

## DESCRIPTION

The *Bogie Turret* is an internal turret integrated into a forward tank of the vessel, and supported by modular axial and radial bearing components (called bogies and wheels), which run on rail sectors. All components can be replaced in-situ offshore, should this ever be required.

This type of turret has virtually no limit: the turret diameter and the number of bogies & wheels can easily be adapted to meet project specific load requirements as well as the number of risers. It can also be supplied with lower radial stoppers mounted near the vessel keel in order to cope with the harshest environments.

The manifold structure houses the process facilities and supports the swivel stack. An overhead gantry structure is used to drive the outer part of the swivels, provide access and support the piping running from the swivels to the vessel topsides.

This type of turret is well suited for harsh to very harsh conditions and / or very high number of risers, and provides the highest degree of reliability.

The *Bogie Turret* concept was developed in the mid 1990's when SBM Offshore developed the mooring for a 154,000 DWT FPSO for a continuous period of 15 years in the West of Shetlands, with 24 risers. SBM Offshore has since successfully deployed *Bogie Turrets* worldwide, including one (FPSO P-53), with a world record of 75 risers.

## WV-ND-I-L-TB



FPSO Glen Lyon

## CLASSIFICATION

<b>Mooring Type</b>	<input checked="" type="checkbox"/> Internal Turret	<input type="checkbox"/> External Turret	<input type="checkbox"/> Spread Mooring	<input type="checkbox"/> Yoke / Special
<b>Weathervaning</b>	<input checked="" type="checkbox"/> Yes	<b>Disconnectable</b>	<input type="checkbox"/> No	<b>Product Code</b>
<b>Integration Type</b>	<input type="checkbox"/> Soft	<input type="checkbox"/> Rigid Articulated	<input checked="" type="checkbox"/> Integrated	TMIT
<b>Mooring System</b>	<input type="checkbox"/> Tower	<input type="checkbox"/> Column	<input checked="" type="checkbox"/> Mooring Legs	

## TRACK RECORD

<b>Number of slots</b>	15 to 75
<b>Water Depth</b>	135 m to 1,780 m
<b>Hs (100y)</b>	2.5 m to 18 m
<b>Vessel size</b>	133,000 DWT to 600,000 DWT

## BEARING OPTIONS

<input type="checkbox"/>	Slewing bearing
<input checked="" type="checkbox"/>	Multi bogie bearing system
<input type="checkbox"/>	Bush
<input type="checkbox"/>	N/A

## REFERENCE LIST

UNIT	MOORING SYSTEM SCOPE	FIRST OIL or CONTRACT AWARD (CA)	CLIENT	FIELD	COUNTRY	LAST OIL
FPSO Schiehallion	New Build	1998	BP	Schiehallion	UK	2013
FPSO Capixaba	New Build Relocation	2006 2010	Petrobras Petrobras	Golfinho Cachalote	Brazil Brazil	2009 -
FPSO P-53	New Build	2008	Petrobras	Marlim Leste	Brazil	-
FPSO Frade	New Build	2009	Chevron	Frade	Brazil	-
FPSO Espirito Santo	New Build	2009	Shell	BC-10	Brazil	-
FPSO Aseng	New Build	2011	Noble Energy	Aseng	Equatorial Guinea	-
FPSO OSX 2	New Build	2011 (CA) On lay up	OSX	Designed for Waimea	Brazil	-
FPSO Skarv	New Build	2012	BP	Skarv	Norway	-
FPSO Glen Lyon	New Build	2017	BP	Quad 204	UK	-
FPSO Johan Castberg	New Build	2017 (CA)	Statoil	Johan Castberg	Norway	-
FPSO Ichthys Venturer	New Build	2018	Inpex	Ichthys	Australia	-
FLNG Prelude	New Build	-	Technip	Prelude	Australia	-