



### Multi-Purpose Research Vessel

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

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 Prince Madog can perform a variety of survey applications to support offshore operations in the Renewables, Oil and Gas, 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	FleVisser Den Helder, 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 knts
Service Speed	10 knts
Economical Speed	8 knts
Endurance	10 days between ports
Electrical Systems	415 V / 240 V, AC 50 Hz, 240 V clean supply

## Accommodation

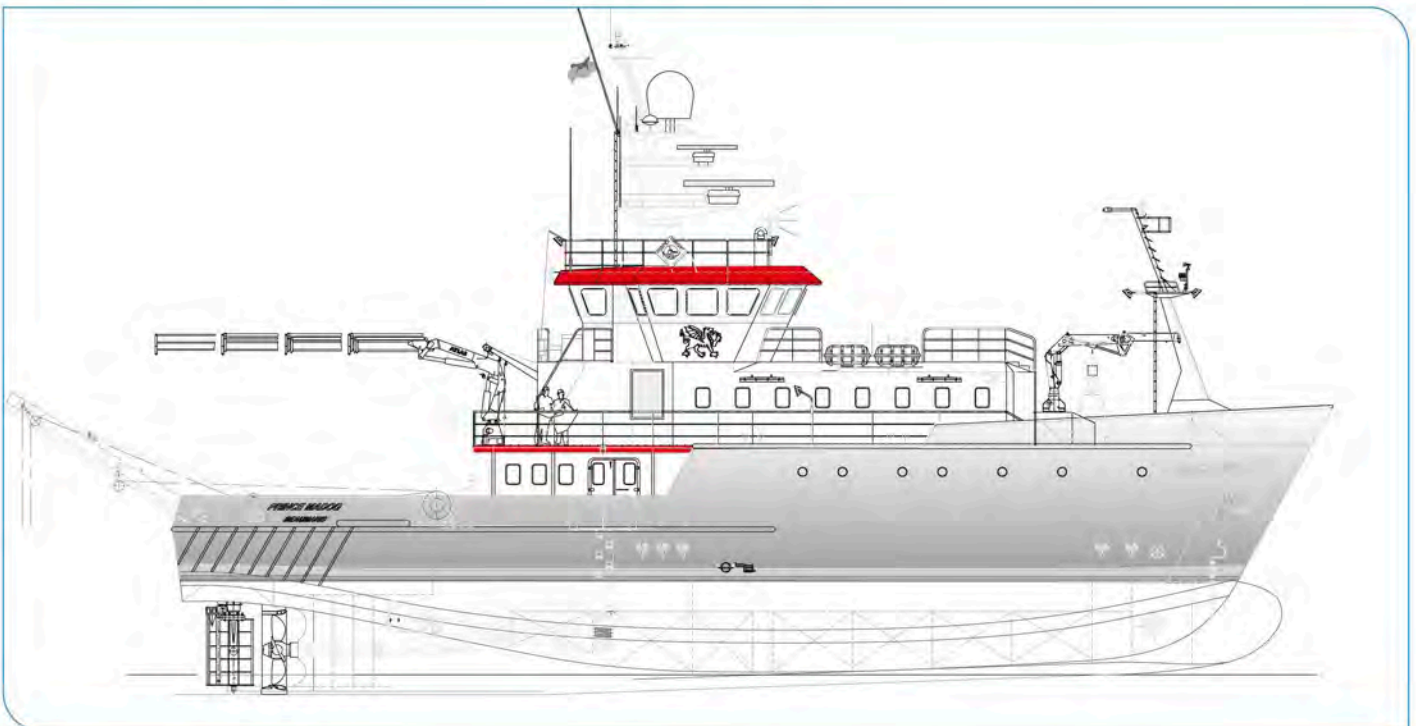
Accommodation	18 total Crew (7/8) Surveyors (11/10)
Double Cabins	5 En-Suite
Single Cabins	8 En-Suite
Deck Space	80m <sup>2</sup> (aft)

## 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 and low Speed Drive Motor
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 tonne @ 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 (2x1000m 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	2 x 260 litre freezers, 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	Furuno Fax, Nokia GSM Transceiver, Toshiba GSM Fax, Toshiba Fax, Inmarsat-B, Inmarsat-C (e-mail only) Broadband (Alongside Menai Bridge), E-mail via GRPS GSM Mobile



SPECIFICATION SUBJECT TO CHANGE WITHOUT NOTICE

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



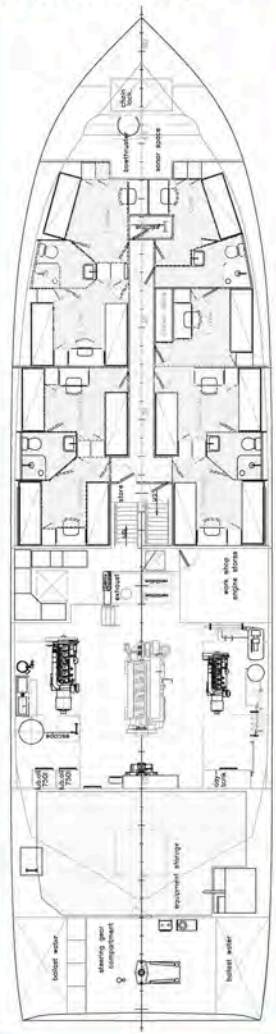
## Survey Equipment

Hydroacoustic & Geophysical	RESON 7125 SV2 Ultra high resolution (200kHz & 400kHz) Multibeam Echosounder, ADCP, RDI Workhorse Mariner (hull mounted), Remote speed log display, Kongsberg Simrad HRP-410P USBL, Hypack Hydrographic Survey System, Geoacoustics/ORE 3.5/kHz Pinger, QTC View Acoustic seabed classification system, Scintrex MP-3 Proton magnetometer Sidescan Sonar (C-Max 800 Dual Frequency), Seistec Sub-bottom profiler
Seismic	Scientific Compressor (for Airgun Source) Sparker Seismic Source 12 cu.in Airgun Seismic Source
ROV/UW Camera	Phantom ROV Rovtech video camera system (inc all systems) Photosea Stills Film camera system Camera sledge, frame, buoys etc
Trawling	2m Beam trawl 4m Beam trawl Otter Trawl (8 fathom Rockhopper)
Sampling	Day Grab (sieve table) Shipek Grab Gravity Corer
IT Systems	Kongsberg Simrad MDM 400 Data Management System Windows©2000 Server for data collection, display and processing, GSM (GPRS) email communications
Meteorological & Oceanographic Equipment	W.S. Ocean Systems underway meteorological and oceanographic sensor suites, Milli-Q Purified Water system Seabird 911 + CTD with SBE32C water sampler, Minibat Undulator (with Seabird sbe19 CTD)
CCTV	Three cameras view forward, starboard and aft of vessel

Main Deck



Below Main Deck



Bridge & Forecastle Deck

