



## ENSCO 104

### GENERAL INFORMATION

**Flag:** Liberian  
**Previous Name(s):** Chiles Discovery  
**Year Built:** 2002  
**Builder:** Keppel FELS, Singapore  
**Upgrade:** 2011 / 2014  
**Design:** KFELS Mod V Class B  
**Classification:** ABS A-1 self-elevating MODU

### MAIN DIMENSIONS

**Length:** 225 ft  
**Breadth:** 208 ft  
**Depth:** 25 ft  
**Legs:** 3 x triangular 517 ft  
**Leg Spacing:** Longitud. center 129 ft, transv. center 142 ft  
**Cantilever:** Maximum 70 ft from stern to rotary centerline; maximum 15 ft rotary displacement to either side of longitudinal centerline; 50 ft x 30 ft live drilling area aft of hull  
**Spud Cans:** 47.2 ft diameter x 19 ft high  
**Deck Area:** 6,100 ft<sup>2</sup>

### DRAFT AND DISPLACEMENT

**Transit Draft:** 16 ft  
**Displacement:** 31,351 kips (Transit)

### MACHINERY

**Main Power:** 5 x Cat 3516-B diesel engines rated at 1,855 HP, each driving 1 x Cat 2,150 KVA generator, total 9,275 HP  
**Power Distribution:** 5 x Ross Hill Control 600V, 2,200A SCR system; 1 x Siemens Variable Frequency Drive (VFD) for Top Drive, Type 6SE 7241-2FSOO-3AB0-Z, VT current output 1230, HP 1250  
**Emergency Power:** 1 x Cat 3516-B diesel engine rated at 1,855 HP, driving 1 x Cat 2,150 KVA generator.

### OPERATING PARAMETERS

**Water Depth:** 350 ft – 400 ft  
**Drilling Depth:** 30,000 ft (Maximum)  
**Leg Penetration:** 25 ft  
**Air Gap:** 120 ft  
**Transit Speed:** 4 – 5 knots  
**Survival Conditions:** At 350 ft Water Depth Capacity: - At 350 ft water depth: wind: 100 knots; waves: 43 ft; period 15.sec (with fixation system)  
**Criteria Design:** 70 knots; waves: 42 ft; -10°C.

### DRILLING EQUIPMENT

**Derrick:** Drecto 170' rated 1,500,000 lbs  
**Drawworks:** National 1625 UDBE, 3 x GE 752 DC motors, total 3,000 HP, Baylor 7838 Elmago National D-495 (49 1/2' max. opening) driven by 1 x GE 752 DC motor, 1,130 HP  
**Rotary:** NOV TDS-8SA-AC, 750 mt  
**Top Drive:** Varco 750 mt rating  
**Travelling:** Varco ST-120 Roughneck  
**Handling:** Haliburton HCS Advantage 15k free placement  
**Cementing:** 3 x National 14-P-220; 7,500 psi mud system  
**Mud Pumps:** 11,000ft 5 1/2" 24.7ppf VM105, VCDS55 Tool Joint; 8,662ft 4" CYX-105 14ppf XT-39 Tool Joint; 8,662 ft 5 1/2" S-135 21.9 lb.ft VCDS55 Tool Joints R2; 8,662 ft 5 1/2" G-105 21.9 lb.ft VCDS55 Tool Joints; 5,513 ft 4" S-135 VX-39 Tool Joint  
**Drill Pipe:**

**Drill Collars:** 9 1/2"; 8 1/4"; 6 1/2"; and 4 3/4"

### HOISTING EQUIPMENT

**Craneage:** 3 x Drecto DNS-48, 120 ft booms, 45 mt @ 25 ft radius, Aux 9 mt @120 ft radius

### CAPACITIES

**Variable Deck Load:** 9,700 kips (drilling)  
**Cantilever Load:** 800 kips (cantilever pipe rack load)  
**Total Drilling Load:** 2,250 kips (combined hook, rotary, setback)  
**Tubulars in Pipe Rack:** 25,000 ft  
**Liquid Mud:** 3,598 bbl  
**Bulk Mud/Cement:** 11,100 ft<sup>3</sup>  
**Sacks:** 5,000 sacks  
**Drill water:** 15,082 bbl  
**Potable Water:** 2,053 bbl  
**Brine Storage:** 2,229 bbl  
**Base Oil Capacity:** 1,298 bbl  
**Fuel Oil:** 2,584 bbl

### WELL CONTROL SYSTEMS

**BOP:** Cameron "U" 13 5/8" 10,000 psi 4 ram BOP stack; Shaffer spherical blowout preventer 5,000 psi 13- 5/8" 5,000Psi annular (10,000 psi piping)

**BOP Handling:** J.D Neuhaus model UH-100, 200 mt  
**Control System:** ABB TX392-15BT3X  
**Diverter:** ABB Vetco KFDJ 49 1/2", 500 psi, 36 1/2" bore, 2 x 12" Hydraulic Remote Operated valves  
**TV System:** Hervis / PT30W CCTV system, Monkey Board, Stabbing Board, and Flowline  
**Choke and Kill:** 3-1/16" x 15,000 psi T3

### MOORING

**Winches:** 4 x Marathon LeTourneau / W1500  
**Wire:** 1 1/2" x 2,000 ft anchor wire.  
**Anchor:** Anchor racks available, no anchors fitted

### HELIDECK

S-61 75 ft Diameter Rated 20,500 lbs

### JACKING AND SKIDDING SYSTEM

Jacking Unit: Keppel Fels – OTD Model 1000FV; Skid Unit: Keppel Fels – OTD Model SS200-FL.

### ACCOMMODATION

120 berths  
 30 x 2 man rooms, 12 x 4 man rooms, 2 private rooms, 10 bed TLQ

### ADDITIONAL DATA

4 x Brandt VSM-300 Shale Shaker, 3 in 1 VSM300 Mud Cleaner.  
 300 kip conductor tensioning system – Icon  
**Watermaker:** Two Units, 14,000 gpd each  
**Others:** Skimmer-209bbbls: Dirty Oil 51 bbl

### CANTILEVER CAPACITY (kips)

	Reach	+15'	0	-15'
Allow Loads	70'	606	1306	474
Max combined load & setback	46'	2001	2250	1580

Values in table for 900 Kips total setback load