


ROMANIA - NATIONAL UPDATE

R/V MARE NIGRUM

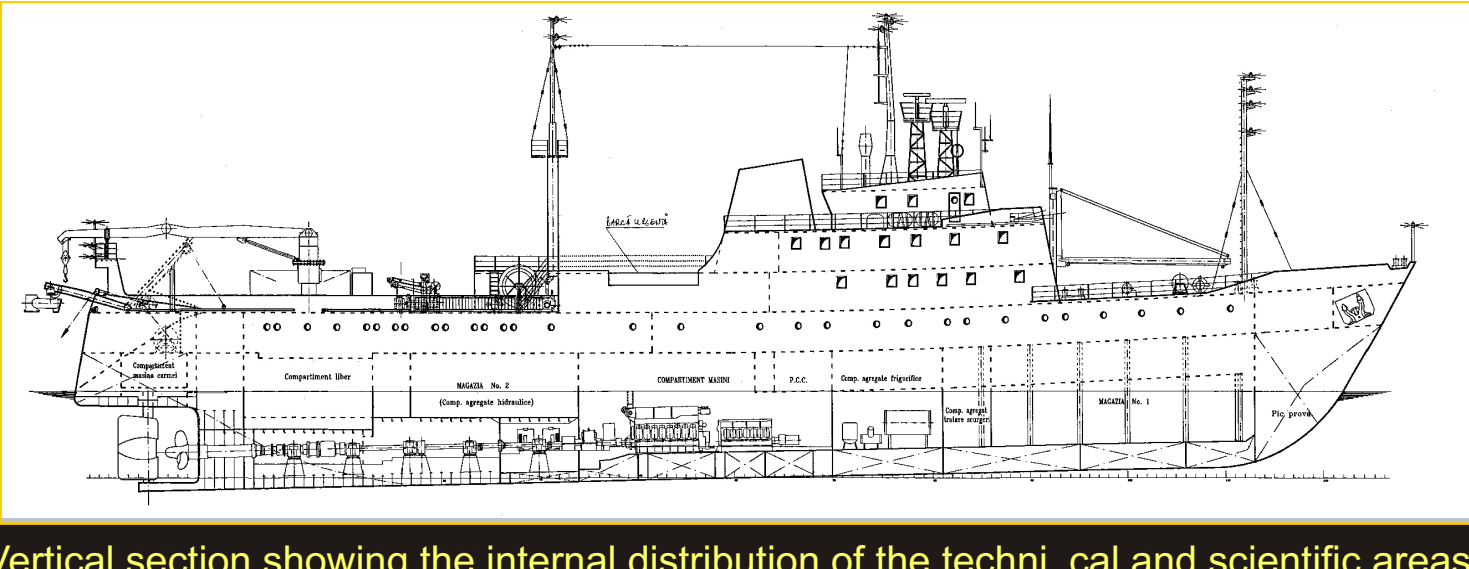
R/V ISTROS

Vessels and Facilities

Research Vessel *Mare Nigrum*



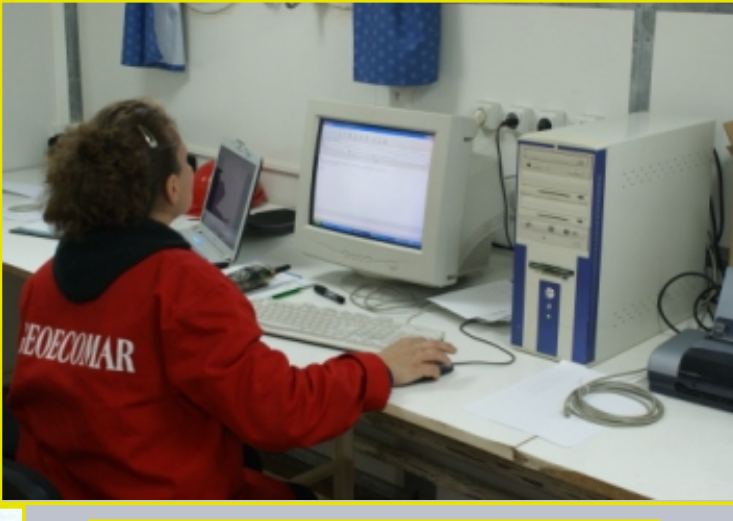



Owner: GEOECOMAR, Romania



Vertical section showing the internal distribution of the technical and scientific areas

