Case Study
XL Systems XLC-S-HS Connector

High Strength Wedge Thread with Flush OD and ID

Operator: Walter Oil & Gas

Region: Gulf of Mexico

Block: Ewing Bank 834

Water Depth: 1,186 feet

Number of Wells: 4

Rig: H&P 203 (Platform)

Background

In late 2016 and early 2017, Walter Oil & Gas installed a total of four offshore conductor drive strings with the H&P 203 rig in 1,186 feet of water. Located in EW Block 834, the Coelacanth is the third tallest fixed platform in the Gulf of Mexico. The large diameter conductor pipe had four primary requirements in this application:

- Fully drivable
- Installation through slightly offset platform guides therefore the OD of the connectors needed to be flush to minimize interference with the rig during deployment
- Connectors required a flush ID due to buckling stabilizers welded to the OD of the smaller 22" inner casing string
- Full pipe body strength and excellent fatigue performance along the length of the conductor, especially closest to the mudline

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Solution

Each 30-inch conductor string utilized the XL Systems XLC-S-HS product - the only threaded connector that could meet all of the requirements. The design is derived from the XLC-S integral flush product and has been run in thousands of pile driving applications around the globe since the early 1990s. XLC-S-HS utilizes the proprietary wedge threadform on high strength forging material that is welded directly to the pipe body, creating a connector solution that is stronger than the pipe in tension, compression, and bending. To maximize performance and minimize risk, we supplied line pipe that is manufactured to technical requirements more stringent than API Specification 5L PSL2 standards.

The only other alternative to XLC-S-HS was to weld the conductor pipe ends together as the string was run in the water. The biggest downside to welding pipe on the rig is time – with NDE (non-destructive examination), the estimated time it takes per joint is 3.5 to 4 hours. In comparison, the XLC-S-HS took an average of 6.82 minutes per connection to make-up.

Pipe Sizes: 30" x 1.50" and 30" x 1.00"
Connector: XLC-S-HS
Number of joints per string: 40
Average make-up time:

- Slot A-2: 9.10 minutes/connection
- Slot A-3: 7.68 minutes/connection
- Slot A-4: 5.67 minutes/connection
- Slot A-7: 4.84 minutes/connection

Results

We supplied a pipe and connector packaged solution to meet the specific technical needs of the customer. All four conductors were installed safely and efficiently and provided Walter Oil & Gas with significant cost savings for the project. The operator has up to four more wells planned in 2017 with XLC-S-HS connectors.

- Spread rate: $180,000/day
- Average time for XLC-S-HS: 6.82 minutes/connection
- Average time to weld pipe (with NDE): 225 minutes/connection
- Time savings with XLC-S-HS: over $27,000/connection (or approximately $1,000,000/string)