A tensioner unit for an umbilical system on the deck of a vessel was required to be mobilised in 6 different configurations: 8” riser recovery, 10” riser recovery, 10” static installation, 6” static installation, 8” riser installation and 10” riser installation. Various packers were proposed in order to adjust the height of the tensioner unit in order for it to align tangentially with the fixed gooseneck, with each pipe diameter requiring slightly different packer thicknesses.

A system capable of jacking the full frame and tensioner was preferred, as this could be lifted vertically (lifting only the tensioner would result in non-vertical lifting), however the tensioner and frame together were estimated to weigh around 75Te.

Equalizer International were approached by a project management consultancy working for a subsea client on a forthcoming mobilisation project. Equalizer’s precision lifting expertise was called on to help find a solution to a technical problem that they faced.
TRADITIONAL METHODS

There was not sufficient gap between the beams (at the lowest configuration) to fit traditional bottle-jacks, and there was a reluctance to weld any additional parts onto the framework to aid with jacking. Traditional rigging methods were likely to be too time-consuming, as the work had to be done quickly while the vessel was docked between mobilisations.

EQUALIZER SOLUTION

The Equalizer VLW18TE was selected as the ideal tool for the project. Four Maxi-kits were hired for the project, providing a total of 8 tools, or $144T$ of lifting capability.

Custom stepped-blocks were designed and manufactured for the project, with the steps exactly sized to suit the individual stages required to install and remove the specific packers for each mobilisation. These exactly corresponded with the spacer packers placed between the beams, such that the travel of the tool was maximised and the time taken between configurations was minimised.

CUSTOMER BENEFITS

- Optimised reconfiguration time when vessel is docked
- Sufficient lifting capacity for both tensioner & frame
- Safe, controlled raising and lowering
- No additional fabrication or modification to frame
- Detailed step-by-step storyboard for each stage