

Specifications

The FPSO main features

Built as Floating Production Storage and Offloading unit (FPSO) in 2008.

Suitable for extreme harsh environmental conditions due to hull strength with double capacity relative to standard Aframax tankers and additional brackets throughout hull structure and fully bracketed forward region.

Operation under UK Safety Case.

ISO 14000 compliant with low environmental impact providing low NOx power generation, ultra low oil-in water produced water clean-up, maximum waste separation.

Dedicated spaces foreseen for additional modules and power/utility capability increases.

General

Port of Registry	Curaçao, Willemstad
Flag state	Netherlands Antilles
Converted to FPSO	Sembawang shipyard Singapore 2006-2008
Classification society	DNV-GL
Class Notation	+1A1, ship shaped oil production and storage unit, HELDK-SH-CRANE, EPR, ECO, F-AMC, OFFLOADING (stern), DYNPOS-AUT, POSMOOR

Principal dimensions

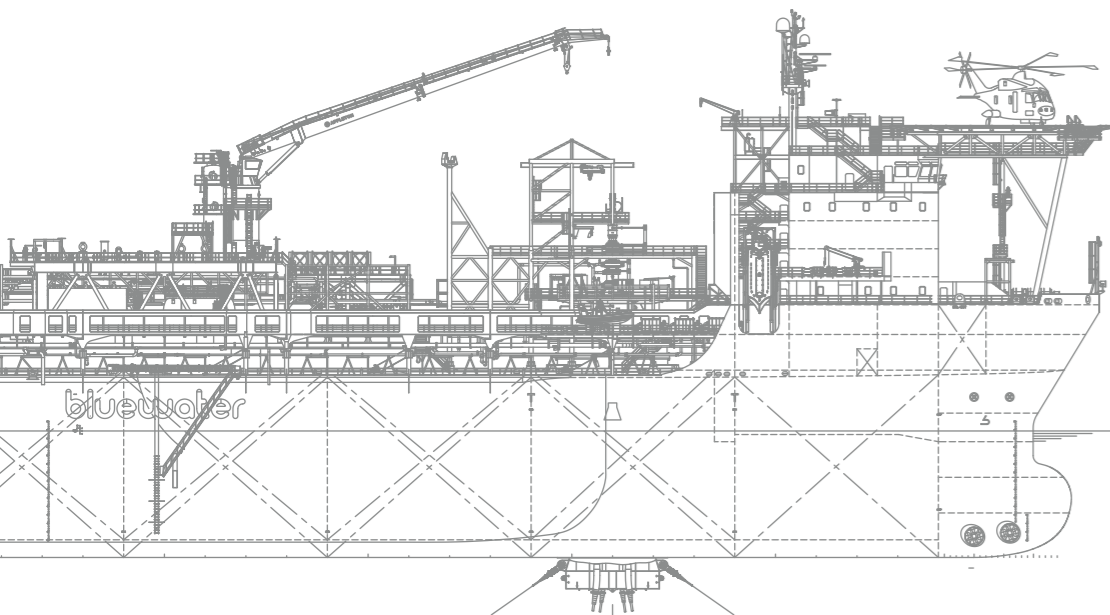
Deadweight [Tonnes]	89,184
Hull type	Double hull Aframax size suitable for Norwegian Seas
Dynamic Positioning	DP1
Storage capacity excl slops	604,478 bbls (96,112 m ³) in 11 Cargo storage tanks (98%)
Offloading	Tandem offloading
Accommodation	84 persons
Helicopter deck	Suitable for Sikorsky S-61 and N/EH 101

Topsides data

Total fluids capacity	35,000 bpd
Crude production	30,000 bpd
Produced water	20,000 bpd
Water injection	55,000 bpd
Seawater treatment	55,000 bwpd
Gas compression	2 x 22.2 MMscfd
Gas treatment	35 MMscfd (dehydration)
Material selection	NACE MR 01-75
Power generation	2 x 10 MW Gas turbine 2 x 5.4 MW Diesel Generator
Topsides motor drives	Electric

Turret mooring data

Turret type	Disconnectable internal turret 3x3 mooring system
Number of riser slots including umbilicals	11