Days on the sea - 2009

R/V Mare Nigrum	R/V Istros
85 days	172 days

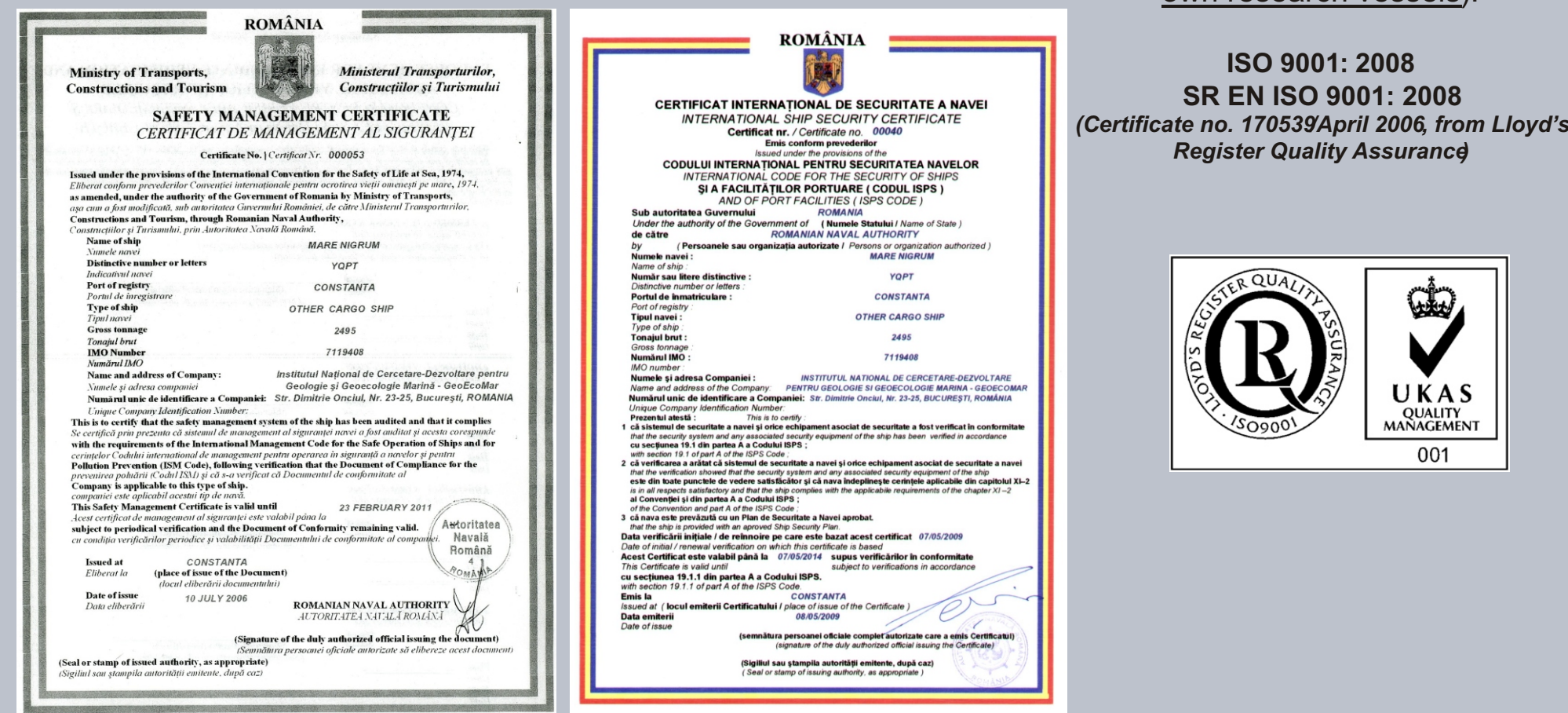





Codes implementation


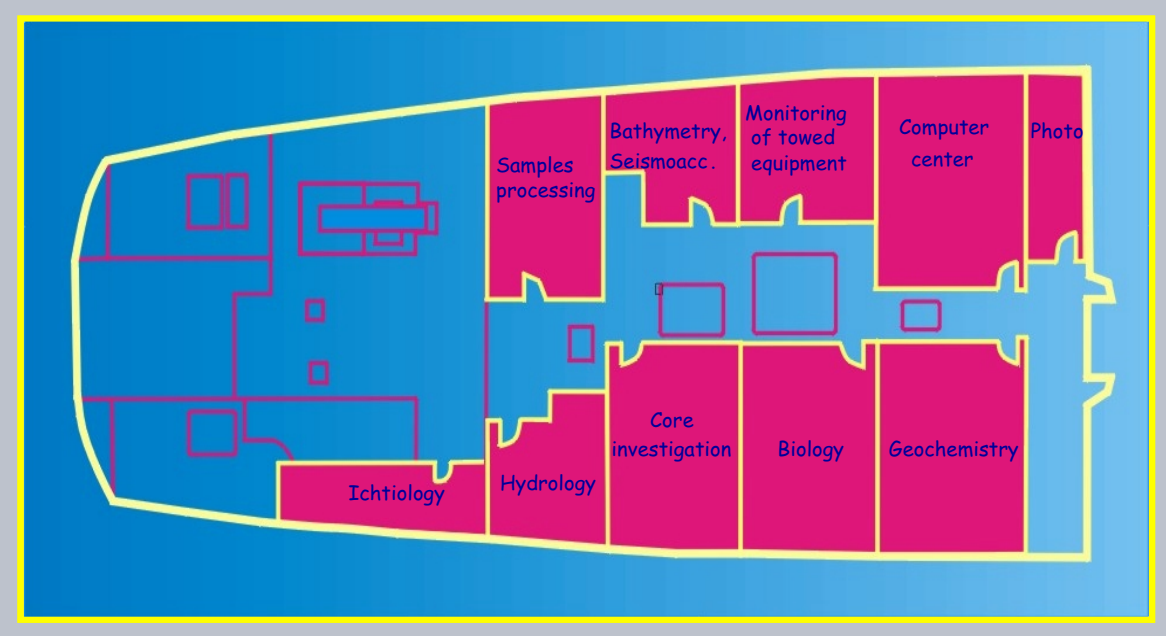
R/V Mare Nigrum: ISM Code Certificate no. 000024 / February 2006
 R/V Mare Nigrum: ISPS Code Certificate no. 00040 / May 2009

GEOECOMAR – certification for scientific activities (including the scientific activities on-board of the own research vessels):

ISO 9001: 2008
 SR EN ISO 9001: 2008
 (Certificate no. 176539 April 2006 from Lloyd's Register Quality Assurance)




Laboratories on board

- Wet lab
- Hydrology
- Geophysics
- Biology
- Geochemistry
- Computer room
- Seismo-acoustics
- Tomography
- Photo

