



ENSURING SUBSEA ASSET INTEGRITY WITH PROTECTIVE STRUCTURES FROM CLAXTON.

Claxton structure modification and running tools enable smooth installation.



THE PROBLEM

You would be forgiven for thinking that there is not much to get excited about when it comes to protective structures. These are, essentially, a cage placed on the seabed to prevent damage to equipment from fishing activities or dropped debris.

However, as Claxton has proved on a project for Senergy, with the right mix of experience and equipment it is possible to add real value to both the structure and the installation process. Claxton was contracted by Senergy to utilise a structure that had been designed and fabricated for a previous project.

The structure, weighing some 5570 kg with a footprint of 3.8 m² and standing 3.1m tall, was originally built to protect a Vetco SG1 wellhead in Dana's Scolty field. After modification, the structure would again be used for Dana, but this time on a Dril-Quip SCS wellhead on Platypus field Well 48/1a-5, in some 43m of water.



The structure en route to the rig.

THE SOLUTION

To accommodate the new wellhead, Claxton fully refurbished the structure and lowered the landing ring. The specification also called for chemical inhibitor sticks to be fitted inside the structure. These sit just inside the wellhead profile and release chemicals that create a protective environment inside the wellhead to reduce corrosion.

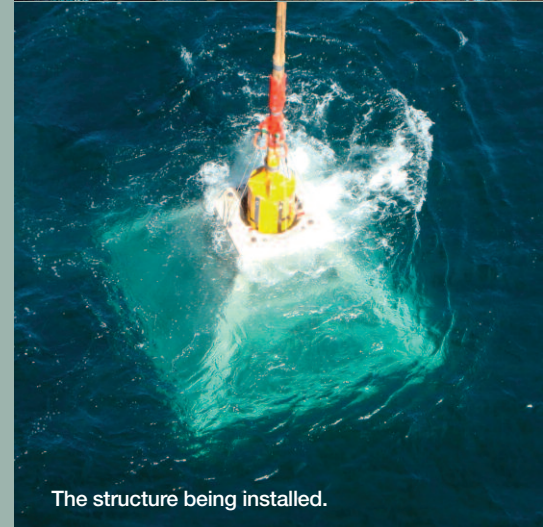
Additionally, Claxton fitted an array of its proprietary cameras to the structure. MULTICAM™ units, which were specifically designed to monitor installation processes, were mounted to observe the wellhead guide -cone at the base of the structure. An additional camera provided a view of the engagement and disengagement of the J-slot running tool.

The structure was fitted with extension legs activated by a sling sub arrangement. The sling sub would operate when the structure's running tool was disengaged to enable the extension legs to drop onto the seabed and remove the potential for fishing nets to catch on the corners of the structure.

The protective structure was installed from the Transocean Labrador. The total operation from rig up to installing the structure and rigging down was completed in just seven hours. It was here too that a Claxton tool added significant value to the procedure. Claxton's jet sub was installed on the running equipment to enable adjustments to be made during installation using a high-pressure water jet to either offset currents or guide structures into position.



The running equipment being prepared.



The structure being installed.

THE RESULT

Claxton was able to rapidly modify the structure for Senergy and provide all the appropriate running tools, which enabled smooth installation.

