

Acergy March | 2008

TOISA PROTEUS

The Leading Multi Purpose
Heavy Construction Vessel



The *Toisa Proteus* is the leading multi purpose heavy construction vessel dedicated to Acergy Asia and Middle East.

The vessel has the capability to undertake a wide range of subsea field development and construction tasks that include flexible flowline and umbilical installation, heavy subsea structure installation, flowline tie-ins, as well as mooring installation for floating production systems.

Built in 2002, the *Toisa Proteus* is 132m in length and has a 22m beam. She has Class 3 dynamic positioning, a heave compensated crane with 390Te max lift capacity, speed of up to 14 knots and is equipped with two Triton XLS ROV Systems.

In 2008 the *Toisa Proteus* will be equipped with a new Huisman built Tilttable Lay System (TLS), enabling her to lay up to 600mm diameter pipe at a maximum tension of 150Te.

Toisa Proteus specifications

General

Build: Van Der Geissen – 2002
Flag: Liberian
Gross Tonnage: 8402
Net Tonnage: 2521
Deadweight (Summer Draft): 8710 tonnes

Classification

+1A1 EO, SF, Dynpos AUTRO, DSVIII, DNV

Dimensions

Length overall: 131.7 m
Breadth moulded: 22.0 m
Depth moulded: 9.5 m
Draft (summer): 6.25 m

Performance

Up to 14 knots maximum transit speed

Dynamic Positioning

DP system: Simrad SDP 21 (3 x operator stations)
DP references: DGPS, fanbeam, 2 x HIPAP (high accuracy fixed/tracking head underwater acoustics systems)
3 x Gyro compasses
3 x Wind sensors
3 x Motion reference units
Compliance standards: DnV DynPosAutr
IMO DP-Equipment Class 3

Accommodation

104 persons + 1 x Hospital Bed

Tank Capacities

Fuel oil: 1105 m³
Potable water: 563 m³
Potable water makers: 2 x 20 tonnes/day RO Plants
200t Sewage (grey water) holding tank used in Zero discharge areas

Intering anti roll tanks
Anti heeling system

Main Machinery

Diesel electric installation comprising:
Main engines: 4 x Wartsila 9L26A diesel each driving an alternator and each producing 2680 kW at 660 v 3Ph 60Hz
Total power: 10720 kW
Harbour set: 1 x 750 kW
Emergency set: 1 x 150 kW

Thrusters

Stern thrusters: 2 x 3000 kW fully azimuthing nozzle thrusters with fixed pitch propellers driven by infinitely variable speed motors
Bow thrusters: 3 x 1335 kW variable pitch tunnel thrusters

Deck Area

Working deck area: 1900 m² (without equipment)
Deck strength: 5 tonnes/m²
Total deck load: 3500 Te @ 3.0 m above deck

Cranes

Huisman mast crane with active heave compensation to Main Hook and 2 x constant tension winches.

Main Hook Single Fall

196 mt in port at max radius 32 m
196 mt at sea at max radius 24.3 m - **surface lift**
168 mt at sea at max radius 32 m, 1000m water depth
140 mt at sea at max radius 32 m, 2000m water depth
112 mt at sea at max radius 32 m, 2250m water depth

Main Hook Double Fall

342 mt at sea max radius 12.6 m - **surface lift**
334 mt at sea max radius 16 m, 1000m water depth
306 mt at sea max radius 16 m, 1125m water depth

Main Hook Heave Compensation System

Combined Active and Passive System installed allowing
In single fall a total crane load of 195mt controlled within + or - 3m vertical movement.
In double fall a total crane load of 390mt controlled within + or - 1.5m vertical movement.

Whip Hook Single Fall

19 mt in port max radius 49 m
16 mt at sea max radius 49m, 500m water depth

Whip Hook Double Fall

38 mt in port max radius 48 m
35 mt at sea max radius 48m, 250m water depth

Secondary crane

20 mt to service back deck

Moonpool

One moonpool 6.24 m x 6.24 m temporarily sealed at bottom

Remotely Operated Vehicles

2 x 150bhp 3,050m rated Triton XLS ROV Systems.

Each System -

4 x 12" Horizontal Thrusters
4 x 12" Vertical Thrusters
Forward speed 3.0 knts
Lateral speed 2.0 knts min
Vertical speed up 2.0 knts min
Vertical speed Dn 1.8 knts min
Turning Rate 40 degrees/second

XLS Tether Management System -

Up to 360m (1180ft) usable Tether
TMS Camera

Umbilical Winch/Launch and Recovery System (LARS)

Umbilical length up to 3,300m (10,825ft)
150 bhp Winch
SWL 9 metric Tonnes
1 x Control Cabin 6.1m x 2.4m
Workshop and Spares Container 6.1m x 2.4m

Chain Handling

Below deck storage for 2000te, 750m³ of chain
Loading Gypsy currently configured to handle 84mm to 142mm chain
5m/min loading capability

Summary of Capabilities

Flexible, umbilical and riser installation
FPSO mooring system installation
Subsea construction, connections and tie-ins
Seabed surveys and inspections
ROV operations