



## JACK-UP INSTALLATION VESSEL BRAVE TERN



### Classification and Rules

Vessel type: Gusto MSC NG9800C-HPE  
Class: DNV + 1A1 self-elevating crane unit wind turbine installation unit, CLEAN DESIGN NAUT(OSV(A))  
OPP-F DYNPOS-AUTR EO HELDK  
Delivery: 2012/2013  
Yard: Lamprell PLC, Dubai  
Flag: Republic of Malta

### Principal Dimensions

Hull length o.a. [m]: 132  
Hull breadth mid [m]: 45  
Hull depth [m]: 9  
Min. draft (light) [m]: 4.25 (+0,8 to spud can tip)  
Draft at max. variable payload [m]: 5,8 at elevated 22.700t (+0,8 to spud can tip)

### Cargo Capacity

Max variable load (t): 9000  
Deck area [m<sup>2</sup>]: 3400  
Uniform deck loading [t/m<sup>2</sup>]: 5-10  
WTG capacity (typical): 4 x 9.5 MW, 3 x 12 MW

### Propulsion, Manoeuvring and Positioning

Aft propulsion: 3 x 3800 kW Voith Schneider propellers  
Fwd manoeuvring: 3 x 1750 kW Wärtsila Lips tunnel thrusters  
Max speed [knots]: 12  
Positioning: DP2



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### Operational Limitations

All year survival water depth range<sup>1</sup> [m]: 7.5 - 55  
 Operation water depth range<sup>1</sup> [m]: 5.5 - 60  
 Transit fully loaded: up to wave 3.5m Hs  
 Jacking: up to wave 1.8m Hs

### Main Crane

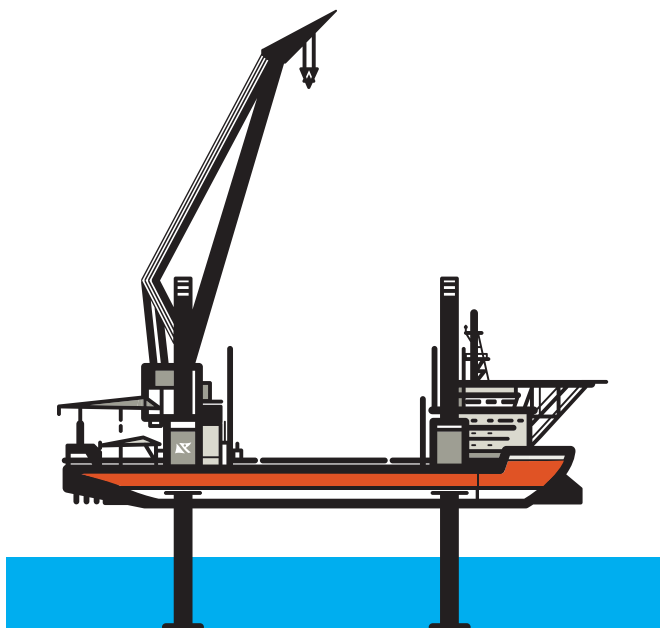
Type and location: Huisman LEC-65500-1600 around aft port leg  
 Long mode: 1600t at 30m outreach (max height 120m at min radius)  
 Auxilliary hook: 400t  
 Sling hoist: 15t (certified for man riding)  
 Mean wind limit [m/s]: 16 (above 84 deg, 20 below 84 deg)

### Deck Cranes

2 cranes of type 20t SWL, 27m max radius. Certified for man-riding  
 1 Palfinger hydraulic knuckle boom crane, DKF 500 - 10t@27m/7t@35m

### Power generation

4 diesel electric Wärtsila generators:  
 1 x 12v32 5760kW, 1 x 6L32 2880kW, 2 x 9L32 4230kW  
 Harbour (emergency) generator. CAT 3512B 1400kW  
 Output range: 60 Hz, 230-690V  
 50 Hz on-deck power supply



### Jacking System

Type: MSC continuous hydraulic double-acting system  
 Effective jacking capacity per leg [t]: 6270  
 Pre-loading capacity total [t]: 9800  
 Holding capacity per leg [t]: 9800  
 Jack-up lifting / lowering speed [m/min]: 0.325 / 0.4  
 Leg handling speed [m/min]: 0.67

### Legs and Spudcans

Number & type: 4 cylindrical  
 Diameter [m]: 4.5  
 Length [m]: 92.4  
 Max leg length below ship baseline [m]: 70.5  
 Spudcan area [m<sup>2</sup>]: 106

### Safety Systems

Fire and safety systems: Compliant with DNV Offshore Standards, IMO MODU Code and SOLAS/SPS Code, North Sea Standard  
 Fire & Gas detection: Shipwide integrated system  
 Fire extinguishing: Fire ring main, Ultra fog water mist system  
 Life saving: 1 x 100% complement fully enclosed lifeboats and inflatable rafts  
 MOB: high speed rescue boat + CrewFinder system

### Access

Helicopter deck D22m, 12.8t (CAP437)  
 Hydraulic gangway to foundation or quay  
 Man-riding cranes  
 Hydraulic boat landing for CTV  
 SOV transfer bracket

### Accommodation and Facilities

Total complement: 80 persons in 68 cabins  
 Cabins equipped with en suite bathroom, Sat TV/video  
 Client offices and workshops, fitness room, laundry, TV room etc.

### Leg retrieval system (jetting)

Capacity: 50m<sup>3</sup>/h @ 30bar per pump  
 Capacity: 150m<sup>3</sup>/h @ 10bar per pump

### Fuel consumption

Transit speed of 10 knots [t/24h]: 45  
 Elevated, standby [t/24h]: 5-6  
 Elevated, crane work [t/24h]: 6-8

<sup>1</sup> Depending on site conditions

The information included in this brochure is intended for general information only. All figures believed to be correct at time of printing.