

FSO CASPIAN SEA



Location	: West Patricia Field, offshore Sarawak
Water Depth	: 40 m
Weather Environment	: Mild to moderate
Field Operator	: Murphy Sarawak Oil Company Limited
Year Built	: 1979
Classification	: Lloyd's Register
Registration	: Liberia
In Service Since	: 15 April 2003
Deadweight	: 104,356 MT

Main Dimensions

LOA	: 243 m
Length BP	: 230 m
Moulded Breadth	: 46 m
Moulded Depth	: 20 m

Basic Design

The vessel was converted into an FSO in 2003 at Keppel Shipyard in Singapore. Conversion included:

- ⤴ Import line, including ESD valve, relief valve, pig valve, and flowmeter
- ⤴ Export fiscal metering system
- ⤴ Quick release mooring system for the FSO and offtake tanker, including load monitoring
- ⤴ Forward and aft CCTV
- ⤴ Steam generator for main engine jacket water warming
- ⤴ New bunker line for receiving and transferring gas oil

In 2009, initial contract was extended and further life extension and upgrade works were carried out at Jurong Shipyard in Singapore. The main upgrade scope of works included:

- ⤴ Increase accommodation capacity from 96 persons:
 - ✱ Install new additional lifeboats
 - ✱ New Sewage Treatment Plant
 - ✱ Additional Reverse Osmosis Water Maker
- ⤴ Increase produced water handling capacity
 - ✱ Installed new produced water and crude oil transfer pumps
 - ✱ Modify piping system in tanks & Pump room
- ⤴ Install new Boat Landing Tower
- ⤴ Modify import line, install pig receiver
- ⤴ Additional Quick Release Hook (SWL 200 tons) for forward mooring system
- ⤴ Telecommunication upgrade



Tank Capacities

Crude Storage @98%	: 692,643 bbls
Slop Tank	: 25,327 bbls
Ballast Tank	: 250,734 bbls



Main Components

Mooring System	: Soft mooring system
Export System	: Tandem and side-to-side



Other facilities

Custody Transfer Meter	: 15,000 bbls/hr
Cranes	: Offshore crane (Electro-hydraulic driven) <ul style="list-style-type: none">– Max. S.W.L. 15 tons at 5m– Max. S.W.L. 10 tons at 20m Electric driven provision gantry crane with S.W.L. 6tons
Accommodation	: 96 persons

Product loading/export

Design loading max. rate	: Through a 8" import
Design export max. rate	: 15,000 bbls/hr