



Marine Arctic Geological Expedition

RV "Geofizik"

### General Information

Flag	Russian Federation
Owner	JSC "MAGE"
Year of Building	1983
Place of Building	Khabarovsk
Reequipped	2004
Register Class	KM * L 2[I]
Type	Research
Call Sign	UAMO
MMSI Code	273 453 700
IMO Number	8138798
Length / Beam / Draft	55.6/ 9.30 / 4.5 m
Deadweight	366 t
Register tonnage: gross weight / net weight	742 / 222 t
Total Displacement	1157 t
Cruising Range	8000 miles
Speed eco / max	10 / 12 knots
Endurance	32 days
Number of Crew Members / Expedition Specialists	25/15 persons
Fuel Capacity	135 t
Capacity of Lubricating Oil	6 cu m
Fresh Water Capacity	45 t
Service Water Capacity	65 t
Fuel Consumption	4.5 t/day

### Main and Auxiliary Machines

Main Engines	1 x 6 NVD 48 A-2U 736 kW, Germany
Auxiliary Diesel – Generators	3 diesel-generators 3 x 150 kW, USSR
Generators for Air Compressors	n/a
Emergency Diesel – Generator	1 x K 268M 50 Kw, USSR
Shaft Generator	n/a
Thruster	PU – 10
Propulsion	CPP 3 blades
Steering Gear	RO – 9
Distiller	D 3U capacity of 6 t/day
Fuel Separator	1 separator capacity of 1.5 cu m/h
Lubricating Oil Separator	1 separator capacity of 1.5 cu m/h
Deck Erecting Cranes	2 stern cranes, SWL of 0.9 t

### Marine Pollution Prevention Equipment

Bilge Water Separator	SKIT-S Germany
Incinerator	n/a
Sewage Treatment Plant	n/a
Bilge Water Tanks	1 x 15.4 cu m; 2 x 23.7 cu m
Cuttings Tanks	1 x 2.54 cu m 1 x 0.17 cu m
Sewage Collecting Tanks	1 x 10.9 cu m

### Navigation and Communication

Radar	FURUNO 2115
	Maximum range - 72 miles
Echo Sounder	NEL M3B
	Depth measurement range - 0,5-500 m
Autopilot	AIST
Gyro-Compass	"Geus"
Log	IEL-2
GPS	SUMYUNG SPR 1400
GMDSS	A1, A2, A3
Weather Facsimile Receiver	NAVTEX FURUNO NX 500
INMARSAT C	STANDART RADIO STR 2000
Intercom	RYABINA
Satellite System	Nera "Mini-M"
Fax (Inmarsat mini M)	+870 762 830 647
Phone (Inmarsat mini M)	+870 762 830 645
Telex (Inmarsat C)	427 300 988

### Video Monitoring

High Mast Camera	n/a
Air Gun Deck Camera	n/a
Seismic Winch Room Camera	n/a
Engine Room Camera	n/a

### Damage Control Equipment

Fire-Smothering System	Halon Fire Extinguishing (Halon 1301)
Fixed Foam-Smothering System	n/a
Fire Pumps	2 pumps, capacity of 26 m <sup>3</sup> /h
Self-Contained Smoke Detectors	n/a
Fire-Resistant Sets with self-contained breathing apparatus	3 sets with self-contained breathing apparatus ACB - 2
Fixed Drainage Pumps	1 pump, capacity of 40 m <sup>3</sup> /h 1 pump, capacity of 3 m <sup>3</sup> /h

### Life Saving Equipment

Rescue Boat	1 boat capacity of 23 persons
Fast Rescue Boats (FRB)	n/a
Life Rafts	12 pieces capacity of 10 persons
Immersion Suits	44 pieces
Life Vests	44 pieces
Ring Life Buoys	8 pieces

### Process Equipment

Electrically Driven High-Pressure Air Compressors	2 compressors EK-7.5; pressure 3000 psi; FAD of 140 m <sup>3</sup> /h (82 cfm)
High-Pressure Air Diesel – Compressors	1 compressor DK – 2; pressure 3000 psi; FAD of 110 m <sup>3</sup> /h (65 cfm)
Hydraulic Pumps	Typ/Nr TGD 024/4 – 45/630 capacity of 60 l/min

## Geological – Geophysical Equipment and Instruments

<b>Seismic Acoustics System:</b>	
Workstation	4-channel GeoPro Side Scan Processor
Side-Scan Sonar	Two-frequency SS942
Data Processing and Control System	RadExPro
Digital Seismic Telemetry System for Work in Water Areas	Xzone Bottom Fish, up to 960 channels
Seismic Streamer	Xzone Bottom Fish
Length of Streamer	150 m
No. of Channels	24
Air Gun	Mini GI, volume of 60 cu inches (G30/I30)
Gun Control System	Real Time Systems HotShot
<b>Refraction Shooting:</b>	
Data Processing and Control System	RadExPro+ 3.75
Automatic Synchronizer	MGK - 904
Automatic Bottom Seismic System	ADSS-5
4-Channel Control Panel of Air Gun Shot	RGC-4
Downhole Air-Gun Elastic Wave Source	Puls-6-100, Puls-6-30
<b>Geophysical Recording System:</b>	
Gravimeter	"Chekan"
Magnetometer	"SeaSpy"
<b>Navigation Equipment:</b>	
Software	Trimble DSM-132, Leica MK - 12
Echo Sounders	NEL M3A (Depth measurement range - 0-200 m) NEL M3B (Depth measurement range - 0-500 m) JMC F-840 (Depth measurement range up to 1600 m)
<b>Bottom Sampling Devices:</b>	
	Core samplers, scoops, dredges