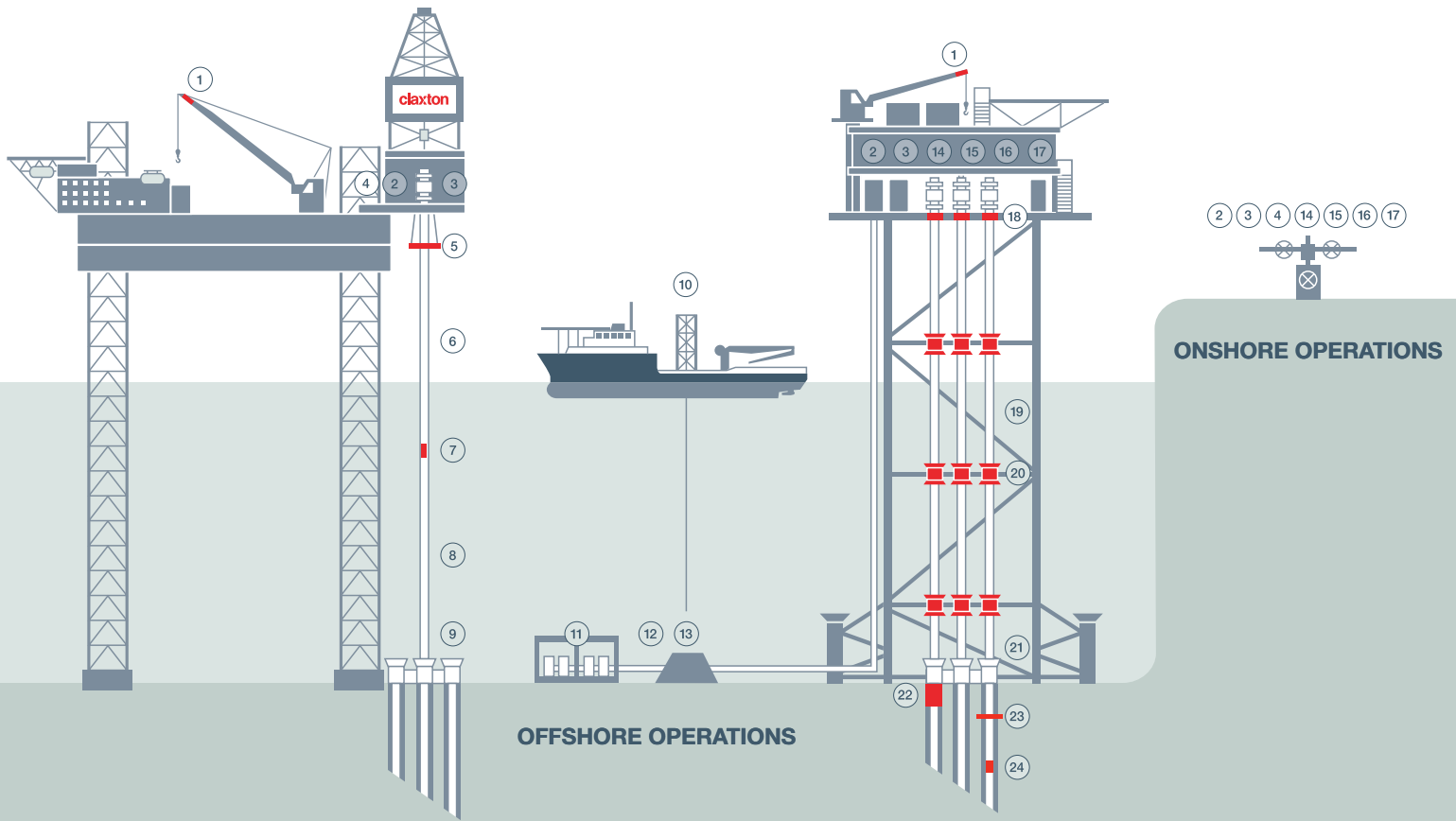
Neil Youngs, project engineer for Claxton, felt the jet sub was instrumental to the smooth installation of the structure: "We used the jet sub to guide the structure between 1.5 and 2m. We were working during a strong spring tide and without the jet sub we would have taken considerably longer to engage the structure over the wellhead."

Neil continues, "We have worked with both Senergy and Dana on previous projects; they have been great partners to work with. So we were pleased to work with them again on this operation and to deliver the structure, modifications and installation in such a timely manner."

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UK HEAD OFFICE

T: +44 (0) 1493 744500
E: info@claxtonengineering.com

ABERDEEN

T: +44 (0) 1224 452371
E: aberdeen@claxtonengineering.com

DUBAI

T: +971 4 8863540
E: dubai@claxtonengineering.com

NORWAY

E: norway@claxtonengineering.com
W: www.claxtonengineering.no

SINGAPORE

E: singapore@claxtonengineering.com
W: www.claxtonengineering.sg