



# Brave Tern Technical specifications

# Jack-up installation vessel Brave Tern *Specifications*

## Classification and Rules

Vessel type: Gusto MSC NG9800C-HPE  
Class: DNV + 1A1 Self-elevating Crane unit Wind turbine installation unit Clean(Design) Crane-offshore DYNPOS(AUTR) E0 HELDK NAUT(OSV(A)) OPP-F  
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 [m]: 4.25 (+0.8 to spud can tip)  
Max draft [m]: 5.80 (+0.8 to spud can tip)  
Max elevated weight [t]: 22,700

## Carrying Capacity

Max variable load [t]: 9,000  
Deck area [m<sup>2</sup>]: 4,000  
Uniform deck loading [t/m<sup>2</sup>]: 5-10  
WTG capacity (typical): 4 x 8-11MW or 3 x 12-15MW

## Propulsion, Manoeuvring and Positioning

Aft propulsion: 3 x 3,800 kW Voith Schneider propellers  
Fwd manoeuvring: 3 x 1,750 kW Wärtsila Lips tunnel thrusters  
Max speed [knots]: 12  
Positioning: DP2

## Operational Limitations

All year survival water depth range <sup>(1)</sup> [m]: 7.5 - 55  
Operation water depth range <sup>(1)</sup> [m]: 6.7 - 60  
Transit without WTG components: up to 3.5m Hs  
Jacking: up to wave 1.8m Hs

## Main Crane

Type and location: Huisman LEC 1600 around aft port leg  
Capacity: 1,600t at 31m outreach at 157.5m above deck  
Aux. hook: 450t (166.5m above deck)

## Deck Cranes

1 crane of type 20t SWL, 27m max radius  
1 Palfinger hydraulic knuckle boom crane, DKF 500 - 10t at 27m / 7t at 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]: 6,270  
Pre-loading capacity total [t]: 9,800  
Holding capacity per leg [t]: 9,800  
Jack-up lifting / lowering speed [m/min]: Up to 0,4/ 0,5  
Leg handling speed [m/min]: 0.6

## Legs and Spudcans

Number & type: 4 cylindrical  
Diameter [m]: 4.5  
Length [m]: 92.4  
Max leg length below ship baseline [m]: 72  
Spudcan area [m<sup>2</sup>]: 106

## Safety Systems

Reinforced spud can structure for standing on bed rock  
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

## Access

Helicopter deck D22.8m, 15.6t (CAP437)  
Hydraulic gangway to foundation or quay  
Man-riding cranes  
Hydraulic boat landing for CTV  
SOV transfer bracket

## Accommodation and Facilities

Total complement: 104 persons  
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.