

# M/V GEO CARIBBEAN



## VESSEL TECHNICAL SPECIFICATIONS

# 1. MARITIME

## A. VESSEL DETAILS

<b>OWNER</b>	Geo Vessels AS
<b>FLAG</b>	French (RIF)
<b>PORT OF REGISTRY</b>	Marseille
<b>BUILT / REBUILT</b>	2008
<b>CLASS</b>	BV
<b>CLASS NOTATION</b>	1A1 ICE-C SF COMF-V(3)-C(3) HELDK-SH RP E0 CLEAK DK(+) TMON
<b>IMO NUMBER</b>	9401219
<b>SHIP TYPE</b>	Seismic Survey Vessel
<b>CALL SIGN</b>	FIKI
<b>OVERALL LENGTH</b>	100.8m
<b>BREADTH / BEAM</b>	28m
<b>MAX DRAFT</b>	7.5m
<b>GROSS TONNAGE</b>	12108
<b>NET TONNAGE</b>	3633
<b>DEADWEIGHT</b>	5477
<b>FREEBOARD</b>	7.5m
<b>MAXIMUM LOAD SPEED</b>	16 knots
<b>CRUISING SPEED</b>	13.5 kts
<b>FUEL CAPACITY</b>	1800 m3 HFO
<b>FUEL CONSUMPTION</b>	35 Tones per day
<b>LUBRICATING OIL CAPACITY</b>	208 cbm
<b>ENDURANCE</b>	60 days
<b>RANGE AT CRUISING SPEED</b>	14,000 nm – world wide
<b>FRESH WATER</b>	257 m3
<b>FRESH WATER PRODUCTION</b>	2 off FW generators with capacity 15 t/day
<b>SEWAGE</b>	Treatment plant for 71 persons
<b>ROLL REDUCTION TANKS</b>	2 off passive anti rolling tanks
<b>WATER BALLAST</b>	12 tanks, total capacity = 2274.9 cu mtrs.
<b>PROVISION ROOMS</b>	Galley stores for 69 persons / mess seating for 60 persons
<b>SAFE MANNING CERTIFICATE (MINIMUM)</b>	15

## B. PROPULSION

<b>ENGINES</b>	4 x 3937 KW main diesel generators – type: Rolls-Royce B32/40L9A
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<b>TOTAL PROPULSION</b>	<b>2 x 4200 KW electrical motors – type: Marelli Alconza QD710L3-8W</b>
<b>PROPELLERS</b>	<b>2 x X.P. propellers of low noise design. Diameter to be 4000 mm in fixed nozzle. Revolution to be from 0 to abt. 130 rpm.</b>
<b>AZIMUTH THRUSTER</b>	<b>1 x RETRACTABLE, 1500kW WITH COMPLETE ELECTRIC AC DRIVE</b>
<b>BOW THRUSTERS</b>	<b>1 x FIXED PITCH, 1200 kW WITH COMPLETE ELECTRIC AC DRIVE, SUPER-SILENT/DOUBLE TUNNEL TYPE.</b>
<b>STERN THRUSTERS</b>	<b>n/a</b>
<b>GENERATORS</b>	<b>690V 60 Hz 3PH, 230V 50 Hz 1PH</b>
<b>AUXILIARY GENERATOR</b>	<b>n/a</b>
<b>EMERGENCY GENERATOR</b>	<b>1 x 700 kW</b>
<b>ELECTRICAL DISTRIBUTION</b>	<b>690V 60 Hz 3PH, 230V 50 Hz 1PH + 24V DC</b>
<b>U.P.S.</b>	<b>100 kW UPS</b>
<b>BOLLARD PULL</b>	<b>107 Tons at 5 knots</b>

