

Frigstad D80™ MW

Tailor made solution for efficient
offshore exploration & development



FRIGSTAD D80™ MIDWATER OUTLINE SPECIFICATION

REGULATORY BODY APPROVALS

SOLAS 2011 Edition, MARPOL 1973/78, IMO MODU-CODE 2009, all with latest amendments

CLASSIFICATION

DNV +1A1 COLUMN STABILIZED DRILLING UNIT, POSMOOR-ATA, CRANE, HELDK-SH, ECO, F-AM, DRILL, BWM-T, COMF V(1) C(1), CLEAN DESIGN

DESIGN CRITERIA

Maximum Wind Velocity (Stability)	70 Knots / 100 Knots	Air Gap (Operational / Survival)	12.1 m /15.6 m (39.7 ft/51.2 ft)
Wave Height Hs	15.8 m (51.8 ft)		

PRINCIPAL PARTICULARS

Length of pontoons	105 m (344.5 ft)	Displacement (operational)	45,037 t (44,325 LT)
Width & Length, Pipe Rack Deck	76 m x 73 m (249.3 ft x 239.5 ft)	Displacement (survival)	41,466 t (40,810 LT)
Height to Pipe Rack Deck (ABL)	39.6 m (129.9 ft)	Displacement (transit)	35,523 t (34,961 LT)
Draft (operational)	19 m (62.3 ft)	Water depth (outfitted)	457.2 m (1,500 ft)
Draft (survival)	15.5 m (50.8 ft)	Water depth (max)	1,500 m (4,920 ft)
Drilling depth (max)	40,000 ft (12,192 m)	Water depth (minimum)	70 m (230 ft)

STORAGE CAPACITIES

Bulk mud, upper hull	327 m ³ (11,548 ft ³)	Drill water, pontoon	3,230 m ³ (20,318 bbls)
Bulk cement, upper hull	327 m ³ (11,548 ft ³)	Potable water	1,260 m ³ (7,926 bbls)
Sack material, upper hull	7,000 sacks	Open pipe rack deck area	3,075 m ² (33,099 ft ²)
Base oil for mud, pontoon	940 m ³ (5,913 bbls)	Variable deck load (max operational)	7,000 t (6,888.7 LT)
Liquid mud / brine, upper hull	1,070 m ³ (6,730 bbls)	Variable deck load (max transit)	5,860 t (5,767 LT) incl. anchors & chains
Liquid mud / brine, pontoon	1,878 m ³ (11,813 bbls)	Payload (max operational)	11,200 t (11,021 LT)
Diesel FO (MDO)	4,840 m ³ (30,445 bbls)		

ACCOMMODATION/ OFFICE

Total capacity of 160 men in 1 and 2 men cabins with attached toilet/bathroom, 10 nos.office spaces and service facilities

MATERIALS HANDLING

Deck Cranes	Two (2) 80 t revolving deck cranes with 46 m main boom, certified for personnel lift. Each crane is equipped with two 5 t tugger winches for material handling. One (1) 9 t knuckle boom tubular handling crane winch for material handling
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MARINE SYSTEMS

Main Power / Emergency Power	Six (6) diesel engines, each with 3,340 kW capacity. Total installed horsepower is approximately 20,040 kW. Two (2) of the main generators are assigned as both main and emergency generator. Each shall be located in separate compartment. Engine exhaust shall comply with Tier III
Power Distribution	AC Power propulsion, Mooring and VMC system. 11kV AC Alternators.
Thruster	Four (4) 3.0MW azimuth thrusters for Automatic Thruster Assisted mooring and self-propulsion. Thruster is installed with a fixed pitch propeller with an 8° tilted thruster.
Mooring System	Four (4) triple drum windlasses with twelve (12) underwater chain fairleads Stationkeeping is a 12 points chain mooring system with automatic thruster assisted. At water depth up to 457 m (1,500 ft) the system can operate as self-help mooring, for deeper water depth the system shall operate in a preset /insert mooring mode. Twelve (12) chain lockers in pontoon for stowage of 84 mm chain of 1,500 m length.

DRILLING SYSTEMS

Drilling Rig	Single Quad Derrick with API gross nominal capacity of 2,500,000 lbs with a lifting height of 64 m and a maximum set-back load capacity of 647 t (713 st), equipped for offline stand building capability Derrick shall be installed with a personnel elevator of 500 kg lifting capacity.
Rotary Table	One (1) 60.5" rotary with independent drive
Top Drives	One (1) top drives with 680 t (750 st) capacity
Riser Tensioners	Four (4) dual wire line tensioners, each with capacity of 200,000 lbs totalling 1,600 kips
BOP and Riser	One (1) 18.75" x 15,000 psi Annular preventers Five (5) 18.75" x 15,000 psi Ram preventers 5,000 ft (1,524 m) of 21" risers, 50 ft joints with C&K, booster and hydraulic lines Riser setback area is capable of vertically racking 5,000 ft of risers (100 ft stands made up of 2 x 50 ft lengths)
Drill String	Tubular setback / fingerboards is able to rack approximately 40,000 ft of drilling string, includes 5 7/8" drill string with subs, drill collars, heavy weight drill pipes

DRILLING FLUID SYSTEMS

Mud Pumps and Treatment System	Three (3) water-cooled Mud Pumps, single acting Triplex, 2200 HP, 7,500 psi, optional for 4 th mud pump Four (4) Shale Shakers with header box/flow divider and adjustable-while-drilling (AWD) with space reserved for two (2) additional shakers., one (1) gumbo conveyor, two (2) Degasser units, two (2) 60 bbls trip tanks and space reserved for two (2) set of mud cleaners (desilter and desander)
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OTHERS

Elevators for Crew and Provisions	Two (2) freight & personnel elevators of 1,500 kg capacity in port/aft and starboard/forward column Two (2) freight & personnel elevators of 6,000 kg carrying a laden forklift in port/aft and starboard/forward upper hull One (1) personnel elevator of 1,500 kg capacity in accommodation
Helicopter Deck Capacity	Designed for M18, S61/S92 and EH 101 helicopters. Helideck is installed with Integrated Fire Fighting System (DIFFS)
Life Saving Equipment	Four (4) lifeboats with total capacity of 320 persons. Lifeboats are sized for average person weight of 98 kg and seat width of 21". Fourteen (14) inflatable liferafts with capacity of 25 persons each. One (1) fast rescue boat.

Note: The details included in this specification may change without prior notice.

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