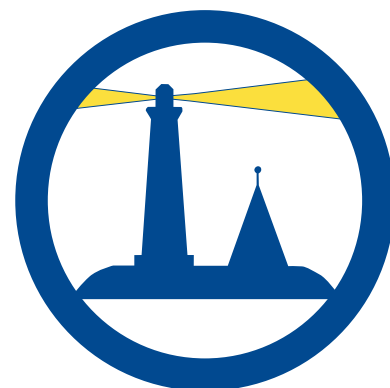


# OUR NEXT GENERATION THE MOST ENVIRONMENT FRIENDLY PRODUCT TANKERS



 MEMBER OF  
**GOTHIA TANKER ALLIANCE**

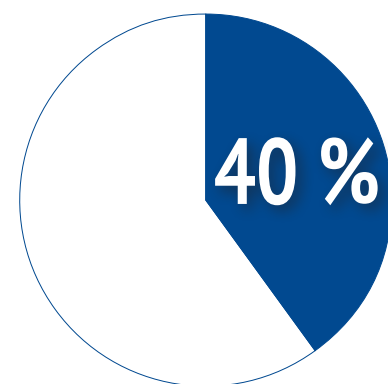


# THE BEST WAY TO CARE FOR THE ENVIRONMENT IS TO OFFER ENERGY AND EMISSION REDUCING SOLUTIONS.

**FURETANK** provides full technical and commercial management with focus on environment and efficiency.

Together with our partners, we have developed climate smart vessels that meet future needs and requirements.

