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2010 WORLDWIDE SURVEY OF FLOATING PRODUCTION, STORAGE AND OFFLOADING (FPSO) UNITS

Organized by Vessel Names

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MUSTANG
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Every attempt has been made to locate and contact all the FPSO owners operating around the world. No owner(s) or FPSO company(s) are intentionally excluded from the survey. In some cases the owner or vessel has not been included because information was not supplied in time. We have attempted to make the survey as complete and accurate as possible. However, we make no guarantee that it is all inclusive. The information was collected from company brochures, websites, personal interviews, phone interviews, and in major part by owner-supplied data. Neither Mustang Engineering, L.P. nor Offshore Magazine guarantees or assumes any responsibility or liability for any reliance on the information presented.

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Floating Production Systems

35% Other Floating Prod. Vessels
65% FPSOs

TOTAL NUMBER OF FLOATING PRODUCTION SYSTEMS - 286

FPSO Construction Type

64% Conversions
36% Newbuilds

TOTAL VESSELS – 186

FPSO Ownership

58% Contractor Owned
42% Operator Owned

COURTESY OF MUSTANG

NOTES:
1. Seillean has the ability to use gas for its own power production.
2. Nan Hai Ji Ming has a disconnectable Riser Tower Mooring (Fixed).
3. The Tahi Sea Producer exports oil & gas via pipeline.
4. Farwah is only partly double-sided (i.e. not over entire cargo length).
5. Flumineuse has the world's largest turret.
6. 11 (Phase 1)/22 (Phase 2)

7. Production and gas injection via wellhead platform
8. Production via wellhead platform
9. 6 risers + fluid transfer system
10. Combined with Production
11. This poster includes FPSOs that are either in operation, under construction, undergoing modification, conversion or repairs, scheduled or decommissioned in 2010. It does not include FPSOs decommissioned prior to 2010.

CONSTRUCTION TYPE:
N - Newbuild; C - Conversion

MOORING SYSTEM TYPE

IT	Internal Turret
ET	External Turret
SM	Spread Mooring
RTM	Riser Turret Mooring
SALS	Single Anchor Leg System
CALM	Catenary Anchor Leg Mooring
SALM	Single Anchor Leg Mooring
JSY	Jacket Soft Yoke
TLP	Tension Leg Platform

COMPANY ABBREVIATIONS

ABB Lummus Global	ABB/Astaro/Colfax/GE
ADNOC	Abu Dhabi National Oil Company
AENR	Agip Energy & Natural Resources
AESA	Abdullatif Ebrahim Seddiqi & Sons
Aker BO	Aker Borgestad Operations
Aker MW	Aker Maritime Wellhead
AMEC	Aker Maritime/Kvaerner Contractors
MAS	Maersk, AMEC, SSM
McNulty	McNulty Offshore Construction
MHI	Mitsubishi Heavy Industries
MISC	Malaysia International Shipping Corp
MMHE	Malaysia Marine & Heavy Engineering
MOPU	Mobile Offshore Production & Drilling & Dry Dock
NOSC	National Ocean & Shipbuilding Company
PGS	Petroleum Geo-Services
PMB	Pioneer Natural Resources
SBM	Single Buoy Mooring
Sogen Cosmo	Sogen/Ishikawajima-Kuni/Japan
Shanghai Hudong	Shanghai Hudong Shipyard
Sonqa	Sonqa Floating Production
Tsunoishi	Tsunoishi Shipbuilding Co
UC	United Consortium
HES	Halliburton Energy Services
HHI	Hyundai Heavy Industries
Ihi	Ihidam Production SA
IHI	Ishikawajima-Harima Industries
KBR	Kellogg, Brown & Root
KHV	Koldness Mek Verksted
LMC	London Marine Consultants
MSE	Malaysia Shipping Engineering
MHI	Mitsubishi Heavy Industries
NOV	National Oilwell Varco
PEMEX	Petroleos Mexicanos
PSC	Petrobras Systems
SBM	SBM Offshore
SOFEC	Single Point Mooring Inc.
Technip	Technip
TLW	Texas Line Works
Yantai CIMC	Yantai CIMC Raffles Offshore

Worldwide Distribution of FPSO Vessels

NOTE: Only vessels that are operating, under construction, under conversion or being installed are included in this map. Planned vessels or conversion projects are not included.

