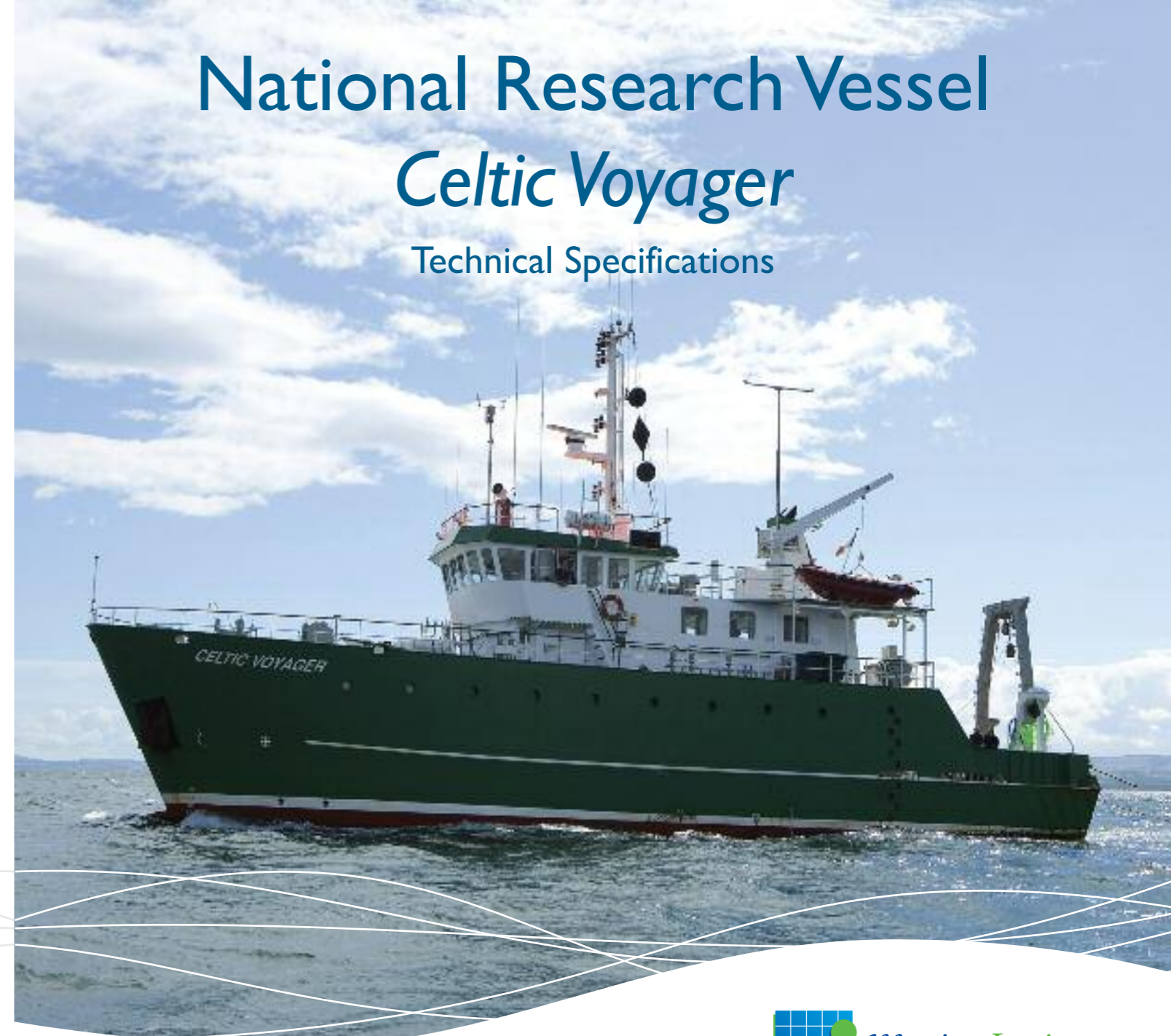
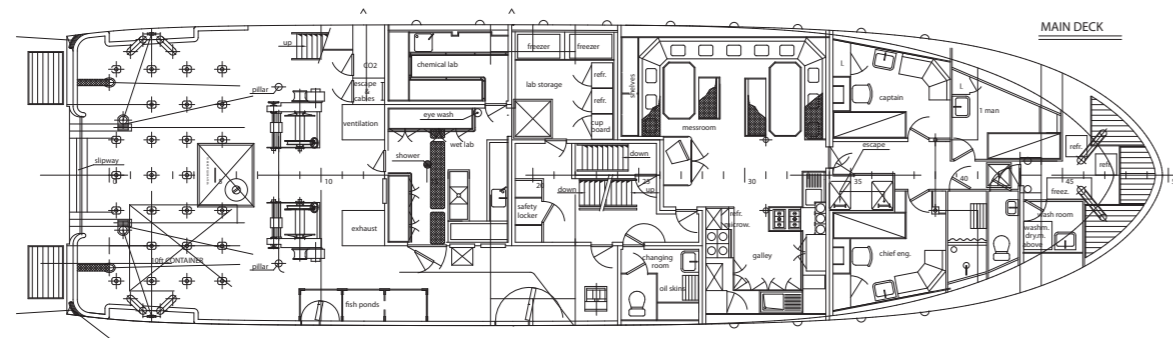
