

COOEC QUANTUM-8 CASE STUDY

Samson Quantum-8 heavy lift slings help speed installation of offshore jacket

High-performance synthetic slings lift 16,213 metric tons

Weather windows are notoriously short in the South China Sea. They place a premium on efficiency and speed for complex offshore installations like the recent installation of a jacket in the Pan Yu natural gas field by COOEC (China Offshore Oil Engineering Corporation).

The installation engineers of COOEC turned to high-performance synthetic heavy lift slings fabricated from Samson's Quantum-8 for this project. The jacket, installed in March of 2008, was 75m square and 213m high, weighing in at 16,213 metric tons. It was the heaviest lift to date using high-performance synthetic slings. COOEC reports that the slings outperformed either the cable-laid wire or the synthetic webbing slings they had been using. The lightweight, easy handling Quantum-8 slings were attached manually, without the assistance of heavy equipment required by cable-laid or synthetic webbing alternatives, resulting in a faster, more efficient installation.

Gaylin International Pte Ltd. of Singapore fabricated and tested the slings. Gaylin, a Samson master distributor and partner serving the Asia/Pacific market, maintains a significant stock of Samson high-performance ropes enabling them to respond quickly with the fabrication and testing required by COOEC. Design specifications called for 120mm Quantum-8 spliced grommets with protected eyes at both ends, and extra protection for the mid-body of the sling. The slings were ABS witness tested at Gaylin's facilities to 836 metric tons, with a proof load of 245 metric tons.

Samson Quantum-8 is uniquely suited for use in heavy lift slings. This patented 8-strand construction uses Samson's proprietary DPX™ technology combining the extreme strength and light weight of Dyneema® with the high coefficient of friction of polyester. The result is an extremely strong rope that handles and splices easily with increased grip to help hold splices very securely.

Quantum-8 is one of a family of high-performance Samson products designed to replace wire rope size for size with the same or greater strength. Typically weighing in at one-seventh the weight of wire ropes, most of these high-performance lines float or are neutrally buoyant in seawater. The chief advantages are extreme strength, light weight, ease of handling, increased crew safety, and significantly longer service life in tough applications.

Samson designs and manufactures a complete line of high-performance synthetic ropes for the offshore market. Samson's technical sales group works together with the most advanced research and development team in the industry to develop custom engineered solutions for critical offshore applications like deep and ultra-deepwater winch lines, riser pull-in lines, heavy lift slings, working lines, and grommets for critical applications.

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Quantum-8 high-performance synthetic slings lift 16,213 metric tons on COOEC installation. (March 2008)



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