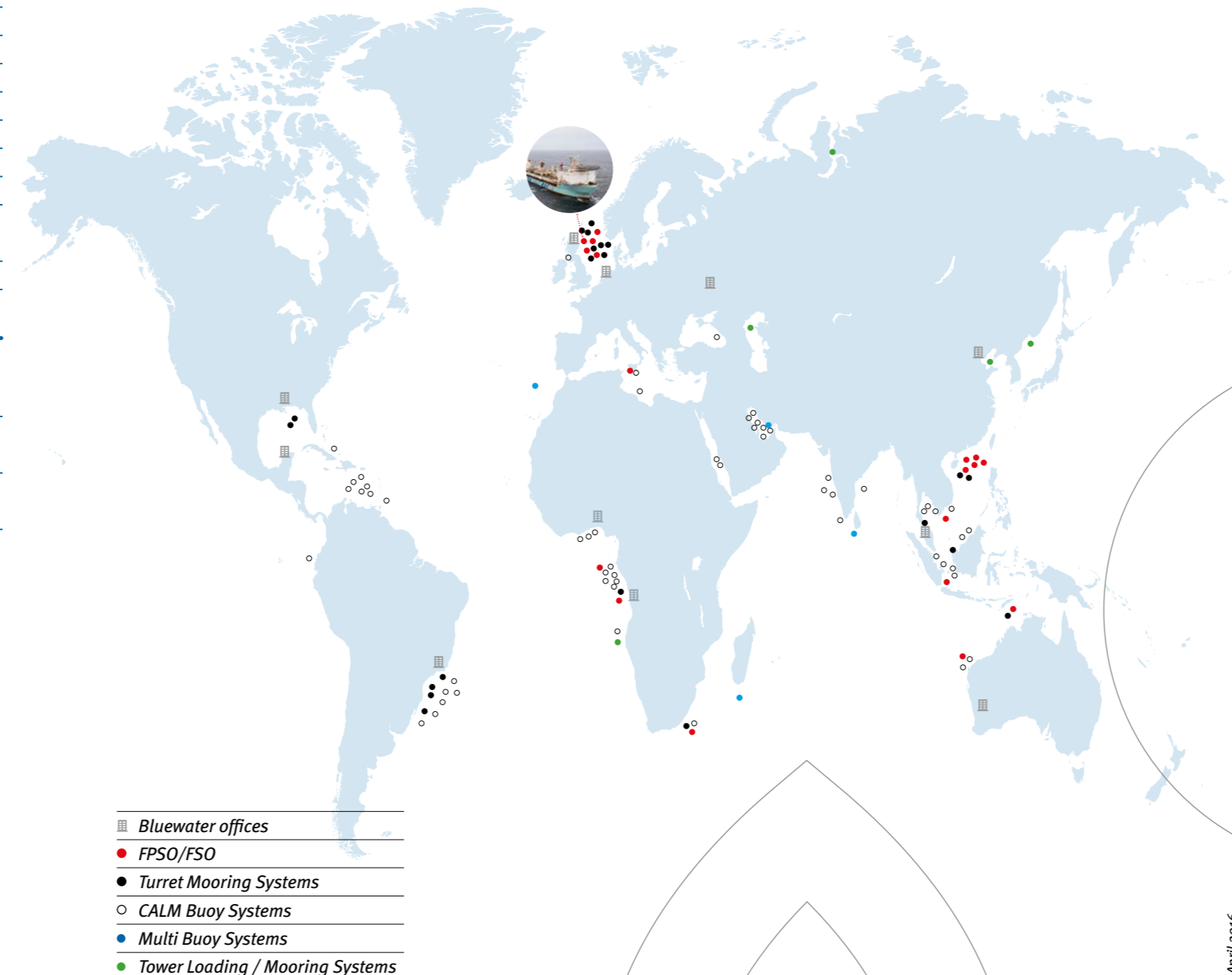
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FPSO Aoka Mizu