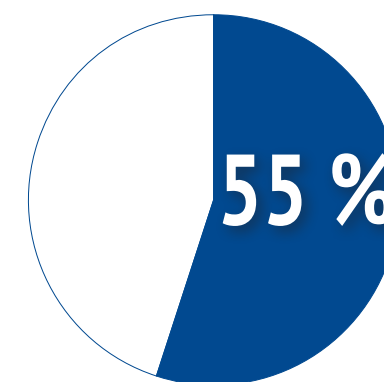
## ENERGY EFFICIENCY



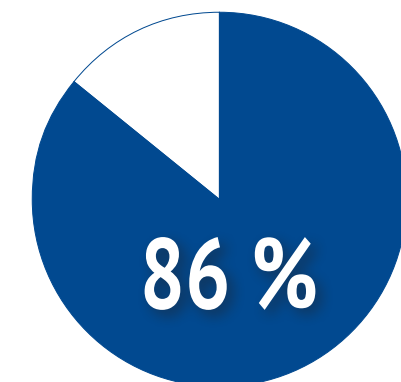
**FUEL REDUCTION**

*Compared to a vessel with same size built 2006, speed 12 knots.*

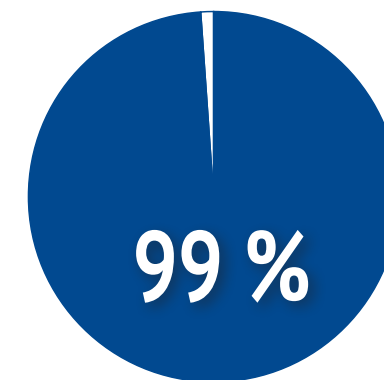
## EMISSION REDUCTION



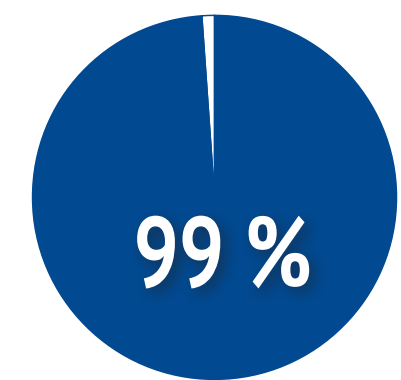
**CO<sub>2</sub>** <sup>\*)</sup>



**NO<sub>x</sub>**



**SO<sub>x</sub>**

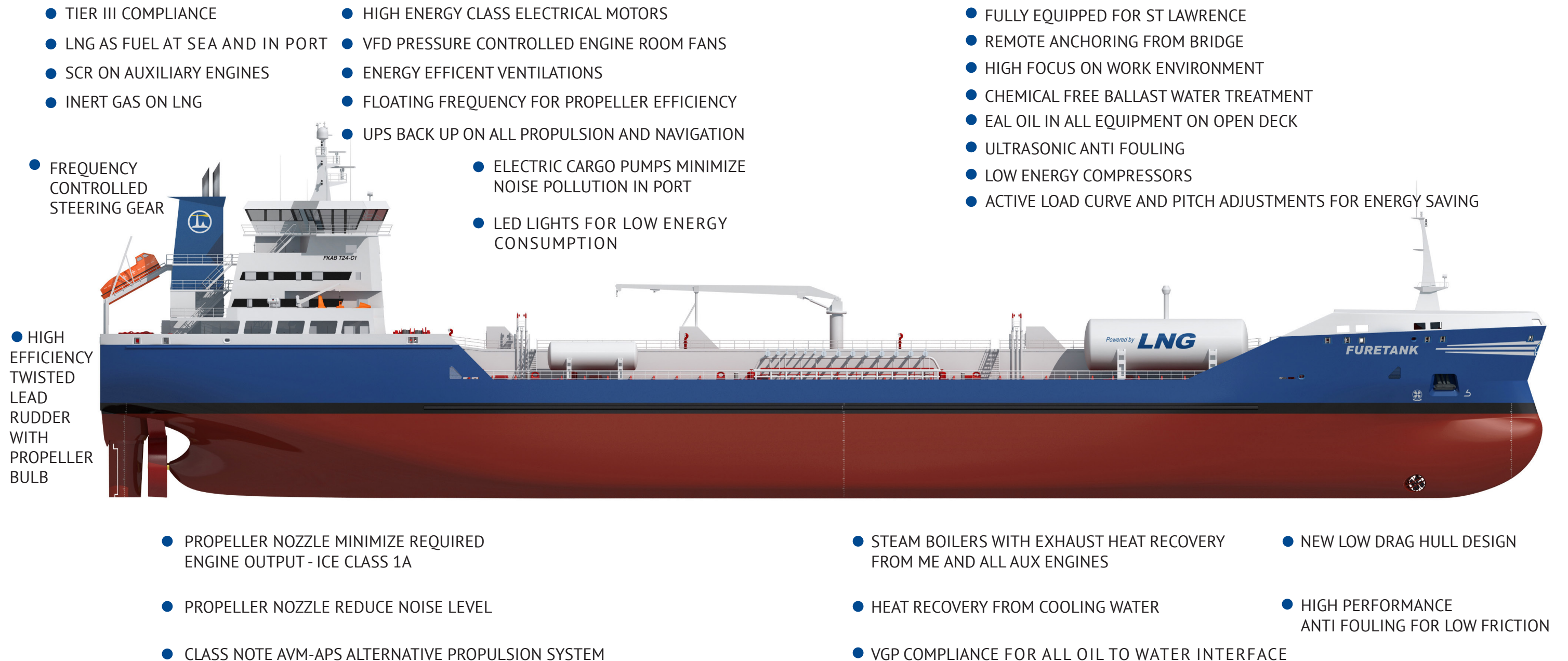


**PARTICLES**

*\*) CO<sub>2</sub> can be eliminated if biogas is used*



# WE DO NOT ONLY WANT TO FOLLOW THE DEVELOPMENT, WE WANT TO BE PART OF CREATING IT.



Mean draft Bok	Salt water					Fresh water		
	Displacement	MCT	TpCm	Deadweight	Density	Deadweight	Displacement	Mean draft Bok
9.5	25000	310	30.7	18600	1.020	18000	24600	9.5
9.4	24800	308	30.6	18400	1.015	17800	24200	9.4
9.3	24600	306	30.5	18200	1.010	17600	23800	9.3
9.2	24400	304	30.4	18000	1.005	17400	23600	9.2
9.1	24200	302	30.3	17800		17200	23400	9.1
9	24000	300	30.2	17600		17000	23200	9
8.9	23800	298	30.1	17400		16800	22800	8.9
8.8	23600	296	30.0	17200		16600	22600	8.8
8.7	23400	294	29.9	17000		16400	22400	8.7
8.6	23200	292	29.8	16800		16200	22200	8.6
8.5	23000	290	29.7	16600		16000	22000	8.5
8.4	22800	288	29.6	16400		15800	21800	8.4
8.3	22600	286	29.5	16200		15600	21600	8.3
8.2	22400	284	29.4	16000		15400	21400	8.2
8.1	22200	282	29.3	15800		15200	21200	8.1
8	22000	280	29.2	15600		15000	21000	8
7.9	21800	278	29.1	15400		14800	20800	7.9
7.8	21600	276	28.9	15200		14600	20600	7.8
7.7	21400	274	28.8	15000		14400	20400	7.7
7.6	21200	272	28.7	14800		14200	20200	7.6
7.5	21000	270	28.6	14600		14000	20000	7.5
7.4	20800	268	28.5	14400		13800	19800	7.4
7.3	20600	266	28.4	14200		13600	19600	7.3
7.2	20400	264	28.3	14000		13400	19400	7.2
7.1	20200	262	28.2	13800		13200	19200	7.1
7	20000	260	28.1	13600		13000	19000	7
6.9	19800	258	28.0	12800		12800	18800	6.9
6.8	19600	256	27.9	12600		12600	18600	6.8
6.7	19400	254	27.8	12400		12400	18400	6.7
6.6	19200	252	27.7	12200		12200	18200	6.6
6.5	19000	250	27.6	12000		12000	18000	6.5
6.4	18800	248	27.5	11800		11800	17800	6.4
6.3	18600	246	27.4	11600		11600	17600	6.3
6.2	18400	244	27.3	11400		11400	17400	6.2
6.1	18200	242	27.2	11200		11200	17200	6.1
6	18000	240	27.1	11000		11000	17000	6
5.9	17800	238	27.0	10800		10800	16800	5.9
