



## ENERGY ENHANCER

Jack Up  
Rig and Equipment Overview



## RIG SPECIFICATIONS

### GENERAL

**Rig** Energy Enhancer  
**Flag** Liberia  
**Owner** Energy Enhancer Limited  
**Previous Name(s)** STC Cicero; Trident X; Maersk Enhancer  
**Year Built** 1982  
**Builder** CFEM, Dunkerque, France  
**Design** CFEM T-2005-C, self-elevating cantilever jackup  
**Classification** DnV + 1A1

### MACHINERY

**Main Power** 3 X Wartsila 12V22MD, MCR 2,100 kW diesel engine, 2,200kVA;  
3 X ac EO-Leroy Somer LSA 34 57-6P generator set, 600V, 60Hz, 2,000kW  
**Power Distribution** SCR: 2 X dual dc drive ABB, 6 single DC drive units  
**Emergency Power** Leyro12P 15 SR marine generator, 460kW/575kVA

### DRILLING EQUIPMENT

**Derrick** Joseph Paris 160 X 36 X 36 ft; 1,400,000 lb gross nominal capacity; static hook load 455 st; Crown block-Joseph Paris 500 ton with 6 X 60" diameter sheave  
**Drawworks** National 1625-DE, 3,000 hp driven by 3 X dc motor; Blaylor Elmangco 7838 eddy current electromagnetic brake  
**Rotary** National C-375, 37-1/2" opening, with independent drive  
**Top Drive** Varco TDS-4-HQ, driven by 1 X GE 752 dc motor, 1,000 hp  
**Traveling Block/hook:** National 660-G-500 with 6 X 60" sheave; grooved for 1-1/2" wireline, 500 ton  
**Handling** Maritime Hydraulics Iron Roughneck  
**Cementing** Halliburton HCS- Advantage 15,000 psi; recirculating mixing unit; liquid additive system  
**Mud Pumps** 3 X National 12-P-160, input 1,600 hp each; 3 X Hydril K20 5,000 psi pulsation dampeners

### MOORING

**Winches** 4 X Brissonneau et Lotz MB 420-F20 single drum winch, pulling capacity 29 ton on first layer, 5.5 ton on last layer  
**Wire/Chain** 2 X 700m X 2-1/4" diameter wire; 2 x 1,000mt X 32mm" diameter wire  
**Anchors** 2 X Vicinay high holding power 8.325 ton  
**Cranage** 2 X National OS-215 pedestal crane, 41 ton with 120 ft boom, port and starboard  
**Helideck** S-61, EC225, S92N ; 83ft diameter  
**Diving Spread** Operator supplied  
**Jacking and Skidding System** Electromechanical double rack and pinion unit with 24 pinions per leg; Jacking Speed: 1.5ft/min  
**Accommodation** 104 berths + 1 berth sickbay  
**Additional Data** 1. Return mud treatment system: 4 X Swaco BEM 650 shale shaker; 1 X Swaco CD 1400 degasser; 1 X mud/gas separator 2. Mud mixing system: 3 X 420 bbl and 1 X 280 bbl mud tank; 3. Air compressors: 2 X Atlas Copco screw compressor GA 1,210 W raw water cooled complete with aftercoolers, capacity 280 l/sec at bar; 2 X Start-air compressor, type Ervor G5 electric, diesel driven, air cooled, 30 bar 4. Lifesaving equipment: 2 X Harding 50-man lifeboat; 2 x Harding 70 man lifeboats 1 X Watercraft 32-man lifeboat; 6 X DSB 25-man life raft.

### MAIN DIMENSIONS/ DRAFT/DISPLACEMENT

**Length** 245 ft  
**Breadth** 283 ft  
**Depth** 24.56 ft  
**Legs** 3X438.2 ft; leg below hull 367ft  
**Leg Spacing** 216 ft from centre forward leg to centre of aft leg  
**Cantilever** 45 ft lateral; 12 ft transverse each side  
**Spud Tanks** 45.93 ft diameter X 13.12 ft deep  
**Transit Draft** 32.8 ft load line; 28.9 ft lightship  
**Transit Displacement** 12,768 ton

### OPERATING PARAMETERS

**Max Water Dept** 300 ft  
**Max Drilling Depth** 25,000 ft  
**Survival Conditions** Wind: 70 knots(gust); waves: 23m ; period: 16 sec  
**Criteria Design** Wind: 50 knots(gust); waves: 10m ; period: 11.4 sec

### CAPACITIES

**Variable Deck Load** 2,995 ton (6,708,800 lb) incl hook load; 1,400 ton towing; 2,000 ton jacking; 2,500 ton drilling (excl hook load)  
**Cantilever Load** Hook load static with top drive: 1,000,000 lb; rotary: 1,000,000 lb; setback: 550,000 lb  
**Tubulars in Pipe Rack** Main deck: 1,389,000 lb; Cantilever deck: 485,000 lb  
**Bulk Mud/Cement** 5480/5480ft<sup>3</sup>  
**Liquid Mud** 1906 bbl  
**Sacks** 1200-1500 sacks  
**Drillwater** 4578 bbl  
**Portable water** 1990 bbl  
**Fuel oil** 2382 bbl  
**Others** Pre-load and ballast water: 37652 bbl; low toxic oil: 1321 bbl; completion brines: 1328 bbl; Atlas AFGU 2 SD two stage distilling unit, capacity 11 gpm

### BOP SYSTEMS

**BOP** 13-5/8" BOP system: 1 X Cameron D type spherical preventer, 13-5/8" 5,000 psi; 1 X Cameron U type hydraulic operated double ram preventer, 13-5/8" 10,000psi; 1 X Cameron U type, hydraulic operated single ram preventer, 13-5/8" 10,000psi;

**BOP Handling** Skid derrick, use T/block and special lifting tools  
**Control System** NL Shaffer hydraulic, accumulator capacity 32 X 11-gallon, 3,000 psi bottles  
**Diverter** Regan KFDJ, 500 psi  
**Drillpipe** 14,000 ft X 5" Grade S-135; 600 ft X 5" Hevi-wate  
**Drillcollars** 18 joints X 6-1/2"; 14 joints X 8-1/4"; 6 joints X 9-1/2"  
**TV system** Monkey board level  
**Choke and Kill** Choke and kill manifold: Cameron 10,000 psi H2S trim; choke and kill lines: 2X3" id, 10,000 psi, 40 ft long hoses with a 3" Weco 1502 connector at each end