

M/N OGS Explora



Technical Specifications

General

Name	OGS Explora
Owner	Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS
Built	Elsflether Werft A.G., Germany, 1973
Flag	Italian
Port / No.	Trieste - 764
Call Sign	IXWQ
IMO No.	7310868
Class	100-A-1.1-Nav IL ; IAQ-1 ; Ice Class IB
Material	Steel (hull) / Aluminium (superstructure)
Bunker	MGO

Dimensions

Gross Tonnage	1408 GT
Net Tonnage	422 NT
Overall Length	72.62 m
Moulded Breadth	11.8 m
Moulded Depth	6.55 m
Free Board	2154 mm
Draft	4.8 m
Displacement	1845 t

Main Machinery and Speed

Propulsion	2 x RBV8M545 DEUTZ diesel 8 cyl.-line
Installed power	2 x 1294,5 Kw (1780 HP) 500 rpm
Main gear	LOHMANN & STOLTERFOHT ratio 1:2
Propeller	1 Variable Pitch Propeller ESCHER WYSS
Speed (max)	14 kn
Speed (cruise)	12 kn
Endurance	about 30 days

Auxiliary Machinery

Aux	5 x TAMD 103A VOLVO PENTA 160 Kw
Electrical plant	5 x 200 kVA 440 220 V 50 Hz
UPS	Saft Nife 110/220
Fuel separator	OSD 6 WESTFALIA SEPARATOR
Oil separator	2 x OSD 6 WESTFALIA SEPARATOR
Air compressor	2 x L80 HATLAPA
Fresh water	watermaker MD 2000 TECNICOMAR 5760 l/day watermaker CS 2/44 TECNICOMAR 14400 l/day SFD13 SONDEX 20 t/day
Heater/Boiler	FSM 650 FROHLING 650000 kcal/h WERMERT (500l)
Seismic HP	3 compressors LMF 4 stages 24000 l/min - (140 bar)
Derricks/Cranes	1Derrick 47.48 KN 1Crane HEILA Type HLRM 19/12 – 3SL
Davit	1 davit for life/rescue boat 1 davit for service boat
Serviceboat	Zodiac Ribo 600 (70hp)

Marine Equipment

Magnetic Compass	Reflection Ludolph
Gyro	Gyrostar II Anschutz
Radars	FR2117 FURUNO TM 340AM SPERRY X band Bridgemaster DECCA
AIS	FA100 FURUNO
Autopilot	AP50 FURUNO
GPS	RS5000 SHIPMATE
Solcometer	Dopplerlog EML500 YOKOGAWA
Communications	Inmarsat C SKANTI Scansat CT Inmarsat Fleet Broad Band Inmarsat Fleet77 THRANE IRIDIUM Oilot VSAT data system Vhf SKANTI Vhf 1000 DSC MF/HF SKANTI TRP 1250 SDGTSP Navtex ALDEN AE-900 Rx Sailor R1119 – Tx Sailor T1130 area A4 (SKANTI station)
GMDSS	

Safety

MOB	Recue boat Pesbo BSC 40M
Lifeboat	Pesbo BSC 40M (42 people)
Life rafts	5 x 25, 1 x 20, 1 x 6 (156 people)
Survival suits	48
Fire fighting	Hydrants, hoses and nozzles (3 fire pumps + 1 emergency) 58 portable fire extinguishers CO ₂ extinguishers
Engine room	CO ₂ extinguishers
Compressor room	CO ₂ extinguishers + fixed fire line

Accommodation

IMO crew	10 x single room cabins 4 x double room cabins
Scientific crew	12 x double room cabins
Hospital	1 single berths
Recreation	TV / Video Lounge Gym

Cargo Capacity

2 x 20' container	Location hold 2 nd deck
2 x 10' container	back deck fore deck

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Survey Equipment

Positioning and navigation

GPS	Aquarius THALES, Trimble, Topcon
DGPS	Veripos LD3 decoder (on demand)
Motion Reference Unit	IXSEA OCTANS – MBES interfaced
Gyrocompass	IXSEA OCTANS – MBES Interfaced
Navigation Software	PDS2000

