

M/V "OSMAN GAZI" – TECHNICAL PASSPORT

PRINCIPAL PARTICULARS

NAME	OSMAN GAZI	OWNER	MEDTRANS NAVIGATION
OFFICIAL №	5938	CLASS	+100 A5 E,G / MC E AUT
IMO No.	9132519	CLASS No.	989607
PORT OF REGISTRY	VALLETTA	KEEL LAID	23.05.1997
CALL SIGN	9HUD5	LAUNCHED	
BUILT AT	SHIPYARD VARNA	DELIVERED	25.05.1998
BUILDERS SER.No	714	KIND OF SHIP	BULK CARRIER

PRINCIPAL DIMENSIONS

LOA : 142.14 m	GT : 10220
LBP : 133.44 m	NT : 5123
BM : 22.26 m	SUEZ GRT: 10315.55
DM : 11.13 m	N.T. PANAMA: 8616
SUMMER DRAFT SW: 8.214 m	N.T.SUEZ:
SUMMER DWT: 13898 t	DISPLACEMENT TOTAL: 18871 SUMMER
WINTER DRAFT SW: 8.043 m	LIGHT WEIGHT: 4973
WINTER DWT: 13455 t	DRAFT IN BALLAST: 4.62 m
TROPICAL DRAFT SW: 8.385 m	HEIGHT FROM KEEL TO TOP: 40.52 m
TROPICAL DWT: 14344 t	AIR DRAFT IN FULL BALLAST(10%): 36.0 m
FREEBOARD SUMMER: 2936 mm	
FREEBOARD WINTER: 3107 mm	
FREEBOARD TROPICAL: 2765 mm	

CREW COMPLETEMET

MASTER : 1	DECK OFFICERS:2	CHIEF ENGINEER: 1	ENGINEER OFFICERS: 2
CHIEF OFFICER: 1	RADIO OFFICER: 0	SECOND ENGINEER: 1	DECK RATINGS : 5 ENGINE RATINGS : 3

CAPACITIES

SERVICE SPEED:	13.0 KNOTS	ENDURANCE:	10 000 MILES
IFO CONSUMPTION:	2.2 - 3.4* T/DAY PORT		
IFO CONSUMPTION:	14.4 - 16.8 T/DAY IFO AT SEA		

* In port with ship's crane loading/discharging.

BRIDGE OUTFIT

COMPONENTS	TYPE	MANUFACTURER	SER №
RADAR № 1	MARINE RADAR/ARPA FURUNO, S-Band, 3050±30MHz FAR-2137S(-BB),	FURUNO	PU Type RPU-013 S/N 4318/6570
RADAR № 2	MARINE RADAR/ARPA	JRC	LW 59152

	JRC, X-Band, 9410+30MHz JMA 9922-6-XA		
ECHOSOUNDER	SPERRY ES 5000-03	GERMANY	258
AUTOPILOT	SPERRY ADG 3000 VT	SPERRY MARINE INC.	
LOG	SPERRY SRD 331	SPERRY MARINE INC.	1134
GPS No1	GP 500 MARK 2 - FURUNO	JAPAN - FURUNO EL.	
GPS No2	SAAB R4	CANADA	109440
GPS No3	JRC-NWZ 4570	JAPAN	KE-16758
GYROCOMPASS	SPERRY MK 37 VT	CHARLOTTESVILLE, VIRGINIA	7340476-11
MAGNETIC COMPASS	CASSENS & PLATH	GERMANY	AR-79193
VHF № 1 & № 2	SAILOR COMPACT VHF RT 2047/D	S.P. RADIO, DENMARK	585146 582852
VHF DSC № 1 & № 2	SAILOR COMPACT VHF DSC RM 2042	S.P. RADIO, DENMARK	598679 592587
INMARSAT	NERA - F77	CANADA	02-04080099
SAT C	PCU 9000	SKANTI - HOLLAND	602017
SAT C	PCU 9000	SKANTI - HOLLAND	568322
SAT C PRINTERS	OKI MICROLINE 280 - GE 5256 N	U.K.	7AAP3287436K 7AAP3287435K

