Compact Semi-Submersible Drilling Unit

DSME-6000M

for Ultra Deep Sea Operation in Moderate Environment

DSME, with trust and passion
With its unprecedented record of delivering top class semi-submersible drilling units worldwide and vast experience in engineering technologies, DSME has successfully crafted cost optimization into a conventional semi-submersible drilling unit by reducing its size without compromising any essential functional capacity.

In addition to intensive optimization, the DSME-6000M also offers a full range of ultra deep sea operation capabilities as well as sufficient flexibility for customization, making it a compelling proposition for clients seeking low-cost measures.

DSM E-6000M is a “compact” semi-submersible drilling unit, engineered to provide clients with the best economic solution for exploration and drilling in ultra deep sea environments having moderate sea conditions.

**Design Philosophy**

Stability assessment integrated for safe design, optimal strength and stability

Highly maneuverable and reliable during operations

Robust and simple structural configuration with a minimum fatigue sensitive bracing connections

Low operation and maintenance costs

High transit speed

Sufficient deck area for storage

**Characteristics of unit:**

- Stability assessment integrated for safe design, optimal strength and stability
- Highly maneuverable and reliable during operations
- Robust and simple structural configuration with a minimum fatigue sensitive bracing connections
- Low operation and maintenance costs
- High transit speed
- Sufficient deck area for storage
Within its compact arrangement, DSM E-6000M facilitates maximum flexibility with regard to various drilling operations through accommodating different drilling facilities, equipment and layouts. Additionally, it possesses dedicated riser storage and spacious pipe racks located on the upper aft deck.

A fully integrated fluid handling system, incorporating segregated mud and brine systems with secondary mud stored in agitated pontoon tanks, increases operational flexibility. A dedicated area for well test equipment is also arranged on the upper deck.
DSME-6000M

GENERAL
Water / Drilling Depth Classification
8,000 ft / 35,000 ft
American Bureau of Shipping (ABS)
(☐ 1A1 Column Stabilized Drilling Unit,
☐ AMS, ☐ 1ACCU, ☐ DPS-2, CAP437)
Rules and Regulations
IMO, API, SOLAS, MARPOL
Operation areas
Moderate Environment

MAIN DIMENSIONS
Length over all
approx. 115.10 m
Beam over all
approx. 77.70 m
Beam outside pontoons
72.96 m
Height, base line to box bottom
25.00 m
Height, base line to upper deck
33.20 m
Length of pontoon
101.12 m
Beam of pontoon
16.64 m
Height of pontoon
9.60 m

GENERAL DATA
Normal Operation draught
17.00 m
Survival draught
14.50 m
Transit draught
9.30 m
Air gap operation
8.00 m
Air gap survival
10.50 m
Transit Speed
approx. 8.5 knots

OPERATION CAPACITIES
Deck & Column Payload
approx. 6,000 mT
Displacement
Normal Operation
approx. 38,500 mT
Survival
approx. 36,400 mT
Transit
approx. 30,900 mT

CAPACITIES
Pontoons
Fuel oil tanks
approx. 2,740 m³
Potable water tanks
approx. 800 m³
Mud and other drilling liquids
Total liquid mud tanks in upper hull
approx. 1,200 m³
Mud tanks in pontoons
approx. 1,100 m³
Pontoon brine tanks
approx. 670 m³
Pontoon base oil tanks
approx. 670 m³
Drill water tanks
approx. 2,530 m³
Dry bulk tanks
Bulk cement
approx. 220 m³
Bulk bentonite/barite
approx. 360 m³

LIFE SAVING EQUIPMENT
Lifeboats
4 x 76 men, Conventional type
Rescue Boat
1 x 9 men, Diesel engine
Life Rafts
6 x 25 men, Self inflating

MARINE AND UTILITY SYSTEMS
Main Diesel Generators
8 x 4.32 MW (34.56 MW), 720 rpm, four separate Engine rooms
Azimuth Thrusters
8 x 2.8 MW (22.4 MW), F.W. cooling
Dynamic Positioning
IMO DPS Class 2, 3 (Option)
Cranes
Two Pedestal Cranes, 75 mT SWL at 9.0 to 20.0 m and 30mT at 46.0 m

ACCOMMODATION
POB
150 persons

ELECTRICAL SYSTEMS
Voltage Rating
11.0 kVAC / 690 VAC / 440 VAC / 230 VAC

DRILLING AND SUBSEA SYSTEMS
Derrick
Single Derrick, 2,000,000 lbs
46ft x 52 ft of galvanized steel, 64.0 m height
Top drive
908 ft max. hook load, 2 x 850 kW AC motors
Drawworks
Three AC motors ; 2,570 kW continuous power
Well control system
BOP Stack 18-3/4”; 15,000 psi
Drill Riser
21”OD, 16.0 ppg mud in 8,000 ft of water
Choke and Kill System
15,000 psi, nominal size : 3-1/16” ID
BOP Control System
5,000 psi electro hydraulic multiplex system
Mud pumps
Four Mud pumps, 2,200hp each 7,500 Psi

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