5.8	17600	236	26.9	10600		10600	16600	5.8
5.7	17400	234	26.8	10400		10400	16400	5.7
5.6	17200	232	26.7	10200		10200	16200	5.6
5.5	17000	230	26.6	10000		10000	16000	5.5
5.4	16800	228	26.5	9800		9800	15800	5.4
5.3	16600	226	26.4	9600		9600	15600	5.3
5.2	16400	224	26.3	9400		9400	15400	5.2
5.1	16200	222	26.2	9200		9200	15200	5.1
5	16000	220	26.1	9000		9000	15000	5
4.9	15800	218	26.0	8800		8800	14800	4.9
4.8	15600	216	25.9	8600		8600	14600	4.8
4.7	15400	214	25.8	8400		8400	14400	4.7
4.6	15200	212	25.7	8200		8200	14200	4.6
4.5	15000	210	25.6	8000		8000	14000	4.5
4.4	14800	208	25.5	7800		7800	13800	4.4
4.3	14600	206	25.4	7600		7600	13600	4.3
4.2	14400	204	25.3	7400		7400	13400	4.2
4.1	14200	202	25.2	7200		7200	13200	4.1
4	14000	200	25.1	7000		7000	13000	4
3.9	13800	198	25.0	6800		6800	12800	3.9
3.8	13600	196	24.9	6600		6600	12600	3.8
3.7	13400	194	24.8	6400		6400	12400	3.7
3.6	13200	192	24.7	6200		6200	12200	3.6
3.5	13000	190	24.6	6000		6000	12000	3.5
3.4	12800	188	24.5	5800		5800	11800	3.4
3.3	12600	186	24.4	5600		5600	11600	3.3
3.2	12400	184	24.3	5400		5400	11400	3.2
3.1	12200	182	24.2	5200		5200	11200	3.1
3	12000	180	24.1	5000		5000	11000	3
2.9	11800	178	24.0	4800		4800	10800	2.9
2.8	11600	176	23.9	4600		4600	10600	2.8
2.7	11400	174	23.8	4400		4400	10400	2.7
2.6	11200	172	23.7	4200		4200	10200	2.6
2.5	11000	170	23.6	4000		4000	10000	2.5
2.4	10800	168	23.5	3800		3800	9800	2.4
2.3	10600	166	23.4	3600		3600	9600	2.3
2.2	10400	164	23.3	3400		3400	9400	2.2
2.1	10200	162	23.2	3200		3200	9200	2.1
2	10000	160	23.1	3000		3000	9000	2
1.9	9800	158	23.0	2800		2800	8800	1.9
1.8	9600	156	22.9	2600		2600	8600	1.8
1.7	9400	154	22.8	2400		2400	8400	1.7
1.6	9200	152	22.7	2200		2200	8200	1.6
1.5	9000	150	22.6	2000		2000	8000	1.5
1.4	8800	148	22.5	1800		1800	7800	1.4
1.3	8600	146	22.4	1600		1600	7600	1.3
1.2	8400	144	22.3	1400		1400	7400	1.2
1.1	8200	142	22.2	1200		1200	7200	1.1
1	8000	140	22.1	1000		1000	7000	1
0.9	7800	138	22.0	800		800	6800	0.9
0.8	7600	136	21.9	600		600	6600	0.8
0.7	7400	134	21.8	400		400	6400	0.7
0.6	7200	132	21.7	200		200	6200	0.6
0.5	7000	130	21.6	0		0	6000	0.5
0.4	6800	128	21.5				5800	0.4
0.3	6600	126	21.4				5600	0.3
0.2	6400	124	21.3				5400	0.2
0.1	6200	122	21.2				5200	0.1
0	6000	120	21.1				5000	0