ANCHOR & MOORING OUTFIT

	TYPE	MANUFACTURER	SER. №
FORE ANCHOR & MOORING WINCHES	KB125KP60U2: 125 kN; 0.189 m/sec CHAIN DIA: 60 mm	VARNA SHIPYARD	11416/7
EL.MOTORS	MD4SA45; 11/45/25Kw	ELMOR, POLAND	
AFT MOORING WINCHES	KB125KP46U2 26 kN CHAIN DIA: 46 mm	VARNA SHIPYARD	11415/4
EL.MOTORS	MD3SA 9.2/40/20; 2.6 / 19 / 38 Kw	ELMOR, POLAND	
ANCHORS	HALL; 4590 kg HALL; 4590 kg	S.C. ELNAV S.A. GALATZ ROMANIA	35312BU C 35313BU C
CHAIN	Ø 58mm L=554.4 m ; 22 SHACKLES L=25.2m / each shackle /	KENTERFABRIK MESTER GmbH GERMANY	
WINCH FOR OUTSIDE LADDER	P3CE-5R-2DS-0-B	"MAYAK KM" LTD N.PAZAR, BULGARIA	3 4

CARGO OUTFIT

	TYPE	MANUFACTURER	SERIAL №
CARGO CRANES	TL 12.520-1; SWL=12.5t Working area - 3,4 - 24 m	MacGREGOR - HÄGGLUNDS	62503756/57 62503758/59
CARGO CRANES - EL.MOTORS	M2CA 280 SMA 4 V1 90 kW, 1485 rpm	ABB MOTORS	3352667 3352668 3340844
GRABS	MZGL 400-6-B; Cap. - 4.0m ³ Load weight-6500kg.; Tare-3700kg	SMAG GmbH	3713/4/5/6
EL.MOTORS FOR GRABS	160L - 4; 18.5 kW, 1420 rpm		3558164/5/6/7

HATCH COVERS FOR CARGO HOLDS

	TYPE	MANUFACTURER	SER №
HATCH COVERS	FOLDING	JSCo & VARNA SHIPYARD	3043
GEAR PUMPS			

ASTE GIUDIZIARIE® STEERING GEAR

STEERING GEAR	625 kNm , Mineral Oil H68 TIME: 35 ⁰ PS to -35 ⁰ SB - 28 sec	MS 320-13-2/P1 219714	HYDROSTER GDANSK POLAND
COMPONENTS	TYPE	MANUFACTURER	SER №
GEAR PUMPS	PZ2 - K 63P Q=63 l/m , P= 160 bar	Wytownia Pomp Hydraulicznych S.A.	37378 / 0003 37378 / 0004
EL.MOTORS			
HYDRAULIC CILINDERS	SD 1 G O 280 / 180 20 bar	ZHO "HYDROSTER" POLAND	4697757 4697758
RUDDER BLADE	LECO KO BG RADOMIR	SEMIBALAN-CED ON HORN RUDDER	VARNA SHIPYARD
RUDDER STOCK AND PINTLE	MATERIAL BEARING BUSHES "ORKOT TLM-MARINE "		VARNA SHIPYARD

ASTE GIUDIZIARIE® LIFE SAVING EQUIPMENT

	TYPE	CAPACITY	DIMENSIONS	MANUFACTURER
FREE -FALL	FFB 7.40/34	32 PERSONS	7.40x2.65x1.56	STOCZNIA"USTKA" POLAND
LIFEBOAT MOTOR	SABB L3.139LB	21.6 kW	6 Knots	Ser.№ 2842
LAUNCHING LB SYSTEM	HUZ 7.4-35 ZH-100/7.5- 12.5-200/PB		GA=6750 kg.	STOCZNIA"USTKA" POLAND Ser.№ 2841
RESCUE BOAT MOTOR	YAMAHA	6 PERSONS 5 kW	4.40x1.75x0.75 6 Knots	STOCZNIA"USTKA" POLAND Ser.№ 2884 1998
DERRIC CRANE FOR RESCUE BOAT AND 1.3t CARGO HANDLING	HL13	MAX3.25T	LOAD RADIUS 3.65 m	STOCZNIA"USTKA" POLAND S.№ 2884 1996
DERRIC FOR LIFE RAFTS	KC 15 CC	15 kN 1.5 T	LOAD RADIUS 3.65 m	VARNA SHIPYARD S.№ 11456 1998
LIFERAFTS	LR 86-2 pcs LR 86L-2pcs RFD-6 -1 pc	16 PERSONS 16 PERSONS 6 PERSONS		DEUTSCHE SCHLA- UCHBOOTFABRIK SURVIVA-IRELAND

