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A SELF-REGULATING JACKING SYSTEM

ABSTRACT OF THE DISCLOSURE

The invention relates to mobile offshore jack-up structures and provides for a self-regulating jacking system for elevating and lowering of the legs and the hull. A central controller assembly regulates movement of each of the legs, depending on the relative speed of movement of each leg and inclination of the hull along two independent axes: forward-aft and starboard-port. Each chord of the supporting legs is inverter driven to ensure a bi-directional full rated torque control of the associated pinion assemblies at very low speeds. By regulating the relative speed of the leg vertical movement, the system monitors the hull inclination within allowable limits and prevents an excessive differential vertical travel of any of the leg chords, thereby minimizing a possibility of leg bending or jamming of the screw jacks of the jacking assemblies 30.

Please see Figure 1