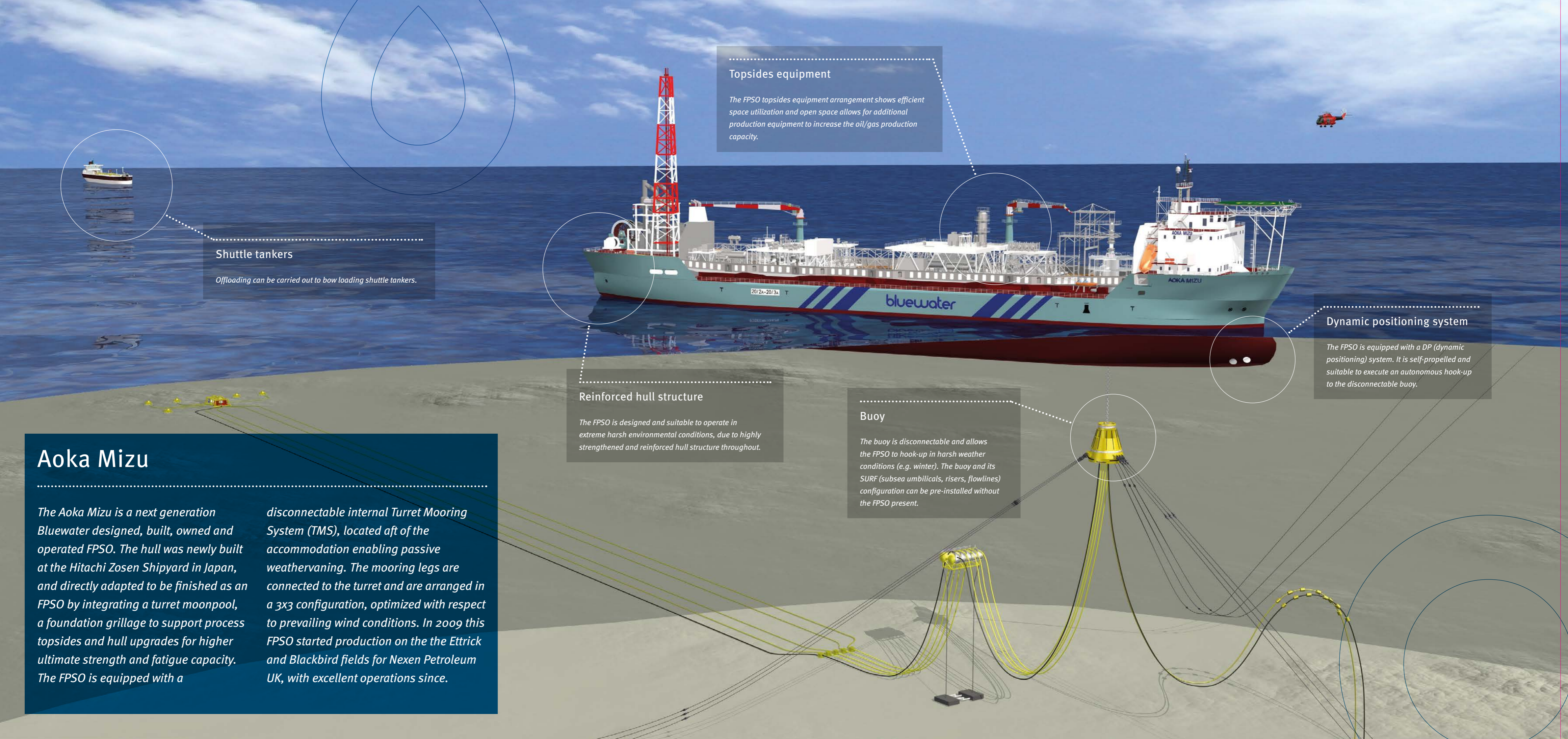
References



- Bluewater offices
- FPSO/FSO
- Turret Mooring Systems
- CALM Buoy Systems
- Multi Buoy Systems
- Tower Loading / Mooring Systems

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Topsides equipment

The FPSO topsides equipment arrangement shows efficient space utilization and open space allows for additional production equipment to increase the oil/gas production capacity.

Shuttle tankers

Offloading can be carried out to bow loading shuttle tankers.

Dynamic positioning system

The FPSO is equipped with a DP (dynamic positioning) system. It is self-propelled and suitable to execute an autonomous hook-up to the disconnectable buoy.

Reinforced hull structure

The FPSO is designed and suitable to operate in extreme harsh environmental conditions, due to highly strengthened and reinforced hull structure throughout.

Buoy

The buoy is disconnectable and allows the FPSO to hook-up in harsh weather conditions (e.g. winter). The buoy and its SURF (subsea umbilicals, risers, flowlines) configuration can be pre-installed without the FPSO present.

Aoka Mizu

The Aoka Mizu is a next generation Bluewater designed, built, owned and operated FPSO. The hull was newly built at the Hitachi Zosen Shipyard in Japan, and directly adapted to be finished as an FPSO by integrating a turret moonpool, a foundation grillage to support process topsides and hull upgrades for higher ultimate strength and fatigue capacity. The FPSO is equipped with a

disconnectable internal Turret Mooring System (TMS), located aft of the accommodation enabling passive weathervaning. The mooring legs are connected to the turret and are arranged in a 3x3 configuration, optimized with respect to prevailing wind conditions. In 2009 this FPSO started production on the the Ettrick and Blackbird fields for Nexen Petroleum UK, with excellent operations since.