



FPSO

# Maersk Peregrino

Maersk Peregrino is moored at the Campos Basin, 85 kilometers off the east coast of Brazil. It is 345 meters long and operates at a water depth of 100 meters.

Maersk Peregrino has a daily production capacity of 100,000 barrels of oil and holds a storage capacity of 1,600,000 barrels.

Former double hull VLCC Maersk Nova, Dead Weight 308,000 tons, built by Dalian in 2008 and converted to an FPSO in 2010.

<b>Water depth:</b>	100 metres
<b>Storage capacity:</b>	1,600,000 bbls
<b>Oil Production:</b>	100,000 bbls/day
<b>Liquid Production:</b>	350,000 bbls/day
<b>Gas Export:</b>	12 MMscf/day
<b>Water Injection:</b>	300,000 bbls/day

# Main Particulars

## DIMENSIONS

<b>Length overall</b>	345.22 m
<b>Length BP</b>	320.00 m
<b>Breadth moulded</b>	58.00 m
<b>Depth moulded</b>	31.00 m
<b>Draught (Scantling)</b>	20.59 m
<b>Dead-weight</b>	277,450 dwt

## CAPACITIES

### Oil Production

100,000 bop/d stabilised to TVP 10.9 psia @ 60 °C to tanks, BS&W 0.5 % in two 50 % trains.

### Gas Processing

12.9 MMscf/d of dried gas for fuel gas.

### Produced Water

233,000 bwp/d @100ppm and 40 micron for export and 29 ppm or better for disposal.

### Flare system

23.54 MMscf/d emergency or 15.83 MMscf/d continuous flaring through a sonic flare tip on a 60 m high flare tower.

### Power Generation

Main 3x24 MW steam turbines, 3x1200 kW aux. and one 1825 kW emergency diesel driven.

### Fire water

Three 100 % fully enclosed diesel driven fire water pumps delivering 2500 m<sup>3</sup>/h @ 14 bar each.

## CAPACITIES, TANKS @ 100% CAP.

<b>Crude storage</b>	324,194 m <sup>3</sup>
<b>Ballast</b>	99,639 m <sup>3</sup>
<b>Slops</b>	7,343 m <sup>3</sup>
<b>Fresh water</b>	875 m <sup>3</sup>
<b>Liquid fuel</b>	8,431 m <sup>3</sup>

## MOORING

- The Submerged Turret Production (STP) mooring system allows the FPSO to weather-vane freely through 360° without assistance from thrusters in response to external environmental conditions.
- The mooring system is designed to transfer all mooring forces from the turret to the FPSO structure. It is also designed to allow for unrestricted passage of fluid, power and control paths between the FPSO and the sea floor and to allow crude offloading to the tanker which is moored in tandem to the FPSO.
- The swivel stack consists of individual swivel modules, each module comprising a stationary part and a rotating part supported by bearings.
- Risers, which connect the FPSO to the well head platforms via subsea flowlines, and umbilicals, for power and communication and control, are tied in to the STP buoy.

## TOPSIDE

- Peregrino crude is highly viscous with an API of 14° and must be heated to 75 degrees Celsius to remain pumpable.
- This heating is provided by steam from the original ships boilers and three new topsides boilers. The steam plant provides power for the FPSO and both wellhead platforms from three steam turbine/ generators capable of producing 72 MW of electric power.
- The output from the topsides process facilities is crude oil which is stored in heated cargo tanks until being offloaded to shuttle tankers
- The topsides process facilities are two duplicated 50% process trains with a common produced water degasser.

## OTHER

### Accommodation

100 persons

### Main lifesaving

Two 100 persons lifeboats – Fiberglass reinforced plastic, totally enclosed type. Fresh water cooled diesel engine with possibility of emergence starting device.

### Helideck

Sikorsky S-92

### Cranes

Three pedestal cranes with lifting capacity of 50 t @ 60 m reach. One pedestal crane with lifting capacity of 15 t @ 40 m reach. One provision crane with lifting capacity of 10 t @ 17 m reach.