



### Multi-Purpose Research Vessel

The Prince Madog is a custom built multipurpose research & survey vessel, which is owned and operated through P&O Maritime Ocean Sciences (POMOS); a Joint Venture between Bangor University and P&O Maritime (UK) Ltd.

Operated from Menai Bridge, North Wales, the Prince Madog provides state-of-the-art survey facilities at a lower cost than larger commercial survey vessels. The 34 metre vessel is specifically designed to provide a 24 hour, year round, operating capability.

The vessel also has silent running capability with an electric propulsion drive system for enhanced scientific data acquisition.

The Prince Madog can perform a variety of survey applications to support offshore operations in the Renewables, Oil and Gas, Research and Telecommunications sectors.

### Vessel Features and Capabilities

- Wet & dry labs
- A-Frame capacity of 5 tonnes
- Accommodation for 18 Persons
- Ornithological surveys
- Environmental surveys visual, benthic and acoustic habitat mapping
- Geotechnical, Geophysical and Hydrographic surveys
- ROV support
- Site investigations
- Cable & pipeline route surveys



# PRINCE MADOG

## General

Ship Name	Prince Madog
Type	Multipurpose Research Vessel
Owner	P&O Maritime Ocean Sciences
Operator	P&O Maritime Services
Built	2001
Builder	Scheepswerf Visser BV. The Netherlands
Classification	Lloyds Register +100 A1 "Research Vessel", LMC (without cross)
Flag	United Kingdom
IMO Number	9229611

## Main Characteristics

Length O.A	34.09m
Breadth Moulded	8.5m
Draft	3.7m
Gross Tonnage	390 Tonnes
Speed Max	10.5 knots
Service Speed	10 knots
Economical Speed	8 knots
Endurance	10 Days between ports
Electrical Systems	415 V / 240 V AC 50 Hz, 240 V clean supply

## Accommodation

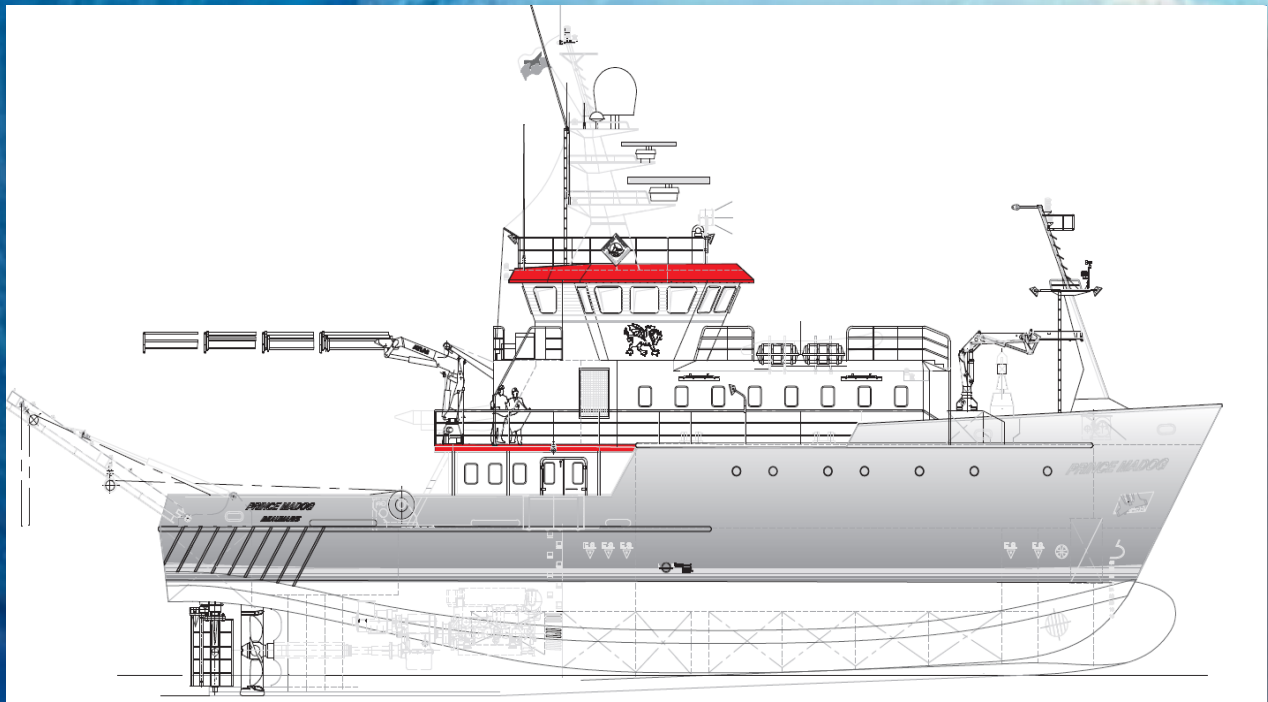
Accommodation	18 total Crew (7/8) Surveyors (11/10)
Double Cabins	5 En-Suite
Single Cabins	8 En-Suite
Deck Space	80m2 (aft)

