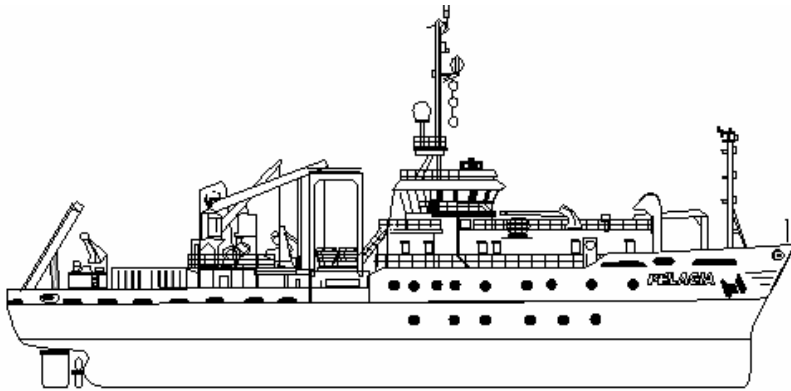


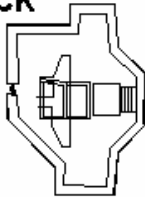
RV PELAGIA TECHNICAL SPECIFICATIONS



RV PELAGIA G/A Plan and deck lay-out



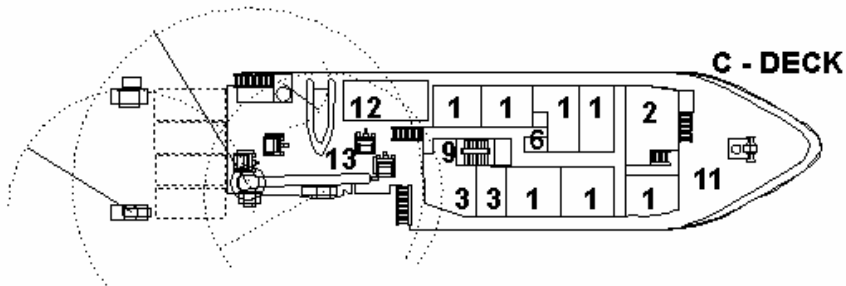
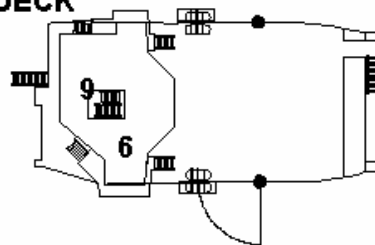
TOPDECK