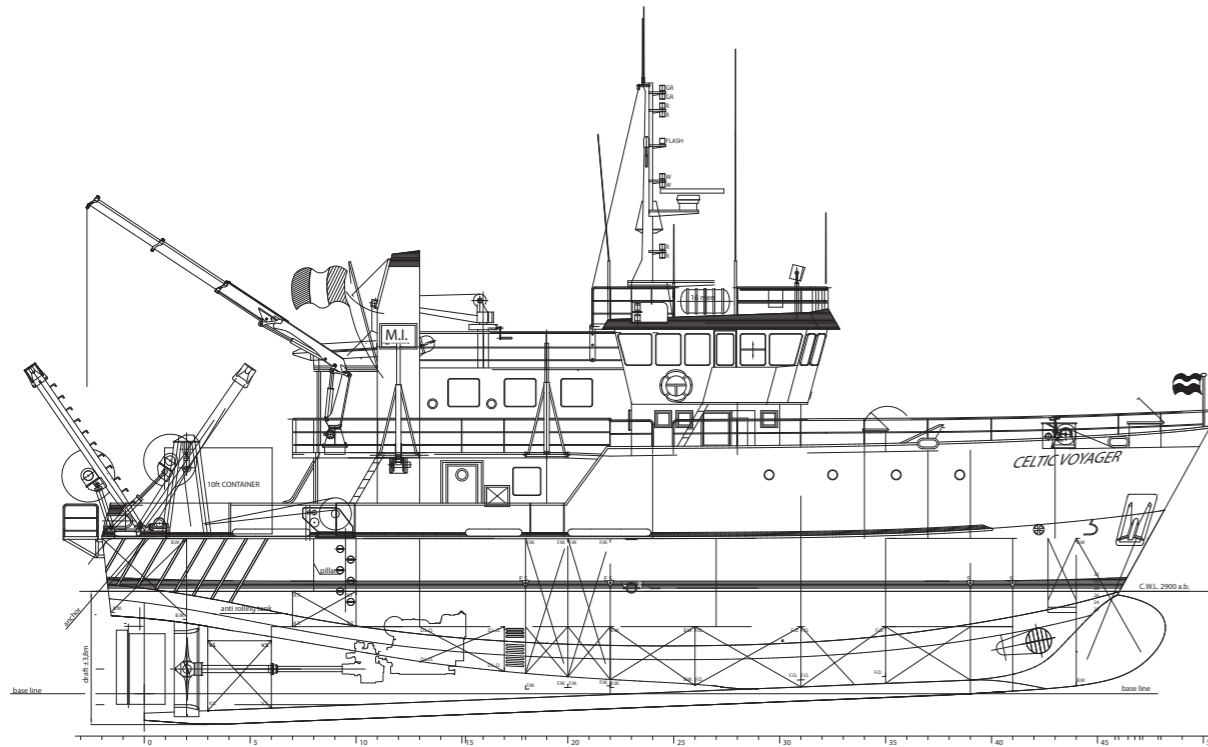