ASTE GIUDIZIARIE® AUTOMATICS

REMOTE CONTROL SYSTEM MAIN ENGINE : AUTOCHIEF 4 BUILT: 1998	MANUFACTURER: KONGSBERG NORCONTROL AUTOMATION A/S	
	COMPONENTS	
	ENGINE TELEGRAPH	
	BRIDGE AND CONTROL ROOM UNIT	
	SAFETY SYSTEM"SSU-8810"	
CENTRALIZED ALARM AND MONITORING SYSTEM TYPE: AMS-S	COMPONENTS	
	OPERATORS STATION	SIEMENS-COROS OP35 / OP5 / OP25
	PRINTER	SIEMENS
CONTROL OF EL.GENERA- TING PLANT	TYPE: PARALEL MANUFACTURER: SHIPYARD VARNA	
WATER & OIL TEMPERATURE CONTROLLERS	TYPE : ER 2295 GED VALVES - TYPE: M3MF - 4 pcs. MANUFACTURER: ODIN CONTROL SYSTEM DENMARK	
AUTOMATIC CONTROL OF STAND-BY PUMPS AND AIR COMPRESSORS	TYPE: RCU-P+C MANUFACTURER: SHIPYARD VARNA	
CONTROL OF PROVISIONAL REFRIGERATOR PLANT	TYPE: RCU-R BUILT: SHIPYARD VARNA	
FRESH WATER SALINITY METER		

CARGO SPACES, BALLAST WATER, FUEL OIL, LUB OIL, FRESH WATER TANKS

TANK	CAPACITY M ³	TANK	CAPACITY M ³
CARGO SPACES		HEAVY FUEL OIL	
№1 HOLD&HATCH	3987.0	№5 DB STORAGE TANK PS/S	123.2
№2 HOLD&HATCH	4641.0	№2 STORAGE DEEPTANK PS/S	581.2
№3 HOLD&HATCH	4659.0	SETTLING TANK SB	27.0
№4 HOLD&HATCH	4568.0	DAILY SERVICE TANK SB	19.3
		SETTLING TANK SB	27.0
WATER BALLAST		HFO OVERFLOW TANK SB	5.3
FORPEAK	434.6		
DEEPTANK №1 PS	157.6		
DEEPTANK №1 SB	168.4	DIESEL FUEL OIL	
DBTANK №1 PS/S	491.0	№6 DB STORAGE TANK SB	47.5
DBTANK №2 PS/S	833.5	DAILY SERVICE TANK SB	5.3
DBTANK №3 PS/S	861.6	SETTLING TANK SB	6.3
DBTANK №4 PS/S	794.7	DFO OVERFLOW TANK SB	7.7
TOP SIDE TANK №1 PS/S	235.9		
TOP SIDE TANK №2 PS/S	342.6	LUBRICATING OIL	
TOP SIDE TANK №3 PS/S	342.6	ME DRAIN CIRC.OIL TANK	11.2
TOP SIDE TANK №4 PS/S	330.9	ME WASTE LO TANK	13.2
AFFTERPEAK	74.5	ME LO STORAGE TANK PS	22.0
		№1 ME CYL.LO STORAGE TANK PS	10.3
FRESH WATER		№1 ME CYL.LO STORAGE TANK PS	9.6
BOILER WATER TANK	32.9	ME STUFFING BOXES CIRC OIL TANK PS	1.2
WASHING WATER TANK №23 PS	101.5	ME STUFFING BOXES DRAIN OIL TANK PS	2.6
WASHING WATER TANK №24 SB	75.4	DG LO STORAGE TANK PS	4.0
DRINKING WATER TANK №25	39.4	DG CIRCULATING LO TANK PS	2.2
		DG WASTE LO TANK PS	2.7