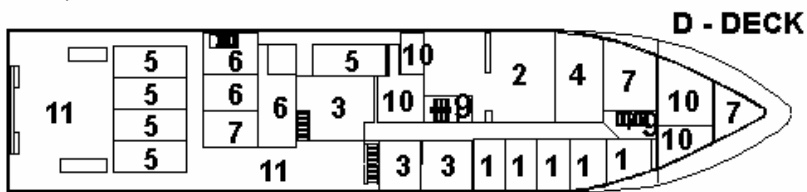
BRIDGE



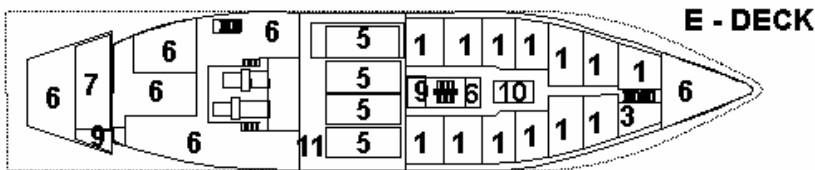
B - DECK



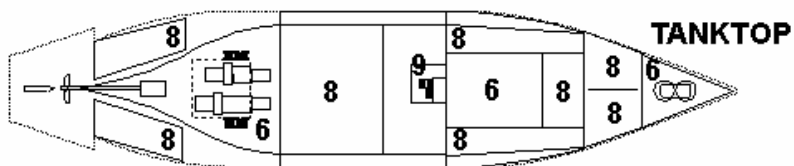
C - DECK



D - DECK



E - DECK



TANKTOP

| | |
|----|----------------------------|
| 1 | Single cabins |
| 2 | Mess/lounge Meetingroom |
| 3 | Laboratories |
| 4 | Galley |
| 5 | Containers |
| 6 | Technical spaces |
| 7 | Stores |
| 8 | Tanks |
| 9 | Staircase |
| 10 | Public space |
| 11 | Workspace |
| 12 | Hatch |
| 13 | Winch deck |



Research Vessel PELAGIA

NIOZ RoyalNetherlands Institute for Sea Research

SHIPDATA INDEX

- Owners
- Registration & Classification
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- Accommodation
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- Propulsion
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- Propellor
- Bow Thruster
- Electric Supplies 50 Hz
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- Navigation Systems
- Nautical Instruments
- Laboratories - Deckspace - Workshops
- Gasses (to laboratories and lab- containers)
- Universal Cabling System (for semi-permanent equipment)
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 - Semi-permanent
- Data Aquisition and Processing System
- Side - A - Frame
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- Stern-Winches (hydraulic driven)
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- Cranes (hydraulic driven)
 - Container-Crame
 - Container Hoist
 - Folding Cranes
 - M.O.B. Crane
 - Liferaft Cranes

URL: <http://www.nioz.nl/> under research facilities



SHIPDATA

OWNERS

NIOZ Royal Netherlands Institute for Sea Research
Address: P.O.Box 59, NL-1790 AB Den Burg, Netherlands
Phone: (+31) (0)222 369300
Fax: (+31) (0)222 319674

REGISTRATION & CLASSIFICATION

Port of registration: Texel
Classification: Bureau Veritas
1 3/3 E Deep Sea
Ice 111. AUT. MS
Official nr: 18179 ZR 1991
IMO nr: 9001461

SHIP / SHORE COMMUNICATION

Call Sign: PGRQ
Sattelite communication
Satcom. Phone nbr: 00.871.763964127
Satcom. Fax nbr: 00.871.764091188
GSM nr: +31(0)6-51338399
Radio transceivers Sailor MF/HF/VHF

PARTICULARS

Length over all: 66,045 mtr.
Beam: 12,80 mtr.
Depth molded: 6,80 mtr.
Summer draft: 4,00 mtr.
Gross tonnage: 1615 tonnes
Nett tonnage: 484 tonnes
Displacement: 1671 tonnes
Deadweight: 525 tonnes
Cruising speed: 10 knots
Fuel consump at cruising speed: 6 m3 per day (max)

TANK CAPACITIES

Fuel oil: 200 m3
Fresh water: 80 m3
Clean seawater: 23 m3
Ballast water: 210 m3
Anti rolling tanks: 2 x 45 m3
Gray water: 1 x 32 m3 + 1 x 10,8 m3
Lubricating oil: 7,5 m3
Hydraulic oil: 3 m3
Used oil: 4,5 m3
Sludge: 2,8 m3

ACCOMODATION

Total cabins: 25 single berth + toilet / shower
Crew: 11 persons
Scientists: 14 persons incl. technical support
Messroom + lounge: 28 m2 + 25 m2
Meetingroom: 18 m2
Gymnasium: in the hold
Laundry: 12 m2
Changing room: 16 m2 + toilet and shower
Aircondition: suitable for tropics



SAFETY EQUIPMENT

Man overboard boat: 1 x 6 persons
Liferafts: 4 x 25 pers. dinghy + 34 survival suits
Fire-alarm system

MAIN DIESELENGINES - ALTERNATOR DRIVE

Port: 673 kW
Starb: 1020 kW

PROPULSION - ALTERNATORS

Port side: 673 kVA - Maindiesel driven
Starboard: 1030 kVA - Maindiesel driven
Voltage: 3 x 660 Volt