LAKE MÄLAREN (NEW SÖDERTÄLJE CANAL)	7,0 M	10600 TDW
ÖRESUND/DROGDEN	7,7 M	12900 TDW
MANCHESTER CANAL	7,9 M	13000 TDW
DESIGN	8,9 M	16300 TDW
SUMMER	9,4 M	18200 TDW

CARGO TANKS	SPEC. GR. 1.5	VOLUME 100 %
CARGO (SLOP) TANK 1 SB		667 M³
CARGO TANK 1 P		674 M³
CARGO TANK 2 SB		1924 M³
CARGO TANK 2 P		1917 M³
CARGO TANK 3 SB		1759 M³
CARGO TANK 3 P		1766 M³
CARGO TANK 4 SB		2104 M³
CARGO TANK 4 P		2098 M³
CARGO TANK 5 SB		2097 M³
CARGO TANK 5 P		2104 M³
CARGO TANK 6 SB		1598 M³
CARGO TANK 6 P		1598 M³
CARGO TANKS TOTALLY		20306 M³

CLASS

BUREAU VERITAS (BV) DUAL FUEL (LNG), +HULL, +MACH, OIL TANKER, CHEMICAL TANKER, ESP, UNRESTRICTED NAVIGATION, ICE CLASS 1A, AUT-IMS, SYS-IBS-1, MIN-SHAFT, VCS, INWATER SURVEY, CLEAN SHIP, EWCT, BWT, AVM-APS, IG

DESIGN

FKAB MARINE DESIGN  
LOW DRAG HULL DESIGN

SERVICE SPEED 12 KNOTS

FUEL CONSUMPTION 8,2 TON LNG  
WITH SHAFT GENERATOR CONNECTED

PARTICULARS

LENGTH OVER ALL 149,9 M  
BREADTH 22,8 M  
DEPTH 12,1 M  
DRAFT DESIGN 8,9 M  
DRAFT SUMMER 9,4 M

TONNAGE

DWT DESIGN 16,300 T  
DWT SUMMER 18,200 T  
GRT 12595 T  
NRT 5837 T

TANKCAPACITY

CARGO 98 % 19,900 M³  
BALLAST 7400 M³  
LNG 600 M³  
HFO 540 M³  
DO 170 M³  
FRESH WATER 50/300 M³

CARGO HEATING

HEAT EXCHANGER  
STEAM BOILERS 9,5 STEAM TON/H

CARGO PUMP

ELECTRIC DEEP WELL PUMPS  
CARGO PUMPS 12X300 M³/H  
SLOP PUMPS 300 M³/H  
BALLAST PUMPS 2X500 M³/H  
DISCHARGE CAP 1800 M³/H