	DG SEPARATING LO TANK PS	3.5
	OTHERS	
	BILGE WATER TANK	34.7
	RESERVE SEWAGE TANK PS	9.7

MAIN ENGINE

TYPE : MAN - B&W 7S 35 MC	MANUFACTURER: BRYANSK RUSSIA
SERIAL No.: 9702 BUILT: 1997	CYL NO x BORE x STROKE: 7x 350 x 1400
POWER: 4900 kW RATED SPEED: 170 min ⁻¹	DISPLACEMENT: 343 dm ³
MEAN EFF.PRESSURE: 18.22bar	MAX.PRESSURE: 145 bar
TYPE OF FUEL: DO; IFO 380 CST	
TURBOCHARGER: ABB SWITZERLAND VTR 454-32 .No HT414640	GOVERNOR: PGA Ser No 2607498 WOODWARD GOVERNOR NEDERLAND B.V.
AUX BLOWER: TYPE: M2AAM 160LB-2 RPM: 2915 SER.No: 9680258020001/2; BUILT: 1997 MANUFACTURER: ABB MOTORS	TURNING MOTOR: CAPACITY - 22Kw, VOLTAGE- 3X380 v: 50Hz MANUFACTURER: YAROSLAVL - RUSSIA BUILT: 1995
AUTOCHIEF 4 BUILT: 1998 MANUFACTURER: KONGSBERG NORCONTROL AUTOMATION A/S COMPONENTS: BRIDGE AND CONTROL ROOM UNIT SAFETY SYSTEM "SSU-8810" ENGINE TELEGRAPH	
OIL MIST DETECTOR	MANUFACTURER: SCHALLER-AUTOMATION GERMANY TYPE: VISATRON VN 215;/87 SER.No 10024
LUBRICATOR	MANUFACTURER: HANS JENSEN LUBRICATORS A/S DENMARK TYPE: 7

MAIN PROPULSION SHAFTING AND PROPELLER

INTERMEDIATE SHAFT: LECO CO RADOMIR	STERN TUBE	BUILT:
INTERMEDIATE SHAFT RADIAL BEARING: BUILT: LIPS	LIPS	
PROPELLER SHAFT: LECO CO RADOMIR	BEARING:	SEALS:
PROPELLER Ser.No 4848 BUILT: ABB ZAMECH Ltd ELBLAG POLAND D = 4300 mm WEIGHT: 5899kg PITCH HO.7 = 2921 mm BLADES - 4 DIRECTION OF ROTATION - RIGHT ICE CLASS : E	FOR: SERIAL No.: WO5157 R0009 L344. D400 AFT: SERIAL No.: WO5157 R0008 L820 D500	AFT: TYPE: 420 MK II SERIAL No.: WO5157 FOR: TYPE: 420 MK II SERIAL No.: WO5157

SOURCES OF ELECTRIC POWER

MAIN DIESEL GENERATORS - 3 pcs

TYPE : 4S20H	MANUFACTURER :	GENERATOR TYPE
SER.No 5105.5106.5107	H.CEGIELSKI-POZNAN S.A. POLAND	GDB128M/04
BUILT 1997	CYL.No x CYL DIA x STROKE	OUTPUT - 560 Kva

RAT.POWER-468 kW	4 x 200 mm x 250 mm	SPEED - 750 MIN ⁻¹
RAT.SPEED- 750 min ⁻¹	DISPLACEMENT-	VOLTAGE - 400 V
M.EF.PRESSURE-14.2 bar	TURBOCHARGER TYPE: RR151 SER.№ HT 442581/2/3	COSφ = 0.8
MAX.PRESSURE- 130 bar	ABB	FREQUENCY - 50 Hz
TYPE OF FUEL-HFO380	GOVERNOR : UG 8 WOODWARD	SER.№13641201/2/3

EMERGENCY DIESEL GENERATOR

MANUFACTURER : CUMMINS ENGINE CO.			
BUILT: 1996 kVA/VOLTAGE : 135 kVA / 380 V			
ENGINE		GENERATOR	
TYPE: 6GT 8.3	SER.№ 21236063	TYPE: UC. M 274F1	SER.№ C0 90140-L
MANUFACTURER: CUMMINS ENGINE CO.		MANUFACTURER: NEWAGE INTERNATIONAL LTD	
POWER: 135kW	SPEED: 1500 min ⁻¹	OUTPUT: 126 kVA	VOLTAGE: 400 V
STROKE: 4 CYL 6		FREQ: 50Hz	SPEED: 1500 min ⁻¹

AUXILIARY & EXHAUST GAS BOILERS

UNIT	MANUFATURER		
AUXILIARY BOILER	TPK-KOTLOGRADNJA CROATIA	TYPE	K/KD
		SERIAL №	20349
		BUILT	1997
		MAX.WORK.PRESSURE	10
		HEATING SURFACES	30+218 m ²
BURNER	SAACKE -GERMANY	TYPE	SKVJ-15
		SERIAL №	1-2008-298200