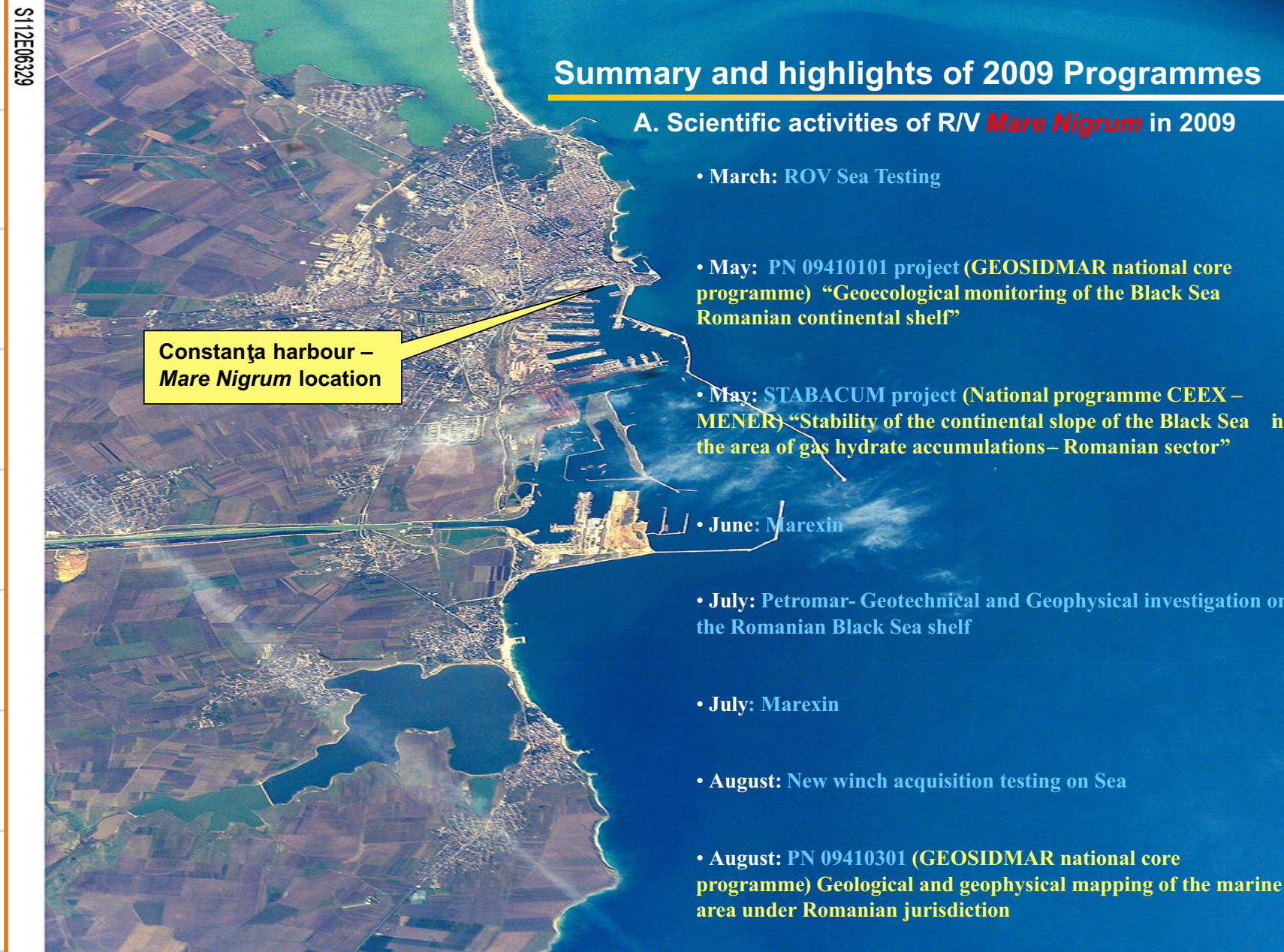
- Total area ~ 200 m²
- Computer network
- Air conditioning
- Sea and freshwater



