Ultra-Deepwater Dual-Activity Drillship

General Description

Design / Generation ........................................... DSME 12000 Ultra Deepwater Drillship
Constructing Shipyard .......................................... DSME
Year Entered Service / Significant Upgrades ........... 2016
Classification .................................................. DNV 1A1, “Ship Shaped Drilling Unit”, E0,
DYNOPOS-AUTRO, DRILL, CRANE, HELDK
Flag ........................................................................ Marshall Islands
Dimensions ....................................................... 781 ft. LOA x 138 ft. beam x 62 ft. depth
DRAFT ................................................................. 39 ft. operating / 29 ft. transit
Accommodation .................................................. 200 persons
Displacement ...................................................... 114,608 st operating
Variable Deck ..................................................... 25,346 st operating / 20,938 st transit
Transit Speed ..................................................... up to 12.5 knots
Maximum Water Depth .................................... 12,000 ft. designed / 10,000 ft. outfitted
Maximum Drilling Depth .................................... 40,000 ft.

Drilling Equipment

Derrick ............................................................... Dual dynamic derrick 210-ft clear internal working height with
78-ft x 46-ft base
Hookload Capacity ............................................. (Main & Aux) 2,800,000 lbs. static hook load. (4,000,000 lbs.
combined)
Drawworks ....................................................... Two (2) (Main & Aux) NOV AHD-1400 active heave compensated drawworks, 10,500 hp each with seven (7)
x 1500 hp GE 690 VAC motors
Both drawworks rated at 1,400-st (blocks reeved for 16 lines) with 2-1/8 inch OD lines
Compensator .................................................... (Main & Aux) Active Heave Compensation in drawworks.
Rotary Table ........................................................ (Main & Aux) NOV RST-755 75-1/2 inch hydraulic rated at 1,250 st; 45,000 lbs. maximum continuous torque
Top Drive .......................................................... (Main & Aux) NOV TDX-1250 electric rated to 1,250 st. with a
continuous torque output of 105,000 ft.-lbs. (at 130 rpm) and
two (2) x 1,340 hp. AC motors
Tubular Handling ............................................... Two (2) NOV ST-160 Iron Roughnecks for tubulars ranging
from 3-1/2 inch to 10 inch. Racking systems for a tubular range
of 4-1/2 inch to 14 inch with two (2) vertical pipe racking systems
Riser Feed .......................................................... One (1) Riser Catwalk Machine, maximum capacity 45 mt and
90 ft. riser joint
Mud Pumps ........................................................ Four (4) NOV 14-P-220 AC triplex pumps, each driven by two (2)
x GE 1,100 hp 690VAC motors plus space for a fifth optional pump
HP Mud System .................................................. Rated for 7,500 psi
Solids Control .................................................... Six (6) Brandt Single VSM-MS triple deck shale shakers

Power & Machinery

Main Power ................................................... Six (6) Hyundai HMSEN 4-stroke 720 rpm diesel engines, each
driving a 6,750 kw x 11KVAC generator
Emergency Power ......................................... One (1) 4-stroke 1,800 rpm diesel engine rated at 1,700 kW
driving a 690 VAC generator
Power Distribution ........................................... Three (3) Siemens 11KV AC switchboards with AGP (Advanced Generator Protection)
DC drilling drives include stored energy capability (Hybrid Power System)

Storage Capacities

Fuel Oil ......................................................... 50,318 bbls.
Liquid Mud .................................................... 8,859 bbls. Active / 10,556 bbls. Reserve
Base Oil ........................................................ 5,346 bbls.
Brine ............................................................... 10,064 bbls.
Drill Water ....................................................... 18,870 bbls.
Potable Water .................................................. 8,177 bbls.
Bulk Material ................................................ (mud + cement) 30,017 cu. ft.
Sack Storage .................................................. 10,000 sacks

BOP & Subsea Equipment

BOP ................................................................. Two (2) x seven (7) ram 18-3/4 inch x 15,000 psi BOP’s consisting of two (2) Cameron TL doubles and one (1)
Cameron TL triple. Separate test control system for the second BOP while the primary BOP is deployed
LMRP .............................................................. Two (2) LMRP’s, each including one (1) Cameron Dual DL 18-3/4 inch 10,000 psi annular preventer
BOP Handling ............................................... NOV BOP Moonpool Trolley rated at 800 mt with two (2) x 300
mt overhead service hoists and two (2) x 15 mt service hoists
Marine Riser ................................................... Cameron Load King Riser 75 ft. x 21 inch OD, with H class
connectors and 4.5 inch ID 15,000 psi choke and kill lines
Tensioners ....................................................... 4,000 kips combined capacity using eight (8) NOV DWRT-250
dual riser tensioners rated at 250 kips each tensioner with a
maximum effective 50 ft. stroke
Diverter ............................................................ Cameron 21 inch x 500 psi with two (2) 16 inch flow lines
Tree Handling ............................................... One (1) 350 mt Xmas tree trolley and two (2) 150 mt skid cart
Moonpool ....................................................... 82 ft. length x 31 ft. width

Station Keeping / Propulsion System

Thrusters ....................................................... Six (6) right angle geared thrusters, three forward and three
aft, each rated at 5,500 kw, variable speed, fixed pitch, fully
azimuthing, and underwater demountable type with advanced
thruster capabilities (ADCAP)
DP System ................................................... DP3, Kongsberg Maritime K-Pos 3 (triple redundant) with
backup DP system

Cranes

Cranes ........................................................... Three (3) 100 mt knuckle boom cranes rated at 25 mt. at a
radius of 45 meters
AHC Subsea Crane ........................................... One (1) 165 mt active heave compensated knuckle boom
crane for handling 84.3 mt subsea equipment to 12,000 ft WD

Other Information

Helideck ......................................................... Rated for Sikorsky S-61N and S-92 helicopters
Emissions ........................................................ IMO tier III with SCR exhaust treatment and using low sulphur
or ULSD diesel fuel (MGO)

These specifications are intended for general reference purposes only, as actual equipment and specifications may vary based upon subsequent changes, the contract situation and customer needs. All equipment shall be operated and maintained at all times, in compliance with Transocean standard operating manuals, policies and procedures, and within its stated operational limits or continuous rated capacity, in order to assure maximum operational efficiency.
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