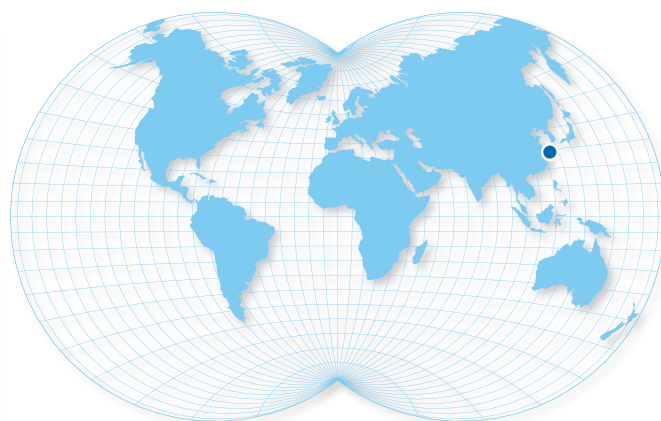


JHN FIELD, PEOPLE'S REPUBLIC OF CHINA:

# FSO Nan Hai Sheng Kai Internal Disconnectable Turret



## Scope of Work

SOFEC designed and constructed an internal disconnectable turret mooring system to moor a MODEC-converted 121,361 dwt FSO vessel in the typhoon alley area offshore People's Republic of China.

The internal disconnectable turret mooring system was chosen so the FSO can disconnect and sail to safe harbour as typhoons approach. The FSO could then return to the field and reconnect after the typhoon has passed.

This SOFEC disconnectable internal turret mooring system is ABS classed.

## General Description

Client Name:	JHN Oil Operating Company
Contract Award:	February 1992
Installation Date:	August 1993
Vessel Size:	121,361 dwt
Storage Capacity:	880,000 bbls
Water Depth:	141m (463ft)
Fabrication:	Turret - Japan

Vessel Conversion - Singapore  
Topsides - Singapore

## Design Environmental Criteria

Connected 5-year Non-typhoon

Significant Wave Height:	8m (26ft)
Wind Velocity:	25m/s (48.6 knots)
Current:	1.2m/s (2.3 knots)

Disconnected 100-year Typhoon

Significant Wave Height:	14.4m (47.2ft)
Current:	2.4m/s (4.7 knots)

## Mooring System

8-leg Wire chain symmetrical catenary:  
3.75-in., 4-in., and 5-in. ORQ chain with excursion limiter  
4-in. 6-Strand wire rope

## Turret

Internal Disconnectable



# FPSO Nan Hai Sheng Kai

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**(Continued)**

## **Fluid Swivel Assembly**

Crude Oil:	1 x 6in piggable in-line (1,480 psi operating/ 2,225 psi test)
Electrical Swivel:	440 volts at 450 amps (3 phase power) 220 volts at 30 amps (3 phase power) 100 volts at 1 ampere (10 data circuits)

## **Riser System**

1 x 6-in. Flexible riser