

STYBARROW FIELD, AUSTRALIA:

FPSO Stybarrow Venture MV16 Internal Disconnectable Turret



Scope of Work

SOFEC designed, constructed and supplied a disconnectable internal turret mooring system to moor a 150,000 dwt MODEC-newbuild FPSO in 825m water depth.

This unique SOFEC internal disconnectable turret mooring system is ABS classed.

General Description

Client Name: Contract Award: Installation Date: First Oil: Vessel Size: Storage Capacity: Water Depth: Supply / Fabrication: BHP Billiton Petroleum March 2006 September 2007 November 2007 160,000 dwt 900,000 bbls 825m (2,706ft) Turret – Malaysia Vessel – Korea

Design Environmental Criteria (100-year storm)

Significant Wave Height: Wind Velocity: Surface Current: 6.6m (21.6ft) 20m/s (38.8 knots) 1.1m/s (2.1 knots)

Mooring System

Spider Buoy 9-leg 3x3, chain, wire rope support buoys and drag anchor

Turret

Disconnectable Internal

Fluid Swivel Assembly

Production 1:	2 X 12-in. toroids
	(ANSI Class 1500)
Production 2:	2 X 12 in. toroids
	(ANSI Class 1500)
Test Swivel:	2 X 12-in. toroid
	(ANSI Class 1500)



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(Continued)

Gas Lift:	1 X 4-in. toroid
	(ANSI Class 1500)
Gas Injection:	1 X 4-in. toroid
	(ANSI Class 2500)
Eskdale Production:	1 X 6-in. toroid
	(ANSI Class 2500)

Fluid Swivel Assembly

Water Injection:	1 X 8-in. toroid
	(ANSI Class 1500)
Chemical/Utility:	15 paths X 5000psi
	5 pəths X 10,000psi
Electrical Slip Ring Assembly:	
Low Voltage Power/Signal:	98 paths
Fiber optical Rotary Joint	10 multimode

Riser System

2 x 10-in. Flexible pipe - Production (Provision for 2 x 12-in. future) 2 x 8-in. Flexible pipe - Production 2 x 7-in. Flexible pipe - Production 1 x 6-in. Flexible pipe - Production 1 x 10-in. Flexible pipe - Water Injection 1 x 6-in. Flexible pipe - Gas Injection 1 x 6-in. Flexible pipe - Gas lift 2 x Integrated service umbilical - Subsea Control (Provision for 1x future ISU)

Comments

When a cyclone approaches, the FPSO can easily temporarily evacuate from the field by the unique SOFEC disconnectable internal turret mooring system.