FUEL OIL SYSTEMS

		MANUFACTURER	SERIAL №
FO / DO SEPARATORS TYPE: MFPX 307 TEF-21-50	SEPARATOR №1	ALFA LAVAL S.A.	4096028
	EL.MOTOR № 1	ABB MOTORES M2AA132SB-2	72713-27/014
	SEPARATOR № 2	ALFA LAVAL S.A.	4096029
	EL.MOTOR № 2	ABB MOTORES M2AA132SB-2	73513-27/002
COMPONENTS	TYPE	MANUFACTURER	SERIAL №
FO SUPPLY PUMPS FOR ME	025N NTBP	IMO AB	460558/9
EL.MOTORS	ABB MT 80B 1,1 Kw ; 2850 rpm	ABB	6969 906/7
FO CIRCULATION PUMPS	ACE 038K NTBP	IMO AB	460488/9
EL.MOTORS	ABB MT 90L	ABB	6969 908/9

	202 Kw ; 2850 rpm		
FO SUPPLY PUMPS FOR AUXILIARY BOILER	GR4-160/14A	GRUNDFOS PUMPRNFABRIC	2429370
EL.MOTORS	AM 71 NY-4 0.37 KW; 1370 rpm	AEG	
FO / DO TRANSFER PUMPS	ACG 070 N5 IVBP Q=25m ³ /h ;P=4.0bar	IMO AB	466754-755
EL.MOTORS	WU-DA132MR - D 7.5 Kw ; 1450 rpm	BROOK HANSEN	1.1191
VISKOZIMETER	A/VCU-160R	ALFA LAVAL S.A.	
ME AUTOMATIC FUEL FILTER	6.24.4. DN 32	BOLL&KIRCH FILTERBAU GMBH	346912 POS. 4
ME FO PREHEATER	AL/HEATPAC CBM 26-60	ALFA LAVAL S.A.	1058 5369 1058 5387
FO SEP.PREHEATERS		ALFA LAVAL S.A	
FUEL OIL TRANSFER PUMP FOR INCENERATOR & EDG			
EL.MOTOR			

LUBRICATING OIL SYSTEM

LO SEPARATORS: TYPE: MAPX - 207S - 24	SEPARATOR №1	ALFA LAVAL S.A	SERIAL № 4096030
	EL.MOTOR № 1	ABB MOTORES M2AA112M-4	72711.22/08
	SEPARATOR № 2	ALFA LAVAL S.A	4096031
	EL.MOTOR № 2	ABB MOTORES M2AA112M-4	72711.22/16
COMPONENTS	TYPE	MANUFACTURER	SER.№
LO SCREW PUMPS FOR ME	ACF 125L4 IRBO	IMO SCREW PUMP	462330/1
EL.MOTORS	UD180LD Q=119.3 m ³ /h ;P=4.0 bar	BROOK HANSEN	A467376/8
LO SCREW PUMPS FOR CAMSHAFT ME			
EL.MOTORS			
EXOST GAS VALVES BOOSTER PUMPS ME	ACE 032L1 IVBO Q=1.14 m ³ /h ;P=4.0 bar	IMO SCREW PUMP	ACE 02311
EL.MOTOR	UD80AD 0.55 Kw ; 1450 rpm	BROOK HANSEN	T712377
LO TRANSVERING PUMP FOR STUFFING BOX ME			
EL.MOTOR			
LO TRANSVERING PUMP	ACE 032L1 IVBO Q=1.14m ³ /h ;P=4.0 bar	IMO SCREW PUMP.	465656-960
EL.MOTORS	UD 80AD 0.55Kw ; 1450 rpm	BROOK HANSEN	1.1191
PRELUB PUMPS FOR DE	ACE 038-2NIC2 Q=49 m ³ /h ;P=7 bar	IMO SCREW PUMP.	2397979/8/7
EL.MOTORS	MSSKG 100 L 4A 1.5 Kw ; 1430 rpm	TAMEL	729238/9/7
LO ME AUTOMATIC FILTER	LGMC280 CN 20/4 AO5	ALFA LAVAL S.A	3650290 POS:5
LO SEP. PREHEATERS		ALFA LAVAL S.A	

WATER COOLING SYSTEMS

PUMPS

PUMPS	TYPE	MANUFACTURER	SER.№
ME SEA WATER PUMPS	CM 150/33; H=25m Q=400 m ³ /h	BOMBAS AZCUE S.A.	202.176/1
EL.MOTORS	MBT 225 S-4 37 Kw : 1482 rpm	ALFA LAVAL S.A.	63922P1415 1/2
DE SEA WATER PUMPS			
EL.MOTORS			
ME HTC	VM 80.16R; H=30m Q=55m ³ /h	BOMBAS AZCUE .S.A.	202.176/7
EL.MOTORS	MBT 160 M-4MBT 200L-4 8 Kw : 2908 rpm	ABB MOTORS	63920P1-429 1/2
LTC	CM 150/33 H=25 m Q=340 m ³ /h	BOMBAS AZCUE .S.A.	202.173/4
EL.MOTOR	M2AAM 132 SB-2 2.2 Kw : 1430 rpm	ABB MOTORS	63913P2- 314/001/2