COURTESY OF MUSTANG

Status Legend: Operating; Conversion; Installation; Available; Plan to Build; Decommissioned; Construction; Operating - LPG FPU/FPSOs; Modification

| VESSEL NAME & STATUS | FIRST OIL MONTH | FIRST OIL YEAR | FPSO OWNER | FPSO OPERATOR | FIELD OPERATOR (MAJORITY) | LEASED FPSO (CONTRACTOR OWNED) | LEASE EXPIRATION DATE (CURRENT CONTRACT) | OPERATING WATER DEPTH (M) | FIELD or LOCATION | COUNTRY | RESERVES (MMBOE) | DETAIL ENGINEERING: TOPSIDES | DETAIL ENGINEERING: HULL | MAIN CONTRACTORS: GENERAL CONTRACTOR (EPC) | FABRICATION YARDS: TOPSIDES | FABRICATION YARDS: NEW BUILD HULL | FABRICATION YARDS: CONVERSION / INTEGRATION | FABRICATION YARDS: REPAIR | TURRET SUPPLIER/ SWIVEL MANUFACTURER/OTHER | WELLS: TOTAL WELLS | WELLS: PRODUCTION WELLS | WELLS: GAS INJECTION WELLS | WELLS: WATER INJECTION WELLS | WELLS: TYPE: DRY TREE | HULL INFORMATION: DIMENSIONS: LENGTH (M) | HULL INFORMATION: DIMENSIONS: WIDTH (M) | HULL INFORMATION: DIMENSIONS: DEPTH (M) | HULL INFORMATION: MAX OPERATING DRAFT (M) | HULL INFORMATION: HULL CONSTRUCTION (SHIPSHAPE, BARGE, SEMI, SPAR, MONOHULL) | HULL INFORMATION: DISPLACEMENT (MT) (Tonnes) | HULL INFORMATION: CONSTRUCTION TYPE (CONVERSION or NEWBUILD) | HULL INFORMATION: LENGTH BETWEEN PERPENDICULARS TEU | HULL INFORMATION: LATEST INTERVENTION/UPGRADE YEAR | PROCESS AND STORAGE CAPACITY: MAX OIL PRODUCTION (MBOPD) | PROCESS AND STORAGE CAPACITY: GAS PROCESSING (MMscfd) | PROCESS AND STORAGE CAPACITY: TOTAL THROUGHPUT (MBOE) | PROCESS AND STORAGE CAPACITY: GAS INJECTION (MMscfd) | PROCESS AND STORAGE CAPACITY: GAS EXPORT & GAS LIFT (MMscfd) | PROCESS AND STORAGE CAPACITY: MAX WATER PRODUCTION (MBWPD) | PROCESS AND STORAGE CAPACITY: WATER INJECTION (MBWPD) | PROCESS AND STORAGE CAPACITY: H2S TRIM | PROCESS AND STORAGE CAPACITY: STORAGE CAPACITY (MBBLs) | RISER INFO.: TOTAL RISERS | RISER INFO.: PRODUCTION | RISER INFO.: GAS INJECTION | RISER INFO.: GAS LIFT | RISER INFO.: IMPORT / EXPORT RISERS | RISER INFO.: OTHER | RISER INFO.: UMBILICALS | TOPSIDES INFO.: QUARTERS CAPACITY (PEOPLE) | TOPSIDES INFO.: GAS DEHYDRATION UNIT (MMscfd) | TOPSIDES INFO.: TYPE OF FLARE (FS=Fuel System; LP=Low Pressure; HP=High Pressure) | TOPSIDES INFO.: OFFLOADING SYSTEM (CA=Cargo Access; CT=Cargo Transfer; DA=Davit; HOSE=Hose; SC=Soft Connect; TUR=Turret) | TOPSIDES INFO.: POWER GENERATION (GT=Gas Turbine; DE=Diesel Engine; FC=Fuel Cell) | MOORING: EXTERNAL TYPE (SALS=Single Anchor Leg System; TAMS=Turret Anchored Multiple Anchor System; CALM=Catenary Anchor Leg Mooring; SALM=Single Anchor Leg Mooring; JSY=Jacket Soft Yoke; TLP=Tension Leg Platform; SPM=Single Point Mooring) | MOORING: INTERNAL TYPE (IT=Internal Turret; ET=External Turret; SM=Spread Mooring; RTM=Riser Turret Mooring) | MOORING: # OF ANCHOR LEGS | ANCHOR TYPE |
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