

New Bentec pipehandling systems working fine on Deutag land rigs

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BENTEC GMBH DRILLING and Oilfield Systems, a Deutag Group company, with its headquarter in Bad Bentheim, Germany, has developed 2 new pipehandling systems which are designed for land as well as for offshore application.

Both systems are easily retrofit able into existing drilling rigs.

The Bentec Mechanized Catwalk System (MCS) has been newly developed for **Deutag International** and has been installed on T-43 in Venezuela.

Arend Lödden, Deutag International's Equipment Manager explained: "The MCS is a State of the Art System to increase the safety and efficiency of our rig fleet in Venezuela."

Bernhard Börgeling, Equipment Engineer with Deutag International and Project Manager was present when Bentec installed the prototype on location. "From the beginning the Bentec MCS performed well and we are glad to have such a system on our rig."

A second Bentec Mechanized Catwalk System has been build for **Deutag Europe** and is used in the Netherlands on Rig T-52.

According to **Klaus Mix**, Equipment Engineer with Deutag Europe, the MCS is "more than satisfying, especially when it comes to safety and operational performance."

Bentec's Mechanized Catwalk System simplifies and speeds the handling of drill string or casing from the pipe rack to the drill floor and vice versa. The automatic lifting of the drill string on the catwalk to the height of the drill floor enables the drill string to be picked up directly by the elevator when making up connections. Time consuming intermediate storage of drill string in the mousehole is eliminated.

Bentec's Mechanized Catwalk System reduces the number of steps involved. Faster transfer of pipes from the rack to the drill floor is the result.

The feeding in and slinging of drill pipe and casing is carried out semi-automatically by Bentec's Mechanized Catwalk System. Personnel on the drill floor monitor and control Bentec's Mechanized Catwalk System. Risk to personnel is reduced by eliminating manual drill string handling.

By varying the distance from the rig substructure, the Bentec Mechanized Catwalk System can be adjusted over a wide range to match the transfer height of the elevator. This simplifies transfer to the elevator and reduces the work involved.

Bentec's Mechanized Catwalk System is designed



Mechanized catwalk system: The Bentec-designed mechanized catwalk system aims at simplifying and speeding the transport of drillpipe or casing from pipe rack to drill floor.

for easy installation above well heads up to a height of 2 feet. It can therefore also be used on cluster locations. Bentec's Mechanized Catwalk System is equipped with hydraulic wheel-sets. It can therefore be lifted hydraulically as a complete unit for skidding. A crane is no longer needed to move the machine.

Moving Bentec's Mechanized Catwalk System only involves dismantling the side mounted lifts, by splitting the Bentec Mechanized Catwalk System into two transportable units. Screw-bolt-type-connections guarantee fast and easy assembly/dismantling.

Bentec's Mechanized Catwalk System is an electronically driven system and has the advantages of easy steering, no leaks and a low noise level.

MECHANIZED DERRICKMAN

Another new product, Bentec's Mechanized Derrickman System (MDS), has been developed for Deutag Europe and is already installed into the Rig T-46. **Hermann Kamphorst**, Superintendent T-46, said, "The MDS could be easily installed under the monkey board to perform the ergonomic features of the Derrickman to reduce the physical handling of tubulars. The system performed well and handles the tubulars in a very safe way. The complete rig crew is very happy to have this system installed and a training took only a short time since the system is so easy to operate."

The work carried out by the derrickman on the monkey board located around 25 m above the drill floor is associated with high risks. He has to lean out over the drill floor when making up and uncoupling the drill string, and manoeuvre the stand with the help of a chain and a small winch. This demands a great deal of strength and alertness. The Bentec Mechanized Derrickman System considerably simplifies this work. Mechanical tongs grab the stands and transport them safely to and from the rotary table. This reduces accidents on the monkey board and avoids damage and drilling shutdowns.

The stands are safely grabbed by the Bentec Mechanized Derrickman System. The stands are also safely held in place during power failures—another feature which avoids damage to the derrick and the drill string. If the system fails, operations can be continued manually without using this tool.

The position of Bentec Mechanized Derrickman System is known at all times. If a Bentec Anti-collision System (ACS) is available, the 2 systems (MDS and travelling block) can be mutually locked on. This prevents any collision between the travelling block and the Bentec Mechanized Derrickman System.

The Bentec Mechanized Derrickman System consists of one independent unit installed below the monkey board. The monkey board's middle platform must be capable of supporting this load.

ABOUT THE AUTHORS

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