HEAT EXCHANGERS

EXCHANGER	TYPE	MANUFACTURER	SER.№
ME FRESH WATER COOLERS FOR LTC	1M15-BFM8 V-130.2L; P _{MAX} =5 bar	ALFA LAVAL	30102- 18262/3
ME LUB OIL COOLERS	2M15-BFM8 V-182.5L; P _{MAX} =6 bar	ALFA LAVAL	30102- 18264
ME FRESH WATER COOLERS FOR HTC	1M10-MFM V-13.2L; P _{MAX} =5 bar	ALFA LAVAL	30102- 18265
ME FRESH WATER HEATER	TKH-1.0 1.0m ³ 7.0 BAR	KMM-68 LTD	454
DG FRESH WATER HEATER	TKH-1.0 1.0m ³ 7.0 BAR	KMM-68 LTD	452/453
CONTAMINATED CONDENSATE COOLER	KB-4.5 4.5m ³ 7.0 BAR	KMM-68 LTD	210

EVAPORATOR

	TYPE	MANUFACTURER	SER.№
EVAPORATOR	JWP-26-C80 CAPACITY :15m ³ /24h	ALFA LAVAL DESALT A/S DENMARK	N - 008014
EV.FRESH WATER PUMP	PWE 1512 P _{MAX} =1.5 bar	ALFA LAVAL DESALT A/S DENMARK	681065
EL.MOTOR	MT 71B -2 2820 rpm . 0.55 KW	ALFA LAVAL DESALT A/S DENMARK	436527
SW EV.EJECTOR PUMP	CNL-65-65/200 P _{MAX} =10 bar	ALFA LAVAL DESALT A/S DENMARK	1749-2
EL.MOTOR	M2AA 132SB - 2 2900 rpm . 8 Kw	ALFA LAVAL DESALT A/S DENMARK	471575

COMPRESSED AIR SYSTEM

COMPONENTS	TYPE	MANUFACTURER	SER.№
AIR COMPRESSORS	WP 200L ; P=30 bar Q = 110 m ³ / h	J.P. SAUER SOHN MASCHINENBAU	83728/9
EL.MOTORS	WUDF 225M4	BROOK CROMPTON	GX 09979/80

	30 Kw , 980rpm		
STARTING AIR RECEIVER FOR ME	471-1K-010-10 CAPACITY 2000l	KMM-68 LTD	477.8
STARTING AIR RECEIVER FOR AUX. DE	CAPACITY -400l	KMM-68 LTD	476

BOILERS STEAM, CONDENSATE AND FEED WATER SYSTEM

COMPONENTS	TYPE	MANUFACTURER	SERIAL №
BOILER FEED WATER PUMPS	BR-41/10 - RR H=85 m Q=7 m ³ /h	BOMBAS AZCUE .S.A.	214.543
EL.MOTOR	M2AAM 132 S - 4 6 Kw ; 1440 rpm	ABB MOTORS	
HOT-WELL FEED WATER PUMP	CP-25/160 H=31/13m; Q=4-8m ³ /h	BOMBAS AZCUE .S.A.	202.190/1
EL.MOTOR	MU 08B-2 1.1 Kw ; 2852 rpm	ABB MOTORS	
CONDENSER FOR DIRTY CONDENSE	KB-4.5 4.5m ³ 7.0 BAR	KMM-68 LTD	210

