

# OFFSHORE ASSET TECHNICAL SPECIFICATION



## WEST DESARU MOPU

### PRINCIPAL PARTICULARS

Name of Asset	:	WEST DESARU MOPU
Owner	:	FPF-005 Limited, Labuan, Malaysia
Type	:	Self Elevating Offshore Installation
Classification	:	ABS A1 Floating Production and Offloading System
Port of Registry	:	Avatiu
Flag	:	Cook Island
IMO Number	:	8751851
Gross Tonnage	:	5421 tonnes
Net Tonnage	:	1626 tonnes
Deadweight	:	170,614 tonnes
Lightweight	:	10,900 tonnes
Mat ballast	:	8845 MT
Built	:	1976 as a Jack-Up drilling unit in Beaumont, Texas, USA
Hull No	:	4891
Conversion	:	The jack-up was converted to a MOPU in 1999 in Mississippi, USA and refurbished in 2012 at Lumut Yard, Malaysia
Length	:	59.13 m
Breadth	:	45.72 m
Hull Depth	:	6.25 m
Leg Length	:	90.22 m (from top of mat to top of leg)
Outer leg outer diameter	:	4.572 m
Inner leg outer diameter	:	4.267 m
Mat main diameter	:	71.5m x 64m x 3.66m x 0.61m (skirting)
Nos of Void Tanks	:	18 (Hull) & 4 (Mat)
Living Quarter capacity	:	50 pax
Life-saving & Fire-fighting	:	Comply to CLASS & MODU Code Requirement
Classification	:	American Bureau of Shipping (ABS)
Class Notations	:	✱A1, Floating Production, RFL (3) 2026
Deployment History	:	West Desaru field (Block PM304), Malaysia since June 2013
Facility Performance	:	99% uptime since deployment in 2023
Design Life	:	10 years until 2023
Life Extension (LE)	:	+3 years until 2026 / Approved by Class ABS.

## TECHNICAL PARAMETER

The primary system associated with the MOPU Process facility are;

- Oil Separation and Treatment System
- Gas Lift Compression and Treatment
- Produced Water Treatment System
- Water Injection Facilities
- Utilities

## PROCESS FACILITY

- Total Fluid handling rate : 60,000bbls
- Oil Separation System/1 x 100% train : 20,000 bopd
- Production Water Treatment System : 40,000 bwpd
- Lift Gas Compression / 2 x 100% train : 2 x 7.5 mmscfd
- Water Injection System : 30,000 bwpd
- Flare System : 60.0 mmscfd
- Fuel Gas system : 3.0 mmscfd

## PRESSURE VESSEL SPECIFICATION

Pressure vessel / Tag no	Design Working Press (DWP)	Design Temp	Type
1 <sup>st</sup> Stage / Test Sep / V100	218 PSI / 1503 kpag	107.2 DegC	3-Phase Hoz w/Weir
1 <sup>st</sup> Stage Sep / V-110	218 PSI / 1503 kpag	107.2 DegC	3-Phase Hoz w/Weir
2 <sup>nd</sup> Stage Sep / V-120	75 PSI / 517 kpag	107.2 DegC	3-Phase Hoz w/Weir & 24" x 2" LG Boot
HP Flare KO Drum / V-900	145 PSI / 1000 kpag	107.2 DegC	2-Phase Hoz
LP Flare KO Drum / V-920	145 PSI / 1000 kpag	107.2 DegC	2-Phase Hoz

## CHEMICAL INJECTION SYSTEM

- Chemical Injection Package is available for Oil and Water Treatment.

## POWER GENERATION

- Dual Fuel Solar Saturn T-10 GTG : 2 units x 950 Kw
- EMD Diesel Engine generator : 2 units x 750 Kw

## EXPORT SYSTEM

- Crude Oil Export Pump : 3 pump units x 140m3/hr @ 1050kpag

## GAS LIFT COMPRESSION SYSTEM

- Gas Lift Compressor gas turbine : 2 trains x Solar Centaur 40
- Compressor : Solar / Model: C160

## WATER INJECTION SYSTEM

- Water Injection System gas turbine : 1 x Solar Centaur 40
- Water Injection Pump : 1 x Sulzer x 199m3/hr @25000kpag

## SEA WATER LIFT PUMP

- Seawater lift pump A & B : 2 x 360m3/hr @1600kpag / 171kw motor

### **OFFSHORE PEDESTAL CRANE**

Two (2) offshore main pedestal cranes (lattice boom type) and driven by electro-hydraulic diesel engines;

1. Nautilus Main/Aux : rated at 17.2MT / 4.8 MT
2. National Main /Aux : rated at 24 MT / 3.5 MT

### **LIFEBOAT**

- Gravity type : (2 x 32 pax) & (1 x 36pax) capacity

### **HELIDECK**

- Certified for Chopper Super PUMA AS332L2

SAMPLE