PROPULSION - ELECTRIC MOTOR

Power: 1000 kW
Voltage: 3 x 660 Volt
Revolutions, thyristor contr: 1000 - 0 - 1000 rpm

PROPELLOR

Number: 1 - with fixed pitch
Revolutions: 230 - 0 - 230 rpm

BOW THRUSTER

Type: Omni directional
Power - Thrust: 450 kW - 4200 kg thrust power
Voltage: 3 x 660 Volt
Revolutions / drive: 0 - 600 rpm / electro motor

ELECTRIC SUPPLIES

Boardnet alternators: 2 x main diesel driven
Power: 275 kVA - each
Boardnet supply: 3 x 380 Volt - 50 Hz, max 125 Amp.
Laboratory supply: via Trafo 3 x 380 Volt + zero - 50 Hz, max 80 KVA
Laboratory supply: 220 Volt-single phase - 50 Hz
Lab supply via UPS: 220 Volt stabilised - 50 Hz
UPS: 1 x 10 kVa - 15 min. + 1 x 8 kVa - 10 min.
Shore connection: 3 x 380 Volt. - 125 Amp.
Aft ship: 2 x 32 Amp + zero - 3 phase - 380 Volt

HARBOUR -/- EMERGENCY SET

Power: 230 kVA
Voltage: 3 x 380 V - 50 Hz

NAVIGATION SYSTEMS

Auto pilot (adaptive): Plath Navipilot MRID
Arpa radar: KH-HR 3000 A / 2 / 6 X-band
True motion radar: Furuno FR-2130S (10 cm)
Speedlog: Ben Galatee MK3
Video echosounder: Furuno FCV140 - 50 / 200 kHz
Echosounder: Radio Holland EL- 4242 C
Echosounder: Furuno FE-606 registrating
Decca navigator: Philips MK 5
Loran - C: (Optional) MLR-LRX 22P dual channel
DGPS: Sercel NR 103
Colour plotter: Electronic charts navigation computer
Transas ECDIS BA charts

NAUTICAL INSTRUMENTS

NAVTEX Receiver: Lokata NL-2
Weather Fax Receiver: Furuno FAX-214
Direction finder VHF: (Optional)
Ship Security Alert System SSAS: Furuno Felcom 12



LABORATORIES -- DECKSPACE -- WORKSHOPS

Fixed laboratories

| | |
|------------------|-----------------|
| Computer room: | 8 m2 on C-deck |
| Measuring room: | 20 m2 on C-deck |
| General wet lab: | 30 m2 on D-deck |
| Dry laboratory: | 15 m2 on D-deck |
| Wet chem. lab: | 15 m2 on D-deck |

Containerised laboratories

| | |
|--------------------------|--|
| | 5 general - wet lab |
| | 4 Thermostated - wet lab |
| | 2 Chemistry - clean lab |
| | 4 Nutrients-analiser labs |
| | 1 container holding 6 x 400 liters cooling/freezing sample storage |
| | 2 Isotopes-lab |
| | 9 other special purposes labs |
| | 9 transport containers |
| Total container capacity | 3 + 1 (spare) - on D-deck aftship |
| | 1 - in hold on D-deck |
| | 4 - in hold on tanktop |
| Workspace D-deck: | 135 m2 without containers |
| | 75 m2 with 4 containers |
| Deck workshop: | 20 m2 on D-deck |
| Engine room workshop: | 25 m2 on E-deck |

GASSES to laboratories and labcontainers

Bottles with Nitrogen--Hydrogen--Oxygen--and 1 choice gas can be connected up in a gasstation on the aft. Deck where the pressure will be reduced to approx 6 bar. Dry compressed air and propane are also available.

UNIVERSAL CABLING SYSTEM for semi-permanent equipment

Copperbar/litz for: Earthsystem with 1 massa conn.