ENGINE ROOM VENTILATION

COMPONENTS	TYPE	MANUFACTURER	SER.№
DELIVERY FAN			
SUCTION FAN			
DELIVERY FAN			
DELIVERY FAN			

BALLAST AND BILGE SYSTEMS

COMPONENTS	TYPE	MANUFACTURER	SER.№
BALLAST PUMPS	CM - EP 150 / 40 H=40 m Q=400 m ³ /h	BOMBAS AZCUE .S.A.	207.182 207.183
EL.MOTORS	M2CA 280 SM4/6 - 4 V1 77Kw , 1492 rpm	ABB MOTORS	3311626/6
DRAINING PUMPS			
EL.MOTORS			
BILGE SEPARATOR	HELI CEP 5000 Q=5 m ³ ; WP=0.5bar	WORD WATER SYSTEMS U.S.A.	803.001
BILGE ALARM	OCD-2M	WORD WATER SYSTEMS U.S.A.	
BILGE WATER PUMP	EL 236 Q=5 m ³ /h , P= 5 bar	BORNEMANN	73247
EL.MOTOR	SK 90L / 4 1.5 Kw , 1385 RPM	NORD	44511171
SLUDGE PUMP	EL 236 Q=5 m ³ /h , P= 5 bar	BORNEMANN	73247
EL.MOTOR	SK 90L / 4 1.5 Kw , 1385 RPM	NORD	44511171
PISTON DRAIN PUMP	ЭНП 25 / 2.5	А/О "СУДОТРЕЙД"	

EL.MOTOR	Q= 25 m ³ /h , P= 2.5 bar ANP 112M4 0M2 4.5kW , 1430 rpm	ABB MOTORS	672
EJECTOR	CAPACITY - 100 m ³ /h		
CHAIN LOCKER EJECTOR	CAPACITY - 50 m ³ /h		

FIRE EXTINGUISHING SYSTEMS

WATER FIRE EXTINGUISHING SYSTEM

COMPONENTS	TYPE	MANUFACTURER	SER.No
FIRE PUMPS	CM - EP 65 / 26 H=80 m Q=71 m ³ /h	BOMBAS AZCUE .S.A.	202185
EL.MOTORS	M2CA 280 SA - 2 V1 75kW , 2974 rpm	ABB MOTORS	
EMERGENCY FIRE PUMP	CM - EP 65 / 26 H=80 m Q=71 m ³ /h	BOMBAS AZCUE .S.A.	202184
EL.MOTOR	MBT 200 LA - 2 30Kw , 2940 rpm	ABB MOTORS	63920P143 0/1

FOAM & CO₂ EXINGUISHING SYSTEMS

ITEM	SYSTEM	MANUFACTURER
ENGINE ROOM FUEL OIL SEPARATORS CARGO HOLDS	MAIN CO ₂ CYLINDERS-30 pcs x45 kg CO ₂ PILOT SYL-S-2 pcs x 2 kg CO ₂	NOSKE-KAESER GmbH HAMBURG
EMERGENCY DG AND INSINERATOR ROOMS	CO ₂ LOCAL CYLINDER- 1pc x 45 kg	NOSKE-KAESER GmbH HAMBURG
PAINT STORE	CO ₂ LOCAL CYLINDER- 1 pc x 45 kg	NOSKE-KAESER GmbH HAMBURG
ME,DG SILENCERS AND AUX. BOILER ARRESTER	CO ₂ IN ENGINE ROOM CYLINDERS-4 pcs x 45 kg	NOSKE-KAESER GmbH HAMBURG
STATIONARY FOAM SYSTEM / near to Work shop /	TYPE : VPA - 136 l SER.No 101	KMM-68 SHOUMEN BULGARIA
FOAM SYSTEM FOR FUEL OIL SEPARATORS	TYPPE : VPA-45L SER.No 99	KMM-68 SHOUMEN BULGARIA
FIRE DETECT. SYSTEM	SAWICO C300	CONSILION MARINE AB

ACCOMODATION & SANITARY SYSTEMS

WATER SUPPLY SYSTEM

COMPONENTS	TYPE	MANUFACTURER	SER.No
HYDROPHORE PUMPS FOR WASHING WATER	BR 41 / 20 RR H=4/8 m,Q=65 / 18 m ³ /h	BOMBAS AZCUE .S.A.	214540/2
EL.MOTOR	M2AAM 100 LA - 4 2.2kW , 1430 rpm	ABB MOTORS	64011P2315/002/4
HYDROPHORE PUMPS FOR DRINKING WATER	BR 41 / 10 RR H=4/8 m,Q=65 / 18 m ³ /h	BOMBAS AZCUE .S.A.	214539/40
EL.MOTOR	M2AAM 100 LA - 4 2.2kW , 1430 rpm	ABB MOTORS	64011P2315/001 70911PO259/002
HOT WATER PUMPS	CP - 25 / 160 H=25 m , Q=2.5 m ³ /h	BOMBAS AZCUE .S.A.	202191 202178
EL.MOTOR	MU 80 B - 2	ABB MOTORS	

