ELECTRONIC CONTROL OF ENERGY STORAGE WORKOVER RIG

The simulation of the super-capacitor energy storage control for electric workover rig is executed. The results verify that the presented control method is correct, feasible and effective. While ???

The conventional oil workover rig generally adopts Diesel Driven, and energy consumption is big, and efficient is low, and causes environmental pollution.Electric workover rig has the energy utilization rate height, consumes for a short time, and advantages such as environmental protection have become the developing direction of workover rig power set, and the conveying ???

A kind of double power vehicle-mounted workover rig order to the transmission efficiency overcoming the existence of existing diesel well workover equipment is low, fuel consumption cost is high, the problems such as environment pollution is serious, and the deficiency that single electric power workover rig power is little, operating efficiency is low, chassis vehicle driver's ???

6.Flexibility and Integration: Fully electric workover rigs can integrate with other renewable energy sources and energy storage systems. For example, solar panels or wind turbines can provide electricity to charge the rig's batteries, making them even more sustainable and reducing dependence on the grid.

Workover Rig is known as the Workover the different types of rigs include the offshore and onshore Rig that range from 150 horsepower to 1000 horsepower. Workover rigs have a surface depth that is equipped with diesel engines and transmissions and is available from 8000 ft to 30000 ft. Workover rigs contain a full line of drilling packages.

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Water Systems supplies complete range of onshore drilling rigs, offshore drilling modules, workover rigs and related drilling package, with drilling depth of 1000m to 12000m (350HP to 4000HP). World's leading supercapacitor energy storage technology to optimize the power system; Electronic Control System???Main Functions.

In response, workover rig manufacturers have made significant advancements in designing rigs that are more environmentally friendly and safe. One key area of innovation is the development of lightweight and modular rigs. Traditionally, workover rigs were large and heavy, requiring significant time and effort to assemble and disassemble.

Here are the key features of workover rigs: Key Features: Components: Workover rigs typically include a hoisting system, a control panel, and various tools for well intervention. Unlike drilling rigs, they may use a smaller, more compact design. Mobility: Workover rigs are often truck-mounted or trailer-mounted, allowing for easier

The results are apparent within Key, as well. The company measured operations on rigs with and without the new technology and found a 50% reduction in safety incidences on KeyView equipped rigs compared with traditional rigs. All those gains can"t be credited to the mechanical and electronic aspects of the system, Weinheimer said.

the energy eciency of individual DPS-powered rigs by introducing energy storage systems (Fig. 1). The use of energy storage systems in well drilling will reduce the costs of powering self-contained facilities due to the following benets: 1. Capital costs of powering drilling rigs are reduced with removal of one or two 1 MW DPS (of 4???5 typically

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Therefore, an electric workover rig power compensation system (PCS) is proposed to solve these problems, and supercapacitors energy storage is used to resolve the power limitation of ???

Briefing: Electric energy storage workover rig is an integration of application network and electronic technology, super capacitor energy storage and guy line technology, with optimized workover dynamic output and reasonable matching grid power compensation. Compared with conventional disel workover rig, the energy saving rate of electric energy storage workover rig ???

A technology of electric workover rig and main motor, applied in the direction of electrical components, circuit devices, emergency power supply arrangements, etc., can solve the ???

A kind of electric energy-stored workover rig of wide speed regulating range is used for oil well repairing operation, including transmission system, electric-control system and liquid air-channel system, wherein? 1/4 ?Transmission system includes sequentially connected variable-frequency motor, shaft coupling, gearbox, transmission shaft, right angle gear box, winch, traveling ???

The invention provides an alternating current bus electronic control system of an electric workover rig. The alternating current bus electronic control system comprises an energy storing battery, a bidirectional direct current/direct current (DC/DC) converter, a pulse-width modulation (PWM) grid-tied current converter, a super capacitor, a one-way DC/DC converter, a frequency converter

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Remote operations allow operators to control key functions from a safe distance, lowering the risk of accidents and injuries. Electric and Hybrid Rigs: Some manufacturers are developing electric and hybrid workover rigs that use cleaner energy sources to power rig operations. These rigs not only reduce emissions but also lower operating

A wealth of workover systems to extend the production life of any oil and gas well, from an oilfield services expert. Find your optimal workover solution today. Contact Us; Careers; Investors; BKR; Featured Solutions. Energy Transition Energy technology to help the industry advance on the path to net-zero Carbon Capture, Utilization

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The utility model relates to a remote intelligent control system of a workover rig, namely, the intelligent operation of the workover jig is realized through a remote intelligent control program. A programmable program controller is connected with a brake control unit, a drum clutch control unit, a diesel oil throttle control unit, a drum absolute value encoder, a travelling block hook ???

A constant power control system based on Serial communication between a programmable logical controller (PLC) and a converter is put forward for high efficiency of oilfield workover rigs and for

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Abstract: In view of the demand for the electrification of workover equipment and the limited popularization of common electric workover rigs, a workover rig was developed with electric energy storage by lithium iron phosphate battery.The problems such as the control of the grid and electrical energy storage, battery management, safety in the oil and gas environment, ???

Product features . Efficient:Integrated automatic equipment and unified control to ensure accurate movment and smooth connection.Fast moving design reduce around 60% transport unit.And the installation time is only 2 hours.. Safe:Adopt VFD electric drive and PLC control system, the control is accurate,sensitive and timely feedback,. Automated monitoring and warning can be ???

A super-capacitor energy storage type electric workover rig comprises an automotive chassis special for the workover rig, wherein an air compressor, a hydraulic station, an electric control chamber, a derrick and a workover operating room are installed on the automotive chassis special for the workover rig, the rear end of the derrick is hinged to the top of an inverted triangle ???

Compared with conventional disel workover rig, the energy saving rate of electric energy storage workover rig is 87.3%, the energy consumption of single well of electric energy storage workover rig can save 86.7%, moving efficiency increased 37.5%, factory environmental noise? 1/4 ?65dBA, comprehensive workover cost decreased 20%.

In this paper, an advanced energy-saving petroleum machinery, the hydraulic energy-recovering workover rig, is researched. The equipped power of this rig is only one third of an ordinary rig, and this rig can also recover and reuse the potential energy which is released by the pipestring when lowered. The special working theory of this rig is introduced. An energy ???

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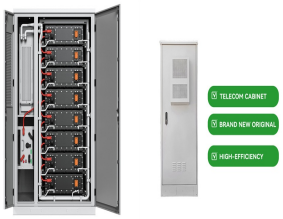

The new workover rig combines frequency control with super capacitor energy storage technology. Under the condition of low voltage distribution (50 kVA/400 V) of the existing pumping unit, the super capacitor is used as the energy storage component to charge during the workover interval of the workover rig and discharge during lifting, so as to

Product introduction Environmental protection: "zero emission" of workover operation; Worry-free power consumption: make full use of the grid power of well site pumping unit to realize continuous operation while charging; Safe and efficient: integrated design, PLC control, automatic monitoring, linkage and interlocking; High automation: one-button automatic pipe transport, automatic pipe

On the other hand, workover rigs play a vital role in maintaining and servicing existing wells, ensuring their continued productivity and longevity. When evaluating the choice between a drilling rig and a workover rig, factors such as the scope of work, well condition, project timeline, and cost implications must be carefully considered.

A kind of electricity-saving energy storage drives pulling type workover rig ??? workover rig electric energy storage box connection electricity Prior art date 2017-06-06 Legal status (The legal status is an assumption and is not a legal conclusion. Google has not performed a legal analysis and makes no representation as to the accuracy of