Multi twisted-screened copperpairs for:

Low freq.sign. DC 100 kHz or low speed data till 100 Kbaud

Coaxial cables, 50 and 75 Ohm for:

High freq.signals, 100 kHz - 100MHz

Glassfibre backbone and thinwire for:

High speed data 10 megabit/second

Special cable for:

High powered pulsesignals

This cable system interconnects relevant places such as masts – bridge – computerroom – measuringroom - laboratories - various cabins – deck workshop-labcontainers - winch-stands and afterdeck onto which semi-permanent equipment can be connected in order to transmit or to receive data / signals to and from the above mentioned places.

Permanently fixed equipment is already hooked up to the system and this data can be received in the before mentioned places, if desired. (see data aquisition system)

DATA COMMUNICATION SYSTEM

Network infrastructure:

Ethernet IEEE-802.3

Protocols:

TCP / IP + SMB

PC network software:

Native MS-Windows networking

Server:

2 SUN Ultra-5 systems

Peripherals:

Kyocera FS-3800 printer
Beamer

E-mail:

Operational; messages are received/sent once per hour (limit 100 kbytes)

Guest scientists who carry their own PC aboard ship wishing to connect it to the ship's network have to provide for their own matching hard- and software.

When in doubt please contact NIOZ.

**SCIENTIFIC EQUIPMENT** (permanently installed)

| | |
|-------------------------|---|
| Scientific echosounder: | Kongsberg EM302 Swath Multibeam with ping and Chirp |
| Penetr.echosounder: | Datasonic Chirp CAP - 6000 |
| Echosounder 3.5 kHz: | Oretech 3010, 10kW |
| CTD / rosette sampler: | Seabird / Technicap |
| Aqua flow system: | Chelsea, connected via: ABC-system |
| Planktonpump: | Membrane pump |
| Meteo system: | KNMI |

SCIENTIFIC EQUIPMENT (semi-permanent)

| | |
|------------------------------|-----------------------------|
| Acc.Doppler currentprofiler: | R & D Hull mounted |
| Boxcores: | Various types |
| Pistoncore: | Up to 24 mtr at 8000m depth |
| Vibrocore: | Up to 6 mtr at 100m depth |
| Fishing nets: | Various types |
| Pole for USBL transmitter | 4 m below sea surface |

DATA AOUISITION and PROCESSING SYSTEM

| | |
|--|--------------------|
| Make: | NIOZ |
| Type: | ABC system |
| Parameters logged every few seconds: | |
| Position from: | GPS |
| Course from: | Gyro compass |
| Depth from: | Echosounder |
| Relative windspeed and direction-- airtemperature and relative humidity-- barometric pressure and solar radiation from: | KNMI |
| Surface seawater fluorecence-- temperature--salinity and turbidity from: | Seabird SBE21 |
| Salinity--Temperature-- Depth and optional fluorecence, oxygen and carbon dioxyde from: | Seabird CTD system |

| | |
|--------------------------|---------------------------|
| SIDE - A - FRAME: | on C-deck sb |
| Swl: | 10 tonnes |
| Reach-outb/inboard: | 3 mtr / 3mtr |
| Height above deck: | 8 mtr |
| Framewidth: | 3 mtr |
| Control: | bridge + on site (remote) |

SIDE-WINCHES (hydraulic driven)

| | |
|--------------------------|---------------------------|
| CTD WINCH: | on C - deck sb |
| Max pull: | 5 tonnes |
| Rochester wire/type: | 1-H-285A (1 conductor) |
| Wire size: | 0,288" = 7,32 mm |
| Wire length: | 8800 mtr |
| Workload: | 18.5 KN (4150 lbf) |
| Breaking strength (min): | 46.3 KN (10400 lbf) |
| Slipring - Rekofa: | SM16-500 4poles |
| Wave compensation: | spring compensator |
| Control: | bridge + on site (remote) |