	1.1kW , 2880 rpm		
HYDROPHORE FOR DRINKING WATER	Capacity: 0.3 m ³ Working Pressure = 6.0 bar	KMM-68 SHOUMEN BULGARIA	233
HYDROPHORE FOR WASHING WATER	Capacity: 0.9 m ³ Working Pressure = 6.0 bar	KMM-68 SHOUMEN BULGARIA	234
STEAM ELECTRIC BOILER	320Π2.5E12/11; H.S.-2.5m ² Capacity – 320 l; Working Pressure – 8 bar /70 ⁰ C	KMM-68 SHOUMEN BULGARIA	90
MINERALYZER	M – 12 , Capacity – 320 l Working Pressure – 6.0 bar	KMM-68 SHOUMEN BULGARIA	227

SEWAGE & SANITARY DRAIN SYSTEM

COMPONENTS	TYPE	MANUFACTURER	SER.No
SEWAGE TREATM.PLANT	HL-CONT 1M3 COMPACT MINI	HAMMEN WESSERTECVHNIK	H8201
AUX. BLOWERS			
SEWAGE PUMP	MN 32 / 160 H=37 / 29 m , Q=12 / 27 m ³ /h	BOMBAS AZCUE .S.A.	202.192
EL.MOTOR	M2AAM M112 M – M2 4.0kW , 2890 rpm	ABB MOTORS	

AIR CONDITIONING COOLING PLANT

COMPONENTS	TYPE	MANUFACTURER	SER.No
COMPRESSORS	CMO 28 ; WP22bar; Ref. 22 Swept volume-233 m ³ /h	SABROE . AARHUS DENMARK	106.127
EL.MOTORS	BN7225M-BB51B-Z 52kW , 1480 rpm	SCHORCH	50020703 / 2 50020702 / 1
COOLING PUMPS			
EL.MOTORS			
AIR CONDITIONING UNITS	ZL / 129	WEGER . GERMANY	95-01-302
FANS	CAPACITY – 11000 m ³ /h	WEGER . GERMANY	01
EL.MOTORS	TE160M 15kW , 3215 rpm	NF MOTORS	A137624
AIR CONDITIONING UNITS – CCR	AM3/153 Refrigerant – 22	SABROE . AARHUS DENMARK	AC21229-001

PROVISION COOLING PLANT

COMPONENTS	TYPE	MANUFACTURER	SER.No
COMPRESSORS	BFO4 ; WP = 19/25 bar Refrigerant – 22	SABROE INDUSTRIEKALTE HAMBURG	AC22880-001 AC22881-001
EL.MOTORS	AM 160 MO4 Q4 15 kW , 1460 rpm	AEG	02614740/1F
COOLING PUMPS			
EL.MOTORS			

INCINERATOR

	TYPE	MANUFACTURER	SER.No
	IRL -30; Capacity - 50 l / h	DETEGASA	9708.00IRL30.118
COMPONENTS			SER.No
SLUDGE DOSIFIER PUMP	SB 14 R 5	MONOPUMPS , DRESSER	S 337 592 / 05
EL.MOTOR	MA 80 A6 B 5 0.37 kW, 930 rpm	MARELLI MOTORI	
SLUDGE CIRCUL.PUMP	CAA 12F 1R2	MONOPUMPS , DRESSER	
EL.MOTOR	M 2 AA 090 S8 0.37 kW, 700 rpm	ABB MOTORS	
OIL BURNER	AZ 14/2 SPECIAL	FINTERM spa , ITALY	
FLUE GAS FAN	EN 600334	SIEMENS	
CONTROL PANEL	NIMEL		

MISCELLANEOUS EQUIPMENT

	TYPE, MODEL	CAPACITY (INC DRIVER)	MANUFACTURER (INC DRIVER)
DECK PROVISION CRANES	KEX - 1.6 t	SER.No 60 , 61 SWL=1.6 t	MAYAK-KM LTD NOVI PAZAR
ENGINE ROOM BRIDGE CRANE	KM - 2.0 - 4.6	SER.No 004 SWL=2.0 t	MAYAK-KM LTD NOVI PAZAR
UNIVERSAL LATHE	C 8C		ZMM SLIVEN
DRILLING MACHINE	PK203 SER No31813	STEEL-20 MM C.AIRON-25 MM	ZMM METALIK PAZARDGJIK
WELDING APARAT	ISL 5 CL		LORCH
UNIVERSAL MILLING MACHINE			