## Fuel Consumption

In Port	10-20 litres per hour
Transit Speed	180 litres per hour
Survey Speed	135 litres per hour

## Main Equipment

Main Engines	Wartsila 6L20C with controllable pitch propeller. Gear box includes PTO / PTI, a combined Shaft Generator
Output	1080 Kw
Fuel	Marine Diesel – (62.7m <sup>3</sup> at 80%)
Bow Thrusters	150kW



## Deck Machinery

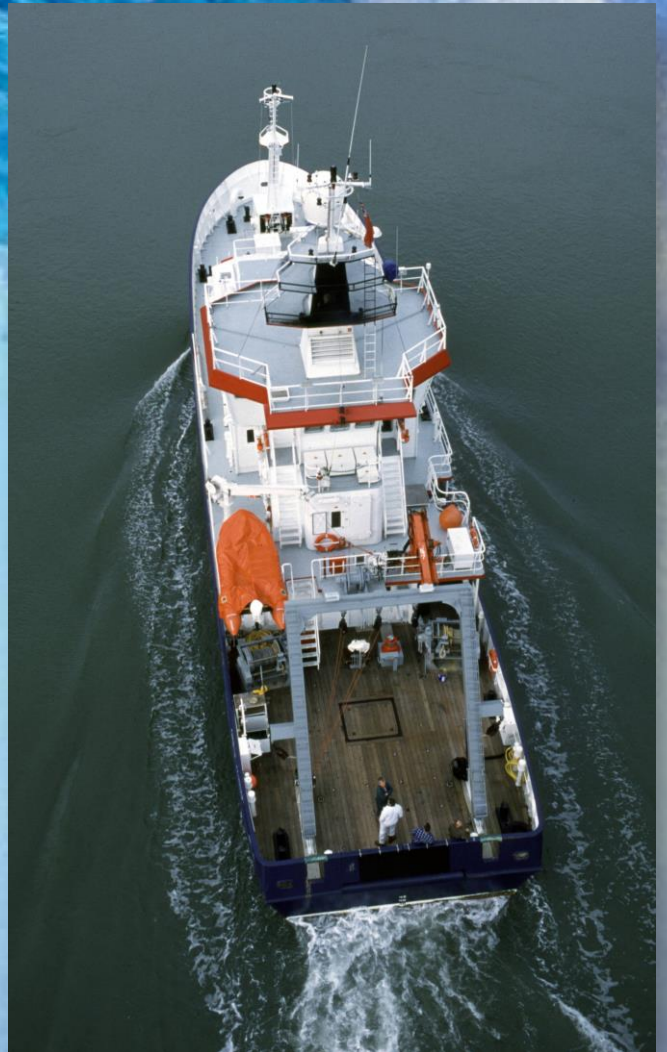
Cranes	Aft – 1.5 tonnes @ 8.1m reach, 12.1m max boom reach Foredeck - 1 tonnes @ 6.5m reach
A-Frame	Aft Deck, 5 tonne capacity, 6.5m max height
Boom Winches	Starboard, 300kg, 2.5m  Rapp GW200 Hydro Winch (1000m length x 4mm diameter)  Rapp GW200 CTD Winch (500m length x 6mm diameter)  2 x Rapp TWS-705/BS70 Split Trawl Winches (2*1000m length x 18mm diameter)  Rapp HW Middle Winch (400m length x 14mm diameter)

