler cranes Liebherr LR 11350 and innovative hydraulic self-erecting strand jack gantry B-Set based on jacks HLS8500. Conclusions about the benefits of B-Set for the reconstruction of oil refining plant are made and the outlook for its use in other industries is presented.

Keywords: refinery, reconstruction, heavy equipment, oversized heavy cargo, hydraulic strand jack, hydraulic self-erecting strand jack gantry, crawler crane.

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