OOS ENERGY B.V.

MULTI ACTIVITY UNIT

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**GENERAL**
The MAU is a 4-legged self-elevating, self-propelled DP2, multi-purpose unit built to operate in harsh environment areas such as the North Sea. The unit can operate in 55m water depth in North Sea conditions (sustaining 10,000-year wave). In benign circumstances the unit can operate in 80m water depth.

**ACCOMMODATION**
The accommodation is suitable for 200 persons. The cabins are equally equipped, laid out with 2 cabins sharing a common shower/toilet cabinet. A full entertainment system is available in each cabin.

The vessel offers all facilities to allow smooth operation with full accommodation of 200 person. This includes galley and mess room facilities allowing queue-less catering. The facilities also include ample changing rooms, recreational rooms, hospital, gym, laundry and a well-positioned dirty coffee lounge. The hotel facilities also include a reception area with heli-launch with a briefing room. Office facilities for client use includes offices and conference rooms.

**POWER AND PROPULSION**
The unit is self-propelled by 4 steerable thrusters. The DP2 system ensures a safe positioning near the platform.

Four main diesel generators, located in two separate engine rooms, provide power for propulsion, cranes, the drilling package and all auxiliary functions. The unit is dual fuel ready.

**WIND & INSTALLATION**
The unit is equipped with two Leg Encircling Cranes (LEC) of 1200mt lifting capacity each. One of the cranes can be equipped with an extended boom, increasing the hook height from the main deck from 92m to 122m. For safe handling, a tagline system is build in the crane. Sufficient accommodation capacity is available to accommodate the crew required for the installation of the wind turbines. The unit is designed to operate in 55mtrs of water depth ‘all year around’ and in 80mts benign environment. If needed for lifting at high elevation, the airgap can be increased to 40m enabling a hook height of 40+8+122 = 170m above sea level.
## GENERAL

- **Built**: China Merchants
- **Jack-up type**: Self-propelled, DP-2
- **Flag**: Dutch
- **Classification**: DNV
- **Helideck**: SN61N/S92
- **Helideck compliance**: CAP437
- **Accommodation**: 200 POB
- **POB Cantilever - X**: 24.4m
- **POB Cantilever - Y**: +/- 20m

## MUD SYSTEM

- **Mud pumps**: 2x 1,600HP : 5,000psi
- **Shale shakers**: 2x MudCube
- **Swarf unit**: 1,200GPM : 3,500 kg/hr

## WELL CONTROL

- **BOP – Rams**: 1x double 13 5/8 : 10,000 psi
- **BOP – Annular**: 1x 13 5/8 : 5,000 psi

## DRILLING EQUIPMENT

- **Mast**: 454mt
- **Hookload**: 454mt
- **Drawworks**: 1,100 kW
- **Racking capacity**: 18,000ft
- **Top Drive**: 52,000 ftlbs cont
- **Pipe handling**: Automated
- **Coiled Tubing support**: 50 mt
- **Coiled tubing handl height**: 9.1m

## PRINCIPAL DIMENSIONS

- **Length x breadth**: 106m x 65/52m (Aft/Fwd)
- **Transit Draft**: 5m
- **Leg Length**: 127m
- **Leg spacing longitudinal**: 63m
- **Leg spacing – transverse – fwd**: 38m
- **Let spacing – transverse - aft**: 45m
- **Variable load (with cantilever)**: 6,000mt
- **Variable load (cantl removed)**: 7,600mt
- **Deck space**: 3,400 m²

## STORAGE CAPACITIES

- **Fuel**: 1,750m³
- **Drill water**: 714 m³
- **Potable water**: 417 m³
- **Liquid mud**: 700 m³
- **Barite / Bentonite / Cement**: 4x 60 m³

## POWER & PROPULSION

- **Main Engines**: 4x 3800kW
- **Main Generators**: 4x 3500ekW
- **Thrusters**: 4x 2350 kW

## CRANES

- **Standard boom**: Max hook height above deck
- **Aux**: 50mt all radii
- **Extended boom**: Max hook height above deck
- **Main**: 1,200 mt @ 27m
- **Aux**: 50 mt all radii

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*Working envelope rig with patented skidding system*
PLUG AND ABANDONMENT PACKAGE

The pipe handling equipment is fully automated, limiting manual handling. Tripping speed is up to 4000 ft/hr and a specific tubing P&A iron roughneck is available for a safe and efficient handling of the production string. The cantilever has an extended reach of 24.4m.

The mud system located in the hull contains 2x 1600HP, 5000psi mud pumps, mudpits, mud mixing facilities and 4 bulk tanks for cement/bentonite/barite storage. The mud system located in the cantilever contains high performance shakers, a swarf unit to remove steel cuttings and a vacuum degasser and mud treatment tanks.

The well control equipment consists of a BOP (Blow Out Preventer) 1x double ram + 1x single ram 10.000psi 13 5/8, 1x 5.000psi 13 5/8 annular preventer. The unit is equipped with a standard 10.000 psi BOP (Blow Out Preventer), a 5000psi annular and a standard Kill and Choke manifold.

Features for an efficient P&A operation
The unit is equipped with a Swarf unit for the removal of steel cuttings.

The cantilever has an extended reach of 24.4m and a side-way reach of 20.0m each way. A dual well center is available to facilitate coiled tubing or wireline operations on a second well slot. This enables to work on two wells simultaneously. The handling of the tubulars is automated with high tripping speeds.

During the P&A operations, preparations can take place to enable the platform removal such as steel reinforcements or auxiliary structures such as the helideck, tanks, crane, removal of formation cuttings from the seabed, flush and disconnect flowlines etc. Therefore, there is no need to mobiles a hotel accommodation platform, the MAU has sufficient capacity (crane / bed space) to perform all preparation work.

There is no need for a heavy lift vessel for the removal of the platform. The MAU is designed to do this. The shallow draft of the unit enables the MAU to deliver the decommissioned topside/ jacket on the quayside for further disposal.