| | |
|----------------------------|---------------------------|
| SIDE WINCH: | on C - deck sb |
| Max pull: | 10 tonnes |
| Wire: | steel 3 x 36 |
| Wire size/length/strength: | 14 mm I 3000 mtr / 131 kN |
| Control: | bridge + on site (remote) |



| | |
|---|------------------------------------|
| AUXILIARY WINCH: | in side-frame |
| Max pull: | 5 tonnes |
| Wire: | steel |
| Wire size / length: | 12 mm / ca. 250 mtr |
| Control: | bridge + on site (remote) |
| HYDROGRAPHIC WINCH: | |
| Max pull: | 200 kg |
| Wire: | stainless steel |
| Wire size / length: | 6 mm / 500 mtr |
| Control: | D-deck midship starboard valve |
| STERN-A-FRAME | |
| Swl: | 10 tonnes |
| Reach-outb/inboard: | 3 mtr / 5,5 mtr |
| Height above deck: | 8 mtr. working height |
| Framewidth: | 6,5 / 8 mtr - total width 12 mtr |
| Control: | bridge and cabin aftdeck, + remote |
| STERN-WINCHES (hydraulic driven) | |
| TOWING WINCH: | on C - deck aft. |
| Max pull: | 5 tonnes |
| Rochester type: | 90463 I 3 cond + 3 coax |
| Wire size: | 0,463" = 11,76 mm |
| Wire length: | 900 mtr |
| Workload: | 1 ,32 tonnes |
| Slipring - Rekofa: | SM16-500 12poles |
| Control: | bridge and cabin aftdeck, + remote |
| STERN WINCH: | on C - deck aft |
| Max pull: | 10 tonnes |
| Wire: | steel 6 x 36 ws+st c |
| Wire size / length: | 18 mm / 2000 mtr |
| Control: | bridge and cabin aftdeck + remote |
| AUXILIARY WINCH: | 2x in stern. frame |
| Max pull: | 5 tonnes |
| Wire: | steel |
| Wire size / length: | 12 mm / ca. 250 mtr |
| Control: | cabin aftdeck + on site (remote) |
| CAPSTAN: | 2 x on D-deck aft. ship |
| Max pull: | 5 tonnes |
| Control : | D-deck aft |
| OUTRIGGER: | 2 pc a 6 mtr |
| Location: | port + sb side of sternframe |
| CRANES (hydraulic driven) | |
| CONTAINER-CRANE: on C-deck sb | |
| Lifting capacity - swl: | 10 / 7,5 tonnes |
| Reach min--max: | 2,1 - 10.5 / 14,5 mtr |
| Slewing angle: | 360 degr. Continuous |
| CONTAINER HOIST: | in containerhold midship |
| Lifting capacity - swl: | 2 x 2 x 2500 kg |
| Reach: | travelling through hold |
| Control: | on site (remote) |



FOLDING CRANES:

Lifting capacity - swl:
Reach min - max:
Slewing angle:
Control:

1 on sb C-deck
1 on sb D-deck aft
2,5 tonnes
0,6 - 9,9 mtr
360 degr. continuous
on site (remote)

M.O.B. CRANE:

Lifting capacity - swl:
Reach - fixed:
hoisting speed:
Control:

On funnel
1100 kg
3,40 mtr
18 mtr / min
Remote lowering / el. hydr hoist

LIFERAFT CRANES:

Lifting capacity - swl:
Reach - max:
Lowering speed:
Control:

On C - deck- 1 x port and 1 x sb
2,1 tonnes
4,35 mtr
30 - 40 mtr / min
Remote-lowering-hand hoist

FOR MORE INFO, CONTACT:

Theo Buisman
buisman@nioz.nl
Schip Management and Logistics
P.O.Box 59
NL-1790 AB Den Burg (Texel)
The Netherlands
Tel. (+31) (0)222 369375
Fax. (+31) (0)222 369480

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