

Specifications

The FPSO main features

The Floating Production Storage and Offloading unit (FPSO) has a strong, reliable and high capacity turret, field proven for North Sea conditions. The process equipment is suitable for a wide range of oil products, from condensate to heavy oil types, suitable for high CO2 content, thanks to the outfitting of exotic materials (duplex).

The hull is strengthened for lifetime extension. Offloading can be carried out to conventional tanker and/or shuttle (bow loading) tanker.

Accommodation is made fit for tropical conditions. The Glas Dowl has a large lay down area with cranes at both sides of FPSO.

Presence of Fast Rescue Crafts at both sides reduce necessity of vessel support.

General

Port of Registry	Curaçao, Willemstad
Flag state	Netherlands Antilles
Converted to FPSO and upgrades	Harland and Wolff (Belfast), Heerema (Hartlepool) - 1996/1997 Verolme Botlek (Rotterdam), SA-Five (CapeTown-2002 Sembawang-2010)
Classification society	LRS
Class Notation	Ol 100 AT, Floating Production and Storage Installation for service area Kitan Field, OIWS, LI, OMC, IGS

Principal dimensions

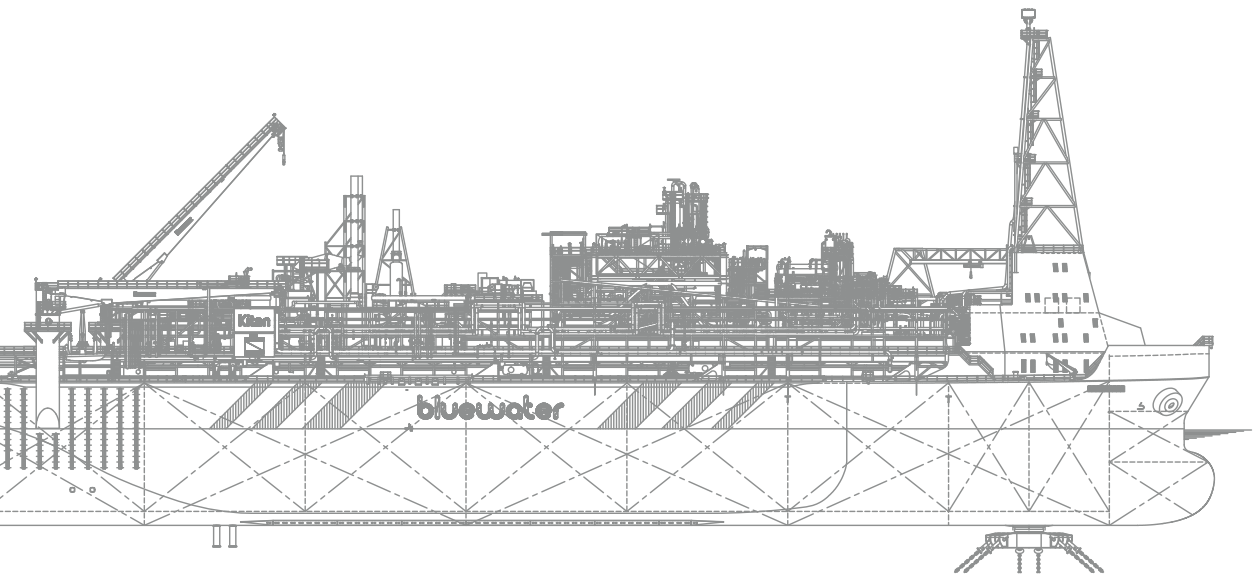
Deadweight [Tonnes]	89,384
Hull type	Double hull Aframax size suitable for North Sea
Dynamic Positioning	No
Storage capacity excl slops	660,000 bbls (105,181 m³) in 13 Cargo storage tanks (98%)
Offloading	Tandem offloading
Accommodation	80 persons
Helicopter deck	EH101 max 14290 kg D value 22.8 m

Topsides data

Total fluids capacity	75,000 bpd
Crude production	60,000 bpd
Produced water	65,000 bpd
Water injection	85,000 bpd
Seawater treatment	85,000 bpd
Gas compression	4 x 13 MMscfd
Gas treatment	22 MMscfd (dehydration)
Material selection	NACE MR 01-75
Power generation	4 x 5.2 MW Gas Turbine 1 x 6.3 MW Diesel Generator
Topsides motor drives	Electric

Turret mooring data

Turret type	Internal turret with 3x3 mooring system
Number of riser slots including umbilicals	17



bluewater

+31 23 711 5500
info@bluewater.com
www.bluewater.com

References



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FPSO Glas Dowl



Glas Dowl

The FPSO Glas Dowl has been converted from an intercept, newly built oil tanker to an FPSO in the UK, in 1995. In 1997, the Glas Dowl first commenced operations on oil fields on the UK shelf of the North Sea. From then onwards, it operated in the harsh environments offshore South Africa, and Australia, until end of 2015. It has been proven to be a reliable and flexible FPSO with high production uptimes. The FPSO Glas Dowl is employable in harsh environments in a wide range of fields around the world.

Double hull AFRAMAX size tanker

The FPSO Glas Dowl is a double hull AFRAMAX size tanker. The FPSO is equipped with fully segregated ballast tanks arranged in the wing tanks and double bottoms, and in the fore and aft peak so as to control stability and weight distribution but also to provide a protective location for the crude oil storage tanks.

Internal turret mooring system

The Glas Dowl has a high capacity fixed internal turret mooring system. The turret system includes a spider structure that connects to the nine (3x3) mooring legs by means of automatic chain stoppers. The turret includes 15 J-tubes for risers and umbilicals.

Topsides equipment

The FPSO was upgraded for deployment on the Sable Field. A high pressure separation section, MP/HP compression with closed loop cooling and a stabiliser unit were added to the topsides. In 2010/2011 the FPSO was upgraded again for redeployment on the Kitan field: a booster compressor (high pressure), a gas dehydration unit (TEG), a crude fiscal metering skid, freshwater generators for crude desalting and a large (60 m³) methanol storage vessel were added.

Floating offloading hose

The crude from the cargo oil tanks is routed via the offloading manifold from where it is transported to the shuttle tanker through a floating offloading hose. Offloading of the stored crude oil is undertaken with two of the three cargo pumps. The maximum offloading capacity is 5,200 m³/hr (about 32,700 bbls/hr). A parcel size of 550,000 bbls can be offloaded within 24 hours.