



CLAXTON NT-2 RISER HANDLING TOOL CUTS TIME AND IMPROVES SAFETY.

Claxton-designed handling tool significantly enhances safety and reduces running time.



Claxton has developed a new hydraulically operated riser handling tool that helps users to run subsea and surface drilling risers more quickly and with greater safety. In the tool's first outing on a project in the Norwegian North Sea, when it was used to install and pressure test a 6000-psi riser, four and a half hours was cut from each run. As the riser had to be retrieved and rerun several times during the drilling of each well, the total saving amounted to \$2.9 million over the five-well campaign.

The tool is designed specifically to handle and pressure test the riser top tension joint together with its quick connector (commonly a Vetco Gray NT-2) to the blowout preventer (BOP). The tool is automatically locked onto the connector in seconds using a dedicated ATEX-approved hydraulic power unit with its own umbilical. Visual indicator rods confirm that the tool is firmly attached. There is also a manual override device to lock and unlock the tool, should this be necessary.

The motive for introducing the new tool was to overcome the difficulties that Claxton often encountered when using a conventional, heavy-duty, segmented handling tool to pressure test a complete riser system at the same time as holding the string under tension.

With the support of one of its clients and mindful of a Norwegian directive that requires phasing out of manual riser handling tools whenever practical, engineers at the company decided on a return to the drawing board.



The following nine months saw the evolution of the new hydraulic tool, which involved a series of design reviews, prototyping, testing and certification. The new tool is DNV-approved; verified in accordance with DNV-OS-E101 and API 16F, 6A, 8C and 7G, and meets all the relevant Norwegian petroleum industry's NORSOK standards.

Using the tool, which is 3.5m long and weighs 5.1 t, it is possible to pressure test the top tension joint to 7000 psi while holding a tension in excess of 300 t (flanged and quick-connect systems are available to enable pressures of 12,200 psi to be achieved). The tool also provides a contingency for applying 400 t of tension to the riser system once it is landed on the wellhead but before installation of the BOP, though in this case with no internal bore pressure. The tool can cope with riser joints up to 12m long and weighing up to 20 t.

The new tool also handles riser tension joints already fitted with a Claxton slimline tension ring, which saves rig time and reduces personnel exposure on the

Texas deck. It also avoids the need for scaffolding, which is often required for operator access when using a manual tool to handle the riser tension joint with its BOP connector. This not only saves time but also makes the handling operation less hazardous. Another significant feature of the tool is that it provides protection to the expensive BOP quick connector, especially its top seal profile, during running operations. The

seal region is enveloped by the tool, thereby reducing the chances of damage through mishandling or from dropped objects.

Claxton is now offering the hydraulic tool to all of its riser clients as part of a company-wide drive for better efficiency and safety. The value of the tool is perhaps best illustrated by the fact that two leading operators have recently purchased tools for their own inventories.



The riser handling tool has a dedicated hydraulic power unit.

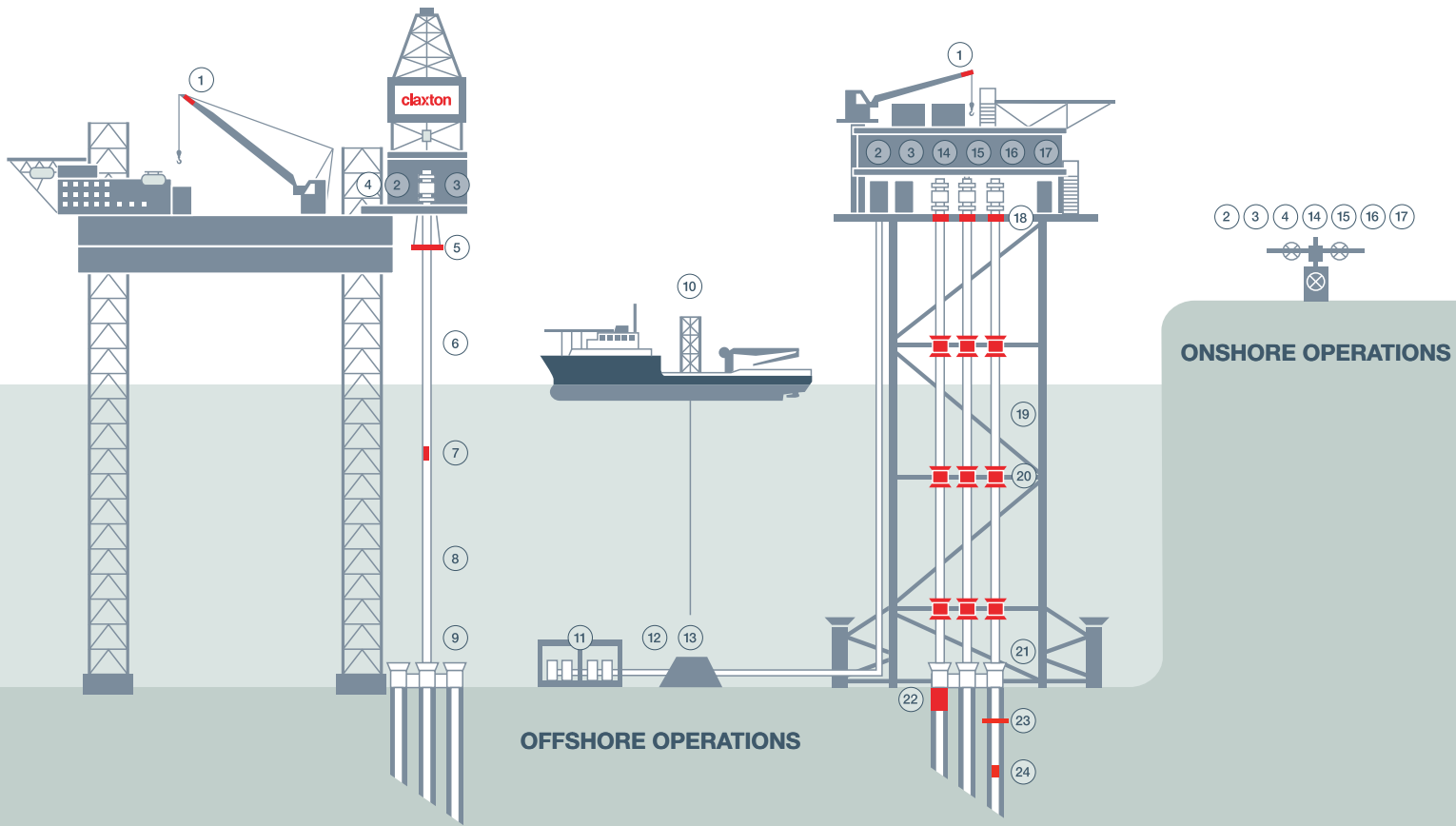
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“The NT-2 handling tool recently saved \$2.9m in rig time on a Norwegian drilling campaign”

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