



The "PACIFIC KHAMSIN" is an upgraded Dual Load Path Samsung 12000 design dynamically-positioned Dual Gradient capable drillship able to operate in moderate environments and water depths up to 3,657 m (12,000 ft) using 18¾" BOP and 21" OD marine drilling riser.



Pacific Khamsin UDW Drillship (Hull # 2014)

GENERAL

Flag:	Liberia
Owner:	Pacific Drilling V Limited, a subsidiary of Pacific Drilling Limited
Manager:	Pacific Drilling Services Inc
Year Built:	New Build – to be delivered April 2013
Design:	Samsung 12000 Double Hull
Builder:	Samsung Heavy Industries, South Korea
Classification:	DNV +A1, Ship-shaped Drilling Unit, BIS, E0, DYNPOS-AUTRO, DRILL, CRANE, HELDK-S, F-AM, HIL DP, HIL PMS, COMF-V(2)

OPERATING PARAMETERS

Maximum transit speed:	11.5 knots	
Operating conditions:	Wave: 19ft	Wind 50: knots
Station-keeping conditions:	Wave: 28ft	Wind 60: knots
Storm conditions:	Wave: 47ft	Wind 100: knots
Water depth:	Equipped: 10,000ft (3048m)	Maximum: 12,000ft (3657m)
Drilling depth:	Equipped: 35,000ft (10,668m)	Maximum: 40,000ft (12,186m)

MAIN DIMENSIONS / CAPACITIES

Length:	748 ft	228 m
Breadth:	137 ft	42 m
Depth:	62 ft	19 m
Transit draft:	28 ft	8.5 m
Operating draft:	39 ft	12 m
Maximum load displacement	105,800 ST	96,000 MT
Variable deck load – Operating	24,250 ST	22,000 MT
Variable deck load – Transit	18,740 ST	17,000 MT
Variable deck load – Survival	24,250 ST	22,000 MT
Brine / Sea Water:	4,000 bbls	640 m ³
Brine	15,700 bbls	2500m ³
Base oil:	6,200 bbls	1000 m ³
Active mud:	6,600 bbls	1065 m ³
Reserve mud:	12,400 bbls	2,000 m ³
Reserve / Riser fluid Mud:	6,200 bbls	1000 m ³
Waste Mud:	3,100 bbls	500 m ³
Sacks:	10,000 sacks	
Drill water:	15,700 bbls	2500 m ³
Potable water:	8,100 bbls	1300 m ³
Diesel:	46,500 bbls	7400 m ³
Pipe racks:	Storage for 3,000 MT of drill pipe and casing	
Riser storage:	Storage for 131 joints of 90 ft length, 21-1/4" outside diameter riser with buoyancy	
Well test area:	Storage area aft designed for up to 2,500 MT of well test equipment	
Helideck:	22.2 x 22.2 octagonal, rated for Sikorsky S61N or S92	
ROV:	ROV deployed over side, space for one port and one starboard full spread	
Moonpool:	84 ft x 41 ft (25.6 m x 12.5 m)	
Accommodation:	200 berths, 20 x 1 person and 90 x 2 persons rooms	
Burner Boom:	N/A	



MACHINERY

Main power:	HIMSEN engines 6 x 8,000 KW at 720 RPM, Tier 2 compliant, each driving 1 x 7,760 kW 11kV ABB generators
Power distribution:	11 kV, 440 V, 60 Hz, 3-Phase Drilling Drive System
Emergency power:	All main engines are rated as emergency
Cranage:	4 x 85 MT electro-hydraulic knuckle-boom cranes at 18 m (59 ft) radius 1 x 9 MT electro-hydraulic knuckle-boom cranes at 22.3 m (73 ft) radius

STATION-KEEPING

Positioning:	Kongsberg DYNPOS AUTRO System for DP-3 Operations
Propulsion:	6 x 4,500 kW variable speed AC drives
Thrusters:	6 x Rolls Royce Aquamaster fixed pitch Azimuthing in water removable thrusters
Ref. System:	Dual redundant DGPS or equivalent; Dual HiPAP hydro acoustic position reference system

DRILLING EQUIPMENT

Derrick:	Dual load path main 1250 ST auxiliary 1000 ST, maximum combined load 1750 ST 210 ft x 60 ft x 80 ft derrick to handle 135 ft-tubular. Crown block with 9 ea 72" sheaves Racking board capable of racking 3 1/2" DP up to 20" casing
Draw-works:	2 x NOV Active Heave Drawwork, 2500 kips single speed gear driven by 6 x 1150 HP AC motors with 2 1/8" line
Rotary:	1 x NOV RST 755 (75-1/2") hydraulic (Main); 1 x NOV RST 605 (60-1/2") hydraulic (Auxiliary)
Top drive:	2 x NOV TDX-1250, 1250 ST hoisting, 1200 ST rotating, torque 90,740 ft.lbs
Travelling block	2 x NOV 2500 kips, 8 x 72" sheaves
Mud Pumps:	4 x NOV 14-P-220, 7500 psi
HP Brine - DGD Pumps:	3 x NOV 14-P-220, 7500 psi
Cementing Unit:	Third Party Services – Schlumberger CPS-977, remote control, LAS
Shale Shakers:	7 ea. NOV Multi size Triple Deck shale shaker
Degasser:	2 x Brandt DG-12 vacuum degasser
Centrifuges:	Space available for 2 x Brandt HS 2172 centrifuges
Drill-pipe:	10,000 ft 6.5/8" Casing landing string with 6.5/8" FH connections, UD-165, 60 lbs/ft 25,000 ft 5.7/8" Drill string with 585 Turbotorque connections, S-135, 26.30 lbs/ft 10,000 ft 5" Drill string with GPDS50 connections, S-135, 19.50 lbs/ft
Drill-collars / HWDP:	12 x 9 1/2", 30 x 8 1/4", 30 x 6 3/4" / 40 x 5 7/8" HWDP, 40 x 5" HWDP
Pipe Handling:	Outfitted to facilitate offline tubular handling with system consisting of: 2 x Hydra-Racker System HR-IV (for 3.1/2" to 20" tubulars) 2 x Hydratong MPT-200 (for 3.1/2" to 9.3/4" tool-joints)

SUBSEA SYSTEMS

BOP:	6 Ram cavities: 2 x Shaffer NXT 18 3/4" 15K triple (rated for 12,000'); Vetco SHD H4 18 3/4" 15K wellhead connector
LMRP:	2 x Shaffer 18 3/4" 10K annular; Vetco ExF H4 18 3/4" 15K High Angle Release LMRP connector
BOP / Xmas tree Handling:	1 x BOP trolley with skid rated 540 tons. 2 x 240 ton BOP gantry crane with dual lifting hoists. 2 x X-mas tree skids rated 120 tons Rails for 1 x Multi purpose hang off cart rated 1,000 tons, with 13m clearance for Xmas trees.
Control System:	Shaffer Multiplex Control System suitable for 12,000'
Riser Details:	Shaffer 21" OD, 90 ft Class H couplings & 15K 4.1/2" ID C&K lines
Riser Gantry crane	One riser gantry crane with 2 x 27.5 mt hoist
Choke & Kill:	3.1/16" x 15K C&K Manifold H ₂ S Service
Diverter:	Shaffer CSO (or equivalent) with 75.1/2" bore, 500 psi
Riser Tensioner:	8 x Dual Wireline 225kips with 50 ft stroke