Summary and highlights of 2009 Programmes

A. Scientific activities of R/V *Mare Nigrum* in 2009


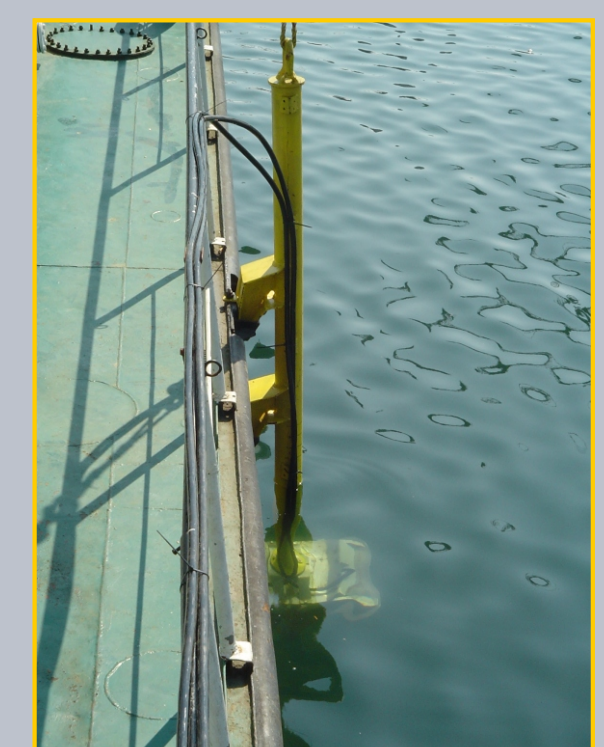
- March: R/V Sea Testing
- May: PN 09410101 project (GEOECOMAR national core programme) – "Geological monitoring of the Black Sea Romanian continental shelf"
- May: STABACUM project (National programme CREY-MENRS) – "Stability of the continental slope of the Black Sea in the area of the tectonic accumulation – Romanian sector"
- July: Petromar – Geotechnical and Geophysical investigation on the Romanian Black Sea shelf
- July: Marexin
- August: New winch acquisition testing on Sea
- August: PN 09410301 (GEOECOMAR national core programme) – Geological and geophysical mapping of the marine area under Romanian jurisdiction



I.1 Activities of R/V *Mare Nigrum* in 2010


- March 2010: INTECSEA – Geophysical and Geotechnical investigation along two proposed pipeline routes for Black Sea.
- April: Marexin BV
- May 2010: INTECSEA – Geophysical and Geotechnical investigation along two proposed pipeline routes for Black Sea.
- May 2010: Hypox – Installing the long-term observatory for oxygen concentration
- May 2010: PN 09410101 – Complex geoeological monitoring of the Black Sea Romanian continental shelf
- June: Marexin BV
- August: Hypox – Recovery of the observatory, *i n-situ* experiments with a benthic chamber lander
- August: PN 09410301 – Geological and geophysical mapping of the marine area under Romanian jurisdiction
- September: Marexin BV

R/V *Istros* – The main component of the fluvial infrastructure

Dimensions:
 Length – 32 m
 Breadth – 6.92 m
 Height – 1.65 m
 Displacement – 171 t
 Crew – 7
 Scientific crew – 10

Multibeam Bathymetric System SEABEAM 1050 ELAC – Nautik (180 KHz)
 DGPS OMNISTAR HP
 DGPS Trimble R3 System
 CEEDUCER PRO – Digital Hydrographic Survey System



Scientific activities of R/V *ISTROS* in 2009

- UE FP 6 CONSCIENCE project – "Concepts and science for coastal erosion management"
- PN06270103 (GEOECOMAR National Core Programme) – "Danube Delta - interdisciplinary studies and detailed cartographic documentation (maps and/or geological, geophysical, geoeological profiles), in order to assess the environmental state and the evolution tendencies under anthropogenic pressures, sea-level and climatologic changes"
- PN06270104 – (project under GEOECOMAR National Core Programme) - "Complex analyses of water, sediments and pollutants fluxes in the Romanian sector of the Danube, Danube tributaries and navigable channels (Danube-Bucharest, Danube-Black Sea, Sulina) in order to assess the environmental impact and the significant mineral resources and prepare general and detailed cartographic materials"
- S.C. TRAPEZ S.A. – INTERGIS GRUP S.R.L. – "Technical assistance for improvement of navigation conditions in the Romanian-Bulgarian sector of the Danube"
- PN06270303 (GEOECOMAR National core programme) – "Technical assistance to governmental bodies and local administrations for integrated management and proposal of national and local measures. Elaboration of hydrological operational models for the Danube, Danube Delta and the Black Sea coast."
- CLIMARISC project (2nd National Programme) – "Application and development of new methods for investigation and dating of major climate and sea level changes from the Danube Delta and the Black Sea for reconstruction of their evolution and forecast of associated risks".