### **C. COMMUNICATION (Vessel)**

<b>COMMUNICATION SYSTEMS</b>	
<b>PORTABLE VHF</b>	<b>VHF RADIO, ENTEL HT640</b>
<b>MF/HF RADIO</b>	<b>FURUNO FS1570</b>
<b>INMARSAT A RECEIVERS &amp; NUMBER</b>	<b>n/a</b>
<b>INMARSAT B RECEIVERS &amp; NUMBER</b>	<b>T&amp;T Fleet 71 +1870764892428</b>
<b>INMARSAT C</b>	<b>2 x FURUNO SATCOM C</b>
<b>INMARSAT M</b>	<b>n/a</b>
<b>VSAT RECEIVERS &amp; NUMBER</b>	<b>2 x COMTECH CDM-570I</b>
<b>MARISAT RECEIVERS &amp; NUMBER</b>	<b>n/a</b>
<b>WEATHER FACSIMILE</b>	<b>FURUNO FAX-30</b>
<b>NAVTEX RECEIVER</b>	<b>FURUNO NX700B</b>
<b>SAFETY</b>	<b>GMDS 5</b>
<b>DATA TRANSFER</b>	<b>512 kbs</b>
<b>EMERGENCY RADIO BEACON (EPIRB)</b>	<b>2 x JOTRON 60S / GPS</b>
<b>SHIP/AIR CRAFT RADIO</b>	<b>2 x JOTRON TR-710, 3 x DITTEL FSG 5</b>
<b>RADAR TRANSPONDER</b>	<b>2 x JOTRON TRON SART 20</b>

### **D. NAVIGATION (Vessel)**

<b>NAVIGATION SYSTEMS</b>	<b>FURUNO GP-150 NAVIGATOR</b>
<b>RADARS</b>	<b>FURUNO FAR2837, 10CM ARPA-RADAR WITH DAYLIGHT MONITOR. ANTENNA WITH BUILT-IN TRANSMITTER. FURUNO FAR2837, 3CM ARPA-RADAR WITH DAYLIGHT MONITOR AND PERFORMANCE MONITOR. ANTENNA WITH BUILT-IN TRANSMITTER. SEA HAWK SHX X9</b>

<b>GYRO COMPASS</b>	<b>SG Brown Meridian Surveyor with:</b> <ul style="list-style-type: none"> <li>• 1 x SG Brown Interswitch</li> <li>• 2 x digital gyro repeaters for mounting in bridge wing consoles</li> <li>• 1 x Scan SR01 heading repeater</li> <li>• 1 x analogue gyro repeater for each steering gear room</li> <li>• 1 x class A magnetic compass</li> </ul> <b>Binnacle, reflector compass, azimuth device, straight vertical reflection tube and hood.</b>
<b>AUTOPILOT</b>	<b>KONGSBERG MARITIME cJOY ST</b>
<b>SPEED LOG</b>	<b>1 X 2-AXIS DOPPLER LOG, FURUNO DS 80</b>
<b>ECHO SOUNDER</b>	<b>FURUNO FE 700</b>
<b>ECDIS</b>	<b>TECDIS TECKO</b>
<b>STEERING SYSTEM (AUTOPILOT)</b>	<b>KONGSBERG MARITIME cJOY ST</b>
<b>TRACKING SYSTEM</b>	<b>ORCA,</b>
<b>GPS</b>	<b>2 X FURUNO GPS NAVIGATOR GP-150</b>
<b>MAGNETIC COMPASS</b>	<b>BINNACLE BN 35 PL</b>
<b>WIND INDICATOR</b>	<b>KONGSBERG SEATEX HMS-100</b>
<b>AIS</b>	<b>FURUNO FA-150</b>
<b>VOYAGE RECORDER</b>	<b>FURUNO VR-3016</b>

## **E. SAFETY**

<b>SAFETY EQUIPMENT</b>	
<b>MOB BOAT</b>	<b>NORSAFE MAGNUM 750</b>
<b>LIFEBOAT</b>	<b>2 X SCHATT-HARDING KISS1000C. CAP. 90 PERS. EACH</b>
<b>EPIRB</b>	<b>2 X JOTRON 60S / GPS</b>
<b>LIFE RAFT</b>	<b>6 X 25 PERSONS + 1 X 6 PERSONS</b>
<b>SURVIVAL SUITS</b>	<b>73 VIKING PS2004</b>
<b>LIVE VESTS</b>	<b>73 VIKING PVQ500 + 74 UNITOR SeaGuard 2010</b>
<b>WORK VESTS</b>	<b>CREWSAVER 275N</b>
<b>LIFE BUOYS</b>	<b>20</b>
<b>FRC</b>	<b>NORSAFE MAGNUM 750</b>
<b>SEISMIC WORKBOAT</b>	<b>See <u>WORKBOAT</u></b>

