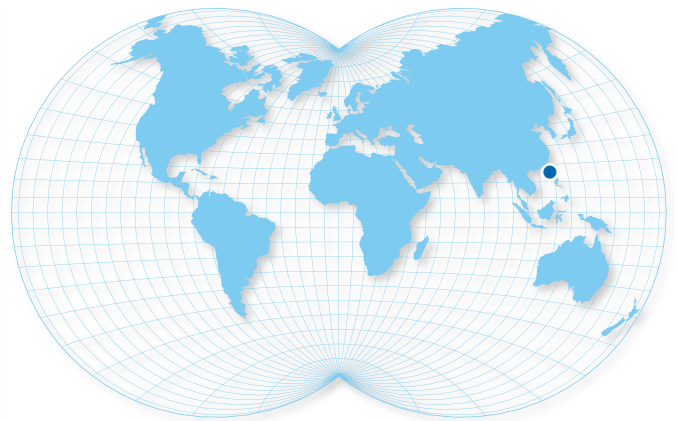


BZ25-1/S FIELD, CHINA:

FPSO HYSY113 Tower Yoke



Scope of Work

SOFEC designed and procured a tower yoke mooring system for the HYSY113 FPSO.

The FPSO, named HYSY113, is deployed in the BZ25-1/S field approximately 150 kilometers southeast of the Port of Tanggu in Bohai Bay and is a replacement for a previously operating mooring system.

The tower yoke mooring system is an interface between the BZ25-1/S wells and the FPSO and will provide for the transfer of well fluids, water injection and provide Medium Voltage power to the well head platforms.

General Description

Client Name:	CNOOC Energy Technology & Services Ltd.
Contract Award:	July 2011
Installation Date:	January 2013
First Oil:	February 2013
Vessel Size:	110,000 dwt

Storage Capacity:	800,000 bbls
Water Depth:	18m (59ft)

Design Environmental Criteria (100-year storm)

Sig. Wave Height:	5.4m (15ft)
Wind Velocity:	28.3m/s (55 kts)
Current:	1.85m/s (3.6 kts)

Mooring System

Tower Yoke Mooring System

Fluid Swivel Assembly

Production	2 x 16 in. Toroid
Production/ Water Injection	1 x 16 in. Toroid
Water Injection	1 x 16 in. Toroid
Gas Import	1 x 10 in. Toroid

(Continued)

Sliprings

Medium Voltage	3 x 3 phase 10.5 kV	3 x 3 phase 10.5 kV
Utility /Control	80 paths	200 paths

Riser System

- 7 Risers - Production and Water Injection
- 3 Umbilicals for medium voltage electrical and controls

Comments

This is the second tower yoke mooring system which SOFEC is operating in Bohai Bay, China. This SOFEC tower yoke mooring system is be DNV classed.