MAIN ENGINE

WÄRTSILÄ 9L34DF 4500 KW

AUXILIARY ENGINES

WÄRTSILÄ 688W4L20 688 KW  
WÄRTSILÄ 1600W9L20 1600 KW

BOW THRUSTER

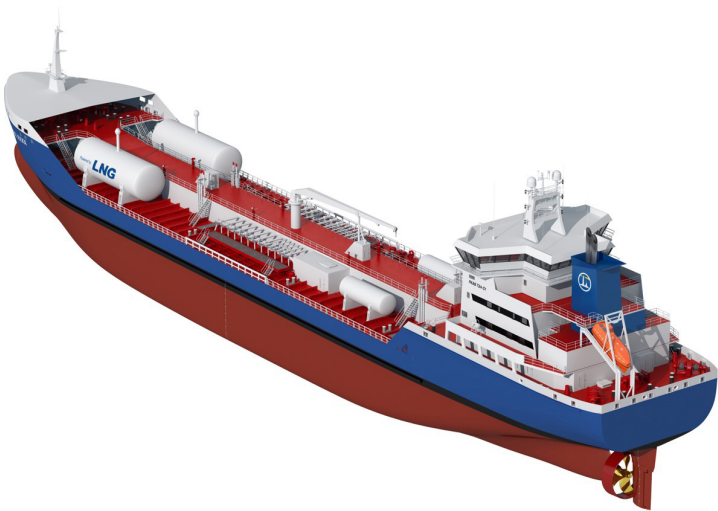
BRUNVOLL FU63LTC1750 850 KW

INERT GAS SYSTEM

FUEL LNG/DIESEL  
CAPACITY 2250 M³/H

BALLAST WATER TREATMENT

ALFA LAVAL PURE BALLAST



## DESCRIPTION OF POINTS

### **TIER III COMPLIANCE**

International Maritime Organization (IMO) highest emission classification.

### **LNG AS FUEL AT SEA AND IN PORT**

Inert gas generator can be operated on LNG, for cleaner emissions.

### **SCR ON AUXILIARY ENGINES**

Selective Catalytic Reactors (SCR) are installed, reducing NOx emissions.

### **INERT GAS ON LNG**

Inert gas generator will have the possibility to be operated on LNG, for cleaner emissions.

### **FREQUENCY CONTROLLED STEERING GEAR**

A more efficient way to operate the actuation of the rudder.

### **HIGH EFFICIENCY TWISTED LEAD RUDDER WITH PROPELLER BULB**

A special kind of rudder design that aims to minimize drag while optimizing stability and efficiency.

### **PROPELLER NOZZLE MINIMIZE REQUIRED ENGINE OUTPUT - ICE CLASS 1A**

With a propeller nozzle fitted the propeller will deliver approximately 25% more pull.

### **PROPELLER NOZZLE REDUCE NOISE LEVEL**

Propeller Nozzle will also reduce the underwater noise that is emitted from the propeller.

### **CLASS NOTE AVM-APS ALTERNATIVE PROPULSION SYSTEM**

AVM-APS is a classification notation for assisted propulsion, secondary propulsion system.

### **ENERGY CLASS ELECTRICAL MOTORS**

All electric motors on board has the highest possible energy efficiency class.

### **VFD PRESSURE CONTROLLED ENGINE ROOM FANS**

The engine room fans are automatically controlled in order to minimize energy consumption.

### **ENERGY EFFICIENT VENTILATIONS**

All ventilation systems are designed to consume a minimum amount of energy.

### **FLOATING FREQUENCY FOR PROPELLER EFFICIENCY**

Technical solution that make it able to run the propeller at a variable speed, resulting in reduced energy consumption.

### **UPS BACK UP ON ALL PROPULSION AND NAVIGATION**

The electrical system have a battery backup that will minimize the risk of a blackout, resulting in improved safety.

### **CHEMICAL FREE BALLAST WATER TREATMENT**

Ballast water treatment that is not using any chemical additives.

### **ULTRASONIC ICAF**

Anti fouling system for box coolers that uses ultrasonic sound waves to deter organisms from growing inside the box coolers.

### **VGP COMPLIANCE FOR ALL OIL TO WATER INTERFACE**

All systems containing oil that potentially can be leaking into the sea are filled with biodegradable oils.

### **LED LIGHTS FOR LOW ENERGY CONSUMPTION**

All lights on board where possible are of LED type.

### **REMOTE ANCHORING FROM BRIDGE**

The anchors are able to be released from bridge.

### **ACTIVE LOAD CURVE AND PITCH ADJUSTMENT FOR ENERGY SAVING**

A way to optimize the propeller RPM and pitch depending on cargo condition.

### **EAL OIL IN ALL EQUIPMENT ON OPEN DECK**

EAL is an biodegradable oil.

## FURETANK