

BP “Pompano” - Roll Up of the side frames of the 38,000 tonnes jacket.

Client: BP Exploration, Inc.

Fabricator: McDermott, Inc.



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Above: roll-up at 30° just prior to assisted crane release on to jacking system.

The Pompano jacket is one of the world's largest steel offshore platforms. It stands 402 metres tall on a base that is 128 metres square at the mudline. At load-out it weighed around 38,000 tonnes. It was fabricated for BP Exploration, Inc. by McDermott, Inc. at their Aransas Pass, Texas, yard.

Fagioli PSC were awarded a contract by McDermott, Inc. for the supply on hire and operation of a jacking system and associated engineering services, first for the roll-up of the lower sections of side panels, from the mudline elevation - 391 metres to elevation -190 metres, and later for the load-out of the complete jacket onto its transportation barge.

The roll-up method of jacket fabrication is well established. Fabricators gain great benefits by constructing the sides of jackets as flat panels on the ground and then rolling them up to the vertical. With structures approaching the size of Pompano, the benefits of roll-up method involving cranes will be eroded because



Top: jacks in tension frames sling connected to outer edge of panel.

it becomes necessary to divide the panels into many smaller pieces. By using Fagioli PSC strand jacks as the primary lifting method the benefits of rolling up large panels can be maintained. Additionally, in comparison to the crane method the Fagioli PSC jack system can provide better control of the deflection of panels and greater security against the risk of high winds during prolonged operations.

For the Pompano roll-up eight Fagioli PSC L600 jacks, in tension frames, were fastened by slings to the outer edges of each panel. Cables from the L600 jacks were connected to the highest nodes of the jacket inner core,



which had already been fabricated in-situ. Eleven heavy crawler cranes were arranged along the outer edge of each panel.

Cranes and jacks worked in unison initially to lift the panels from the horizontal. Then, from an angle of 5 degrees from the horizontal, cranes were successively detached until, at an angle of 30 degrees from the horizontal, the load was taken entirely by the Fagioli PSC jack system. The total combined weight of the two panels was 13,000 tonnes. During the initial lift stage the jack system carried 7,800 tonnes and the cranes carried 2,600 tonnes. At 30 degrees the load on the jack system was 9,600 tonnes.

A secondary Fagioli PSC jack system, which connected the upper edges of the panels back to ground anchors, was brought into action as a breakover restraint when the roll-up reached an angle of 80 degrees. The Fagioli PSC jacking system was remotely operated by radio control which provided continuous monitoring of the piston strokes and pressures of all jacks. This information was shown numerically on the radio control panels and graphically on the data recording computer.