## **F. FIREFIGHTING EQUIPMENT**

<b>FIREFIGHTING EQUIPMENT</b>	
<b>ENGINE ROOM</b>	<b>2 X FOAM EXT. + FLEXI FOG / HEIEN LARSENEN MAIN SYSTEM</b>
<b>COMPRESSOR ROOM</b>	<b>2 x FOAM EXT. + MAIN FIRE FIGHTING SYSTEM</b>
<b>INSTRUMENT ROOM</b>	<b>2 X 5 kg CO2 Extinguishers + “ “</b>
<b>GUN SHACK</b>	<b>2 x DRY POWDER Extinguishers ON GUN DECK + “ “</b>
<b>HAZCHEM STORAGE</b>	<b>MAIN FIRE FIGHTING SYSTEM (FFS)</b>
<b>GALLEY</b>	<b>CO2 Extinguishers + Dry Powder</b>

ACCOMMODATION	2 X CO2 + 20 X WATER PORTABLE EXT. + MAIN FFS
TAPE STORE / RIGGING ROOM	1 CO2 + MAIN FFS
STREAMER AREA AND CABLE REPAIR ROOM	3 D CLASS Extinguishers + MAIN FFS
PAINT STORE	CO2 Extinguisher
INCINERATOR	CO2 Extinguisher
MAIN FOAM PUMP, AFFF FOAM MIXTURE	ALL WEIER / 90m 3 per hour
MAIN FIRE PUMP TYPE/FLOW	ALL WEIER / 90m 3 per hour x 2
EMERGENCY FIRE PUMP TYPE/FLOW	ALL WEIER / 47m 3 per hour
FIRE DETECTION MONITORING SYSTEM	ELTEK
FIRE BLANKETS	
HELIDECK FIRE PUMPS	MAIN FIRE PUMP

## G. ACCOMMODATION

ARRANGEMENT	69 PERSONS + HOSPITAL
CABIN TYPES	SINGLE
TOTAL	69
CONFERENCE AND TRAINING ROOM	60 SEAT AUDITORIUM + 12 SEAT TELECONFERENCE ROOM
SAUNA AND FITNESS ROOM	2 SAUNA (male / female) EXTENSIVE GYMNASIUM

## H. HELIDECK

EQUIPMENT & CERTIFICATION	
HELICOPTER DECK RATING	12.8 TON
FIRE FIGHTING	FOAM MONITORS X 2
NON DIRECTIONAL BEACON	410 kHz Helicopter Beacon
SHIP/AIR COMMUNICATION	2 JOTRON TR 710
MOTION WEATHER INFO	KONSBERG HMS-100

## I. SEISMIC COMPRESSORS

COMPRESSORS	3 x LMF 62s/ 138-207-E60
TOTAL AIR CAPACITY	1 SCFM ≈ 1,7 Nm <sup>3</sup> /H
NOMINAL SPARE AIR CAPACITY	62m <sup>3</sup>
OPERATING AIR CAPACITY	138bar= 2000psig, or 207 bar=3000psig

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## 2. MECHANICS

### A. SOURCES

*For Compressors details, please refer to Maritime section (1.1).*

NUMBER OF WINCHES	8 ea gun winches
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### B. HYDRAULICS

BRAND OF PUMPS	Parker
NUMBER OF PUMPS	2 x Variable axial piston pumps: 270cm <sup>3</sup> . 1 x Gear pump: 50 cm <sup>3</sup> . 1 x screw pump for flushing.
NOMINAL PRESSURE	250 bar

### C. TOWING EQUIPMENT

TOW POINTS	12 towing points + 2 lead-in winches
STREAMER WINCHES	12
STORAGE WINCHES	12
WIDE-TOW WINCHES	2
WIDE-TOW SENSORS (LOAD CELLS)	2
STREAMER WINCHES SENSORS	2
VANE CAPACITY	12 streamers x 100m separation.