

DALIAN DEVELOPER

GENERAL SPECIFICATIONS

Shipyards Delivery	Jul-2012
Classification Agency	DNV 1A1 Ship Shaped Drilling Unit DRILL (N), DYNPOS-AUTRO, DP Class 3
Design	MPF 1000 6 th Generation Ultra Deepwater Drillship for Worldwide Harsh Environment
Dimensions	955.5' x 164' x 88.6'
Moonpool	Drilling 97.7' x 32.1 ft
Openings	Production 49.2 ft Ø
Water Depth	10,000 ft
Max. Drilling Depth	35,000 ft
Variable Deck Load	Operating: 25,000 mt Survival: 25,000 mt Transit: 25,000 mt
Combined Draft	50 ft
Operating Draft	42.65 ft
Transit Draft	37.73 ft
Max. Wave Height	Normal Drilling: 16.4 ft, Max Operating & Transit: 27.9 ft
Helideck Capacity	Sikorsky S-92, S-61N, AS332L2, EC-225 and EH-101 or equivalents



DRILLING EQUIPMENT

Derrick Capacity	AKMH HiPro Quad, 46 ft x 52 ft base x 210 ft clear working height 2 Million lbs Static Hook Load, 986 mt setback
Racking Capacity	3½ - 6½" Drill pipe—320 stands x 135 ft (43,200 ft) 9½" Drill collars— 8 stands x 135 ft (1080 ft) 13⅝" Casing - 49 stands x 135 ft (6,615 ft) Or 9⅝" Casing - 72 stands x 135 ft (9,720 ft) Or 7" Liner – 104 stands x 135 ft (14,040 ft) (Quad range II DP, Triple range III Casing)
Drawworks	AKMH Wirth GH 4500-EG-AC-LV electric motor driven, 4500 hp, 1035 mt capacity with 14 lines
Rotary Table	AKMH Wirth RTSS 60½", hydraulically driven, 1000 sht (907 mt) capacity, 33,927 ft/lbs max torque
Iron Roughnecks	2 x AKMH MH1899 for tubular range 3½" DP to 9¾" DC, MBOT 125,000 ft lbs
Top Drive	AKMH model DDM-1000-AC-2M, 1000 sht capacity, 87,000 lbs/ft max continuous torque, 0 - 240 max rpm, 2 x 1150 hp AC motors

CAPACITIES

Diesel Fuel Oil	39,700 bbls	Completion Fluid	10,125 bbls
Drillwater	28,280 bbls	Fresh Water	12,515 bbls
Liquid Mud	11,635 bbls	Base Oil	5,987 bbls
Bulk Storage	35,315 ft ³	Brine	5,987 bbls
Sack Storage	18,900 Sacks	Crude Oil Storage	1,002,289 bbls

OTHER PARTICULARS

Accommodation	180 in single and double cabins
Mud Pumps	4 x AKMH Wirth model TPK-7½ x 14 / 2200 CL, 2,200 HP 7,500 psi, c/w 2 x GE AC motors
BOP Stack	1 x Hydril 18¾" 15,000 psi 6 x ram BOP, + 2 x Hydril 18¾" 10,000 psi annular BOP's
Diverter	1 x Drill-Quip 60½" 500 psi with 16" diverter lines & 6" fill up line

C & K Manifold	API 16C 3 ¹ / ₁₆ " 15,000 psi mwp
Mud Manifold	API 6A dual 5" NB 7,500 psi mwp
Cement Manifold	API 6A single 3" NB 15,000 psi mwp
Motion Compensator	AKMH Crown Mounted Compensator, rated at 454 mt with a 25 ft stroke AKMH Active Heave Compensator, rated at 25.7 mt pull and 27.4 mt push with a 25.6 ft stroke
Control System	Hydril Multiplex (MUX) Control System (11,500 ft capacity at 85% fill)

PROPULSION & POWER

DP Class	DP-3 (DYNPOS-AUTRO)
DP Control System	Main; Kongsberg K-Pos DP 21 Dual redundant Back Up; Kongsberg K-Pos DP 11
Main Engines	8 x Wartsila 16V32 diesel engines c/w 8 x Alconza NIR-112.105 B-8QLW 7,200 kW / 9000 kVA @ 750 rpm main generators (11 KV, 50 Hz, 472 A rated current)
Emergency Power	All main generators are classed as emergency generators and the electrical distribution is a 4 split system
Thrusters	8 x 5,500 kW Wartsila FS3500-671/NU Azimuth c/w fixed pitch propellers (≈ 93.8 mt thrust each)

RISER SYSTEMS

Riser	21" OD Drill-Quip riser w/ 2 x 4 ¹ / ₂ " ID 15k psi Choke and Kill lines, 1 x 3 ³ / ₈ " ID 5k psi booster line, 1 x 2 ¹ / ₂ " ID 5k psi hydraulic line
Riser Tensioning	8 x AKMH wire line tensioners, 3,200,000 lbs total capacity with 50 ft stroke
Riser Length	10,000 ft + buoyancy (75 ft joints)

HANDLING SYSTEMS

Cranes	4 x Hydramarine HMC 4240 LKO knuckle boom pedestal mounted cranes, 85 mt max load at 19 m radius, 34 mt at 39 m radius (static), 80 mt max load at 19 m and 26 mt at 40 m (dynamic, Hs = 1), 17 mt max load at 48 m radius (static) and 11 mt (dynamic, Hs = 1) 1 x Hydramarine HMC 2806 LKO pipe deck mounted knuckle boom crane, 10 mt max load at 6.5 to 15 m, 15 mt max load at 15 to 25 m, 10 mt max load at 25 to 35 m and 9 mt at 35 to 37.85 m (static and dynamic)
Tubular Handling	1 X AKMH Bridge crane system, c/w lower guiding arm, 15 mt capacity 1 x AKMH Standbuilding arm, 6.4 mt capacity, for 15 ft to 45 ft tubulars 1 x AKMH drill floor manipulator arm 1 x AKMH 40 mt capacity combined DP, casing and riser catwalk suitable for handling 83 ft riser joints c/w integrated monkey tail The port fwd and stb fwd cranes are each supplied with a Hydramarine 27 mt capacity Riser Handling Yoke for max riser length of 26.4 m (86.6 ft) The pipe deck crane is supplied with a Hydramarine 5 mt capacity Pipe Grip Yoke (10 mt SWL in the centre located lifting lugs)
BOP Handling	1 x AKMH 500 mt capacity BOP trolley, 2 x AKMH 250 mt capacity BOP cranes
Xmas Tree Handling	Utilises the BOP handling system
LMRP Handling	Utilises the BOP handling system

LIFESAVING SYSTEMS

Lifeboats	4 x Norsafe AS GES 50 90 man capacity free fall type (200% of PoB)
Rescue Boat	1 x Mako 655 10 man capacity fast rescue craft (man overboard (MOB) boat)
Life rafts	To class requirements
Lifejackets	To class requirements
Lifebuoys	In accordance with IMO MODU & SOLAS