National Research Vessel

Celtic Voyager

Technical Specifications



General

Multipurpose research vessel suited to coastal research and offshore survey operations. Used for a variety of applications including fisheries research, environmental monitoring, seabed mapping, oceanographic, meteorological, weather buoy maintenance and student training.

- Stabilisation tank
- Bulbous bow
- Acoustically insulated
- Main deck provided with matrix of stainless steel flush sockets
- Capacity to carry one 10ft container

Main features

Length o.a.	31.4m
Beam	8.5m
Draught	4m
Gross tonnage.....	340T
Type.....	Steel hull, multi-chined construction, single screw
Lloyds classification	100 A1 Research Vessel, LMC
Speed.....	≤ 10 knots
Endurance	14 days
Safety.....	Complies to IMO, Lloyds, and all national and international requirements
Accommodation.....	15: 8 scientists, 7 crew. Scientists' quarters: 4 two-man berths
Deck area.....	35m ²

Propulsion

Main propulsion	Baudouin 26.2 655 KW ZF Marine Gearbox + Berg propeller Van de Giessen wing nozzle
Bow thruster	Berg 104kW
Electrics	2 x 68kW, 400V, 3PH, 50Hz generator 1 x 38kW, 400V, 3PH, 50Hz generator 24V DC net (emergency and start-up)
Clean net converters ..	1 x 12kVA, 400V/220V 1 x 20kVA, 400V/220V

Navigation and communication

Depth measurement	Furuno FCV 291 Echo sounder
GPS	Simrad MX500 Differential GPS Furuno DGPS
Radar	Koden MDC 2900P/ Bridgemaster E180EPA
Gyro compass	Anschutz STD 20m
GPS Compass	Furuno SC50
Autopilot	Robertson AP9
Speed Log.....	Anthea Log
Electronic Charting	Maxsea Time Zero
Electronic Charting	OLEX Plotter
Navtex Receiver	Furuno NX500
Radio	Furuno SSB transceiver + DSC watch receiver Furuno FM 8000 VHF ICOM 120 VHF (handheld)
AIS	Furuno FA-100
Sea temperature.....	Furuno Ti20
Phone	Cellfax Plus GSM (when in range)
Data.....	4G when in range. (Iridium Pilot when out of range)
Satellite comms (data and voice)	Iridium Pilot SAT Phone Furuno Felcom 12 Sat C terminal
VSAT Broadband	SeaTel 3011
SAT TV	SeaTel Costal 24 61 cm dish

Facilities

Dry laboratory	21m ² . Workstations for EM3002/2040, ADCP, Seapath 330+, Data Acquisition System and winch controls, chart table and storage.
Wet laboratory.....	14m ² (wet lab), 6m ² (chem). Stainless steel work benches, refrigerators, LAN connection, sea- and freshwater supplies.
Storage + freezer	Additional 9m ² of laboratory storage space.
Electronics lab.....	1 electronics laboratory.
Containers	Capacity to carry one 10T lab container.

Deck equipment

General purpose winches (x 2).....	Capacity 1,000m of 16mm wire (each). Pull on bare drum 10T. Bare drum ø 260mm min	Portable single net drum (x3)	4, 9 and 12T respectively. Mounted between the vertical legs of the A-frame. Pull on bare drum 4T.
Hydrographic winch	Capacity 1,000m of 6mm galvanized wire. Pull on bare drum 1T. Bare drum ø 200mm.. Variable speed control (fwd + reverse).	CTD winch	Hydraulic winch with remote control. Fitted with 1100m of 6.5mm wire.
Side derrick, forward.....	Hydraulically operated with one luffing ram and one extension ram controlled as two separate functions. Length extended 3m, retracted 2m. Max static load at full extension 1,000kg.	Aft starboard winch.....	Small winch with a boom. Fitted with 300m of 4mm stainless steel wire.
A-frame, stern mounted	Clear opening 2.5m wide x 4m high. SWL at the centre of the crossbeam 10T. Hydraulically operated. Swing through an angle of 90°. Three-eye plates on the crossbeam each with 10T SWL.	Crane	19 T/m Guerra marine crane.

Permanent Scientific Equipment

General

Motion reference system	Kongsberg Simrad, Seapath 330+/MRU5+
Underway data logging	NOAA SCS System
USBL	iXBLUE GAPS; installed in dedicated retraction unit
Weather system	Meteo France BATOS Weather Station

Acoustic surveying

Forward Multi-beam echo sounder	Kongsberg Simrad EM3002
Forward SV Probe	AML Smart SV
Mid Ships Multi-beam echo sounder	Kongsberg Simrad EM2040 Dual RX
Mid Ships SV Probe	AML Smart SV
Survey Navigation Software.....	QINSY
Primary Positioning	C-Nav 3050 with Z for tidal
Secondary Positioning.....	Seapath 330+
Single-beam echo sounder (Hydrographic)	Kongsberg Simrad EA400

Sub-bottom profiler, hull mounted	SES Probe 5000, 2x2 array
Sound velocity profiler	AML SVPlus

Marine biology and fisheries research

Fluorometer (underway)	Wetlabs Wetstar
Net drum	MTL
Sorting table + Hopper.....	MTL

Physical/chemical oceanography

ADCP, hull mounted	RDI Ocean Surveyor 486P/50
CTD and rosette sampler	2 x SBE 911 CTD with SBE 32 carousel, 12 position.
Water samplers	12 x 5l water samplers (Nansen type) 5 Hydro-Bios Transparent Plastic Nansen (TPN) bottles, 1.7l
Thermosalinograph	Seabird, SBE 21 and SBE38

N.B. These specifications are subject to change without prior notice. The details are believed to be correct but cannot be guaranteed.