Morphobathymetry

Singlebeam Echo Sounder	Simrad EA600
Multibeam Echo Sounder	
Shallow water	100 kHz Hull Mounted Reson SeaBat 8111
Deep water	12 kHz Hull Mounted Reson SeaBat 7150
Sound Velocity Probe	MIDAS Valeport

Sub-Sea-floor acoustic

Sub bottom profiling	2-7 kHz Hull Mounted Benthos chirp 4 x 4 array transducers
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Multi Channel Seismic

Sound Source	1 x 60 cu. in. Sercel Mini GI gun 4 x 210 cu. in. Sercel GI.guns 4 x 250 cu. in. Sercel G.guns
Firing Control	16 channels RTS Big Shot 4 channels Teledyne Hot Shot 4 channels RTS Sure Shot (spare)
Acquisition System	
Fixed	120 channel Sercel Seal 428 1500 m long solid state digital streamer Channel Distance 12.5 m
Portable	96 channel CNT-2 Geometrics 300 m long Geometrics Geoeel streamer Channel Distance 3.125 m
Streamer Control	I/O System 3 Digicourse 5010 - 5011
Compressors	
Fixed	3 x 24000 l/min (2542 cfm) Leo
Portable	1 x 3500 l/min (125 cfm) Bauer hosted within a 20" container

Gravimetry

Fixed	Bodenseewer KSS-31
Portable	Lacoste & Romberg (port measurements)

Seabed Sampling

Coring	5 m recovery gravity corer
Grabbing	25 kg grab

Oceanography

Physical Properties	Thermosalinograph SBE21 MK21 System
Acoustic profiling	Hull mounted 75 kHz RDI ADCP

Winches

Hydraulic winch OLEO MEC	
Use	Side Scan Sonar / Rosette deployment
Static pull	7.2 tons
Min speed	1.96 m/s
Length	5800 m standard coaxial cable
Diameter	11.4 mm
Location	Back deck

Hydraulic winch OLEO MEC	
Use	Coring
Static pull	4.2 tons
Min speed	1.70 m/s free-fall available
Length	3500 m
Diameter	14.0 mm
Location	Back deck

Electric winch Reson	
Use	magnetometer deployment
Engine power	15 kW
Location	2 nd (lifeboat) deck

Electric winch ARDEA	
Use	SVP and grab deployment
Wire length	1800 m of 8 mm steel wire
Engine power	15 kW
Location	2 nd (lifeboat) deck

Frames and lift equipment

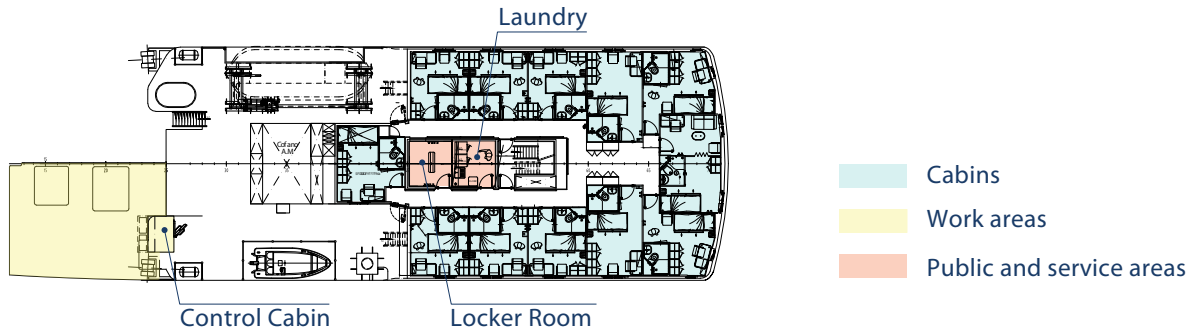
Back deck A-Frame – SWL 20 ton
Starboard side frame equipped with winch (2*50m wire 18mm)
Port side frame equipped with winch (2*50m wire 18mm)
Crane Heila – SWL 6400 kg (Back Deck)
Crane NOVACOVIS - SWL 1360 kg 12 m (Fore Deck)
USBL pole (with joint flange)