## Laboratories

Dry Lab	26m <sup>2</sup>
Wet Lab	29m <sup>2</sup>
Freezer Space	1 x 260 litre freezer, 1 x 274 litre Industrial refrigerator - upright
Containers	1 x ½ size ISO (2.436m x 2.048m). Container on the aft deck

## Navigation & Communication

Auto Pilot	Plath Gyro/Auto Pilot
Speed Logs	Walker Marine Aquaprobe Mk5 Speedlog
Echo Sounder	Furuno Echo Sounder
Navigational Equipment	Furuno DGPS, NMEA Navigational Display System, Trimble DGPS receivers, PC Navmaster Electronic Chart Display, Furuno Navtex
Radar	Furuno Radar S-Band, X-Band
Communications	Nokia GSM Transceiver, Inmarsat-C (e-mail only) , Broadband (Alongside Menai Bridge), E-mail via GRPS GSM Mobile, Iridium



SPECIFICATION SUBJECT TO CHANGE WITHOUT NOTICE

\*All performance figures quoted are nominal, actual dependant on prevailing environmental conditions at time of operation.



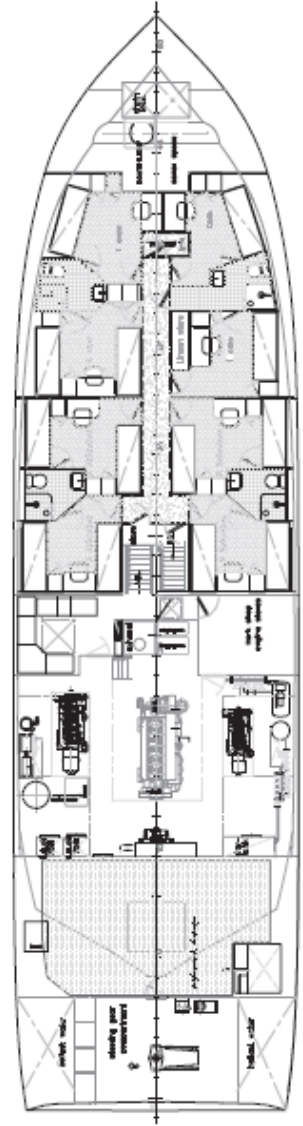
## Survey Equipment

Hydroacoustic & Geophysical	<p>RESON 7125 Ultra-high resolution (200kHz &amp; 400kHz) multibeam,                      RDI 300kHz ADCP,                      Remote speed log display,                      Kongsberg Simrad HRP-410P USBL,                      Ocean Sciences Meteorological Logging System, side mounted instrument pole,                      Kongsberg Simrad EK60 scientific echo sounder</p>
UW Camera	<p>Rovtech video camera system (inc all systems)                      Photosea Stills Film camera system                      Camera sledge, frame, buoys etc</p>
Trawling	<p>2m Beam trawl                      4m Beam trawl                      Otter Trawl (8 fathom Rockhopper)</p>
Sampling	<p>Day Grab                      Shipek Grab                      Gravity Corer                      Hamon Grab Large                      Hamon Grab Small                      Box Corer                      Multicorer                      1mm and 5mm sieving tables</p>
IT Systems	<p>Windows Server 2012 based data collection and display system,                      GSM (GPRS) email communications</p>
Meteorological & Oceanographic Equipment	<p>W.S. Ocean Systems underway meteorological and oceanographic sensor suites,                      Milli - Q Purified Water system,                      Seabird 911plus CTD with SBE32 carousel water sampler                      Minibat Undulator (with Seabird SBE49 CTD)</p>
CCTV	<p>Three cameras view forward, starboard and aft of vessel</p>

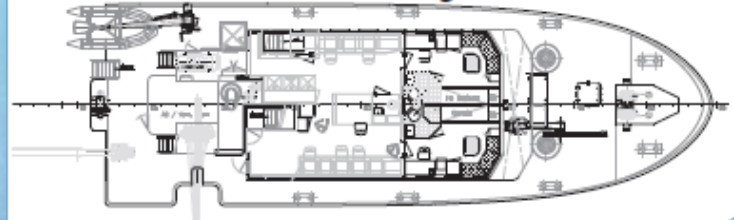
Main Deck



Below Main Deck



Bridge & Forecastle Deck



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