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## ENSCO 109

### GENERAL INFORMATION

**Flag** Marshall Islands  
**Previous Name(s)** Ocean Shield  
**Year Built** 2008  
**Builder** Keppel FELS, Singapore  
**Upgrade** Not applicable  
**Design** Keppel FELS KFELS MOD V Super B Class  
**Classification** A. B. S. A-1 Self Elevating Mobile Offshore Drilling unit CDS

### MAIN DIMENSIONS

**Length** 246'  
**Breadth** 218'  
**Depth** 25'  
**Legs** 3 x triangular 486'  
**Leg Spacing** Longitudinal leg center 129', transverse leg center 142'  
**Cantilever** Minimum 0', maximum 70' from stem to rotary centerline; Maximum 15'; rotary displacement to either side of longitudinal centerline; 50'6" x 30' live drilling area aft of hull  
**Spud Cans** 52.4' diameter x 19' high  
**Deck Area** Main deck storage capacity 6,100 sq. ft

### DRAFT AND DISPLACEMENT

**Transit Draft** 16'  
**Transit Displacement** 34341 kips

### MACHINERY

**Main Power** 5 x Wartsila 6L26A2 diesel engine each driving 1 x Leroy Somer 1,829 KW generator; total 12250 HP  
**Power Distribution** 6 x 1150hp National Oilwell & 3 x 2300 hp ABB VFDs  
**Emergency Power** 1 x Cat 3412TA diesel engine rated at (831 hp) driving 1 x Stamford HCM534F2 500kW AC generator

### OPERATING PARAMETERS

**Water Depth** 350'  
**Maximum Drilling Depth** 35,000'  
**Leg Penetration** 25' (Site specific)  
**Air Gap** 50' (Site specific)  
**Transit Speed** 4.5 - 5 knots  
**Survival Conditions** At 350' water depth: wind: 100 knots; waves: 48'; period 14 sec (with fixation system)  
**Criteria Design** Wind: 70 knots; waves: 40'

### DRILLING EQUIPMENT

**Derrick** National Oilwell Varco 170' x 36' x 36'; rated 2,000,000 lb static hook load capacity  
**Drawworks** National Oilwell Varco SSGD-4600, 4600 hp  
**Rotary** Varco/BJ RST 495, (49-1/2" max opening)  
**Top Drive** National Oilwell Varco HPS1000-2E, 1000 tons  
**Travelling** National Oilwell Varco HTB-N, 1000 ton rating  
**Handling** NOV Bridge Racker BR6-8000/6500-SD; NOV MPT 200 Iron Roughneck  
**Cementing** BJ (free placement only)  
**Mud Pumps** 3 x NOV 14P22, 2,200 hp; 7,500 psi  
**Drill Pipe** 15,000' x 5-7/8" 26.7 ppf S-135 TM2-5-1/2" FH tool joints; 10,000' 5" 19.5 ppf S-135 NC50 tool joints  
**Drill Collars** 9 x 9-1/2", 18 x 8-1/4", 30 x 6 3/4"

### HOISTING EQUIPMENT

**Craneage** 2 x Seatrax S5624, 14.5 ton whip line 53 ton main line; diesel hydraulic & 1 Seatrax S7220, 15 ton whip line, 61 ton main line; diesel hydraulic

### CAPACITIES

**Variable Deck Load** 7984kips (drilling)  
**Cantilever Load** 2.700 kips  
**Total Drilling Load** 2,000 kips  
**Tubulars in Pipe Rack** 15,000' 5-7/8" DP; 10,000' 5" DP; BHA  
**Liquid Mud** 5252 bbls  
**Bulk Mud/Cement** 9600 cu. Ft./6150 cu. Ft.  
**Sacks** 5,000 sacks  
**Drillwater** 21,746 bbls  
**Potable Water** 2,053 bbls  
**Brine Storage** 1000 bbls  
**Base Oil Capacity** 1561 bbls  
**Fuel Oil** 3344 bbls  
**Watermaker** Alfa Laval D-PU-36-C100  
**Others** Trip Tank 1 x 65 bbls

### WELL CONTROL SYSTEMS

**BOP** NOV Shaffer NXT 18 3/4" 15,000 psi 4 ram BOP stack (double & double); Shaffer 18 3/4" 10,000 psi Wedge cover annular  
**BOP Handling** 2 x 66 ton JDN/EHZ60-LN30 BOP hoists  
**Control System** CAD 48010370U2, 3,000 psi  
**Diverter** ABB Vetco KFDJ 49 1/2" 500 psi with 3 x 16" remote controlled valves  
**TV System** National Oilwell Varco  
**Choke and Kill** T3F 3-1/16" x 15,000 psi

### MOORING

**Winches** None  
**Wire** Not applicable  
**Anchors** None

**HELIDECK** S-92; 73' diameter; 28,300 lb

**JACKING AND SKIDDING SYSTEM** Keppel FELS with hydraulic fixation system

**ACCOMMODATION** 120 berths (10 x 1 man staterooms with private T&S, 55 x 2 man staterooms with shared T&S. Gymnasium, recreation rooms, 6 x offices, Radio room/control room, conference room and 2-bed hospital

### ADDITIONAL DATA

4 x NOV Brandt King Cobra Shale Shakers; NOV King Cobra Mud Cleaner; 3 x 12" Desander; 24 x 4" Desilter; 2 x Brandt DG-12 1,200 gpm vacuum degasser, 500 kips conductor tensioning system, MDT/Varco drilling controls and instrumentation; single point discharge

### CANTILEVER CAPACITY (kips)

	Reach	+15'	0	-15'
Max combined load & setback	70'	618	1721	618
	20'	2700	2700	2700