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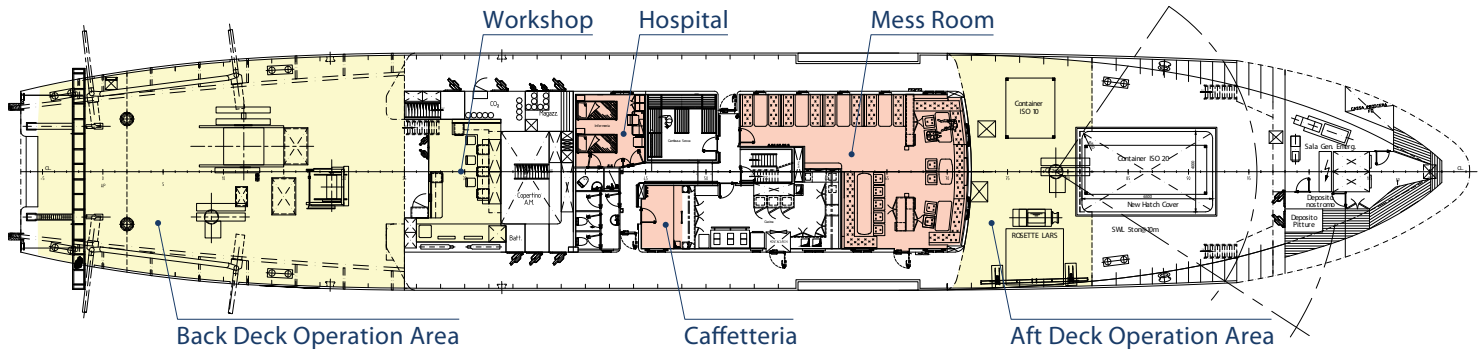


General Plan - Public areas

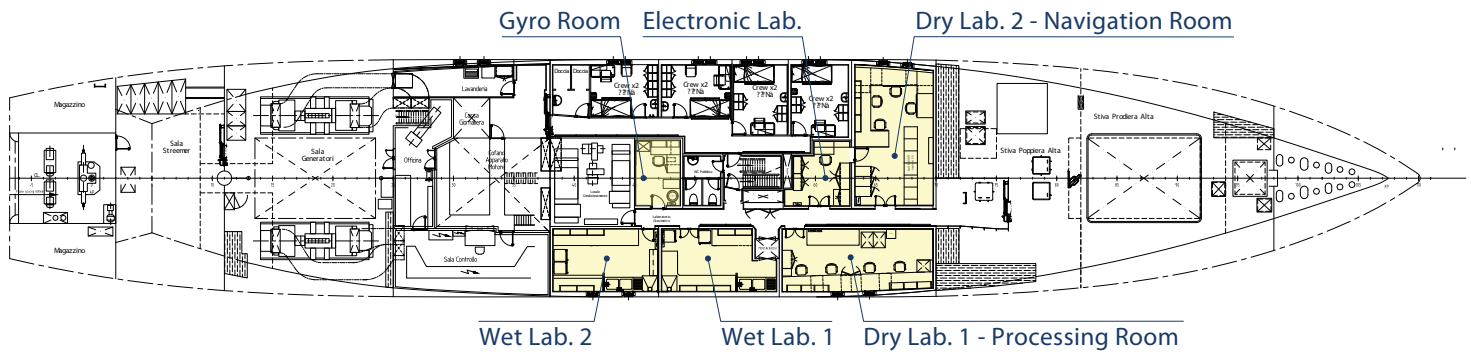
Deck B - Scientific crew cabins



Deck A - Main Deck



1st Deck - Labs



2nd Deck