New Acquisitions of GEOECOMAR in 2009


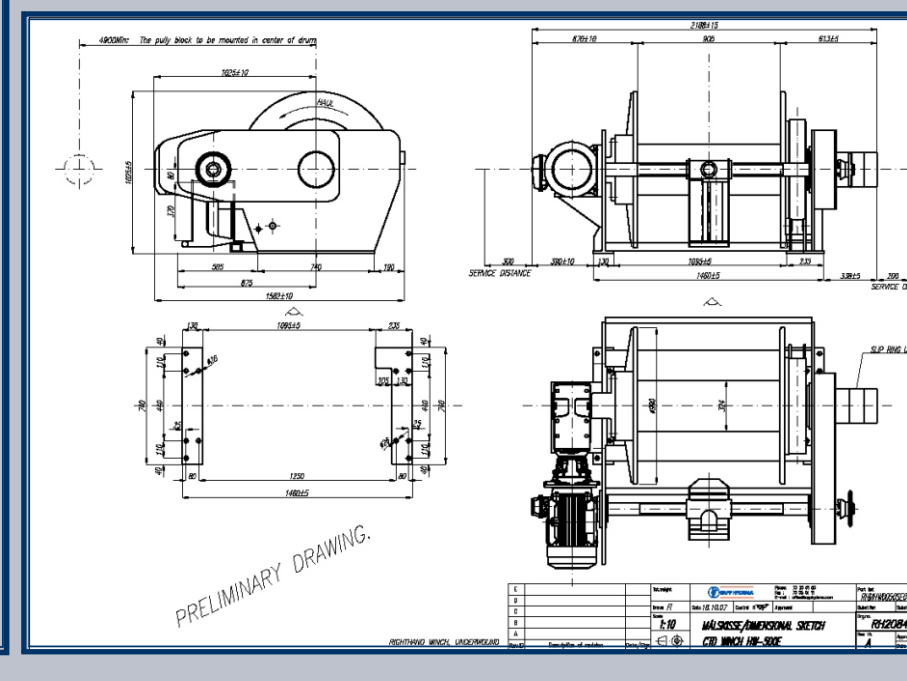
TECHNICAL SPECIFICATION

Electric HYDROGRAPH winch, model HW-400EL

- Drum dimensions: Dia. 324mm, dia. 900 mm x 905mm.
- Leads groove: 12,0 mm wide
- Storage capacity: 3000 m of \varnothing 12,0 mm wire at \varnothing 903 mm
- Level wind: synchronised for 12,0 mm wire over or wound.
- Position of wire entrance: PLC controlled, angle sensors on guiding gear and/or electronic synchronizing.
- Maximum fleet angle: Hydraulic actuated, spring operated band brake with manual adjustment.
- Level wind synchronizing: (B) (APR) Automatic parking brake with electric release during operation.
- Brake type: 1200 kg. per unit, ex. wire.
- Brake control system: Frequency motor control system (MC) (ERL) control of haul in bay is local controlled from the winch and control room.
- Weight approximately: Type Electric system
- Control system: Main Control
- Speed control: continuously frequency speed control (variable speed and dual rotation) (TC) (ER) Tension control to be remote controlled from the panel in the control room.
- Tension Control: Tension and length readout in control room and laboratory.
- Readout:

Winch Performance

Wire layer	Dia (mm)	Speed (m/min)	Pull (kg)
Drum layer	132	14.1	1300
Half layer	620	3.2	193
Top layer	796	2.5	130


Contact:

Stefan FLORESCU
 Head of Research Vessels Department

Bucharest – Phone: +40 21 252 55 12 / 232; Fax: +40 21 252 25 94; Mobile: +40 722 566 207
 Constanta – Phone/Fax: : +40 241 54 84 20
 R/V Mare Nigrum – Phone: 00871 763 688 774; 00871 688 763 775; Fax: 00871 600 501 966
 E-mail: stefan.florescu@geocomar.ro
 www.geocomar.ro

