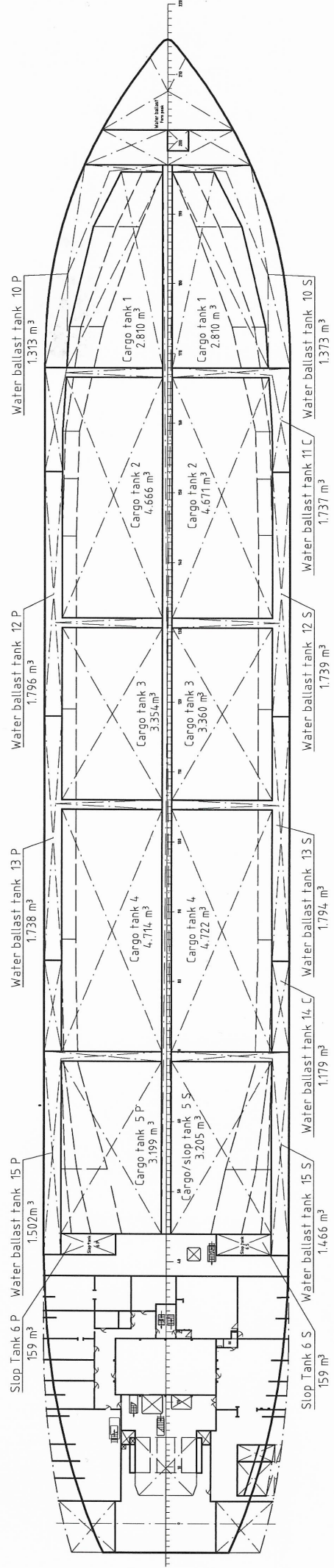
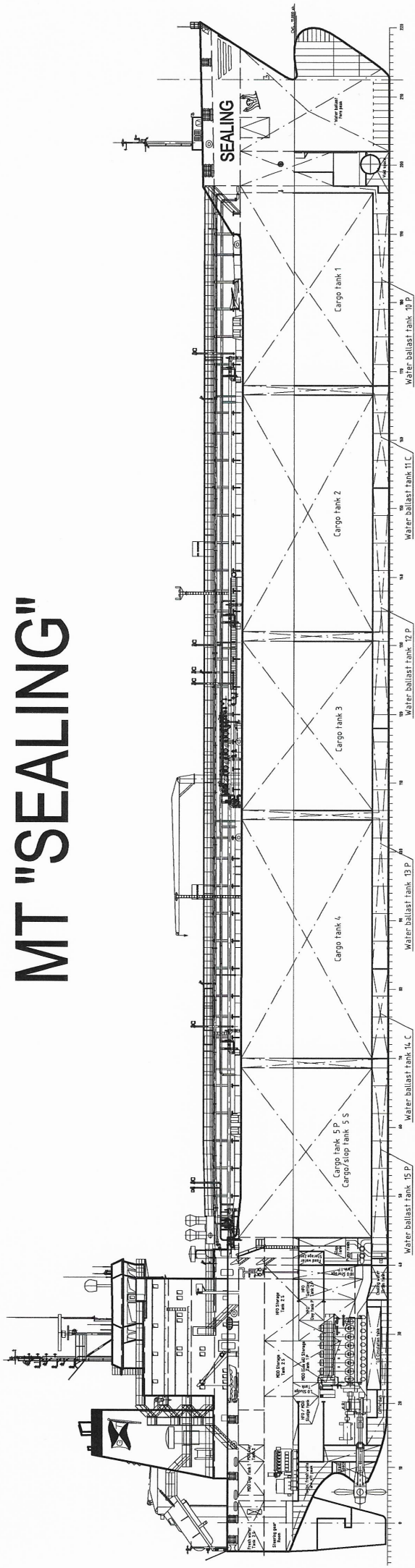




**GERMAN TANKER SHIPPING** GmbH & Co KG  
Ship Owners & Tanker Operators

# MT "SEALING"





## TMS "SEALING"

Delivered 20.05.2003

### Call Sign DECO



Double hull oil tanker with Finnish ice class 1B, constructed for world wide trade incl. Panama and Suez Canal with oil products and crude oil.

Maximum specific gravity of cargo 1,1 t/m<sup>3</sup>

IMO Reg. No. 925 16 52

GL Reg. No. 110 585

## Ships Main Data

Class:	GL  100A5 E2 Oil/Product Tanker ESP COLL 3
	 MC E2 AUT INERT
Gross Tonnage	21.356 GT
Reduced GT (SBT)	16.315 GT
Net Tonnage	8.390 NT
Light Ship	8.813 t
Deadweight	32.480 t
Cargo Capacity 100 %	37.511 m <sup>3</sup>
Draught (summer/winter)	11,00 m
Immersion (11 m)	42 t/cm
Length over all	177,75 m
Length b.p.	168,00 m
Breadth moulded	28,00 m
Depth to Main deck	16,80 m
Distance KEEL – TOP OF THE MAST	44,45 m
Distance BOW – CENTRE MANIFOLD	84,88 m
Distance STERN – CENTRE MANIFOLD	92,88 m
Distance SHELL – PIPE FLANGE	4,60 m
Contract Speed (6.600 kW, trial)	15,10 kn

## Ships Equipment

Manifold Crane, HMB 10 mt / 3,50 – 19,10 m

Boat-/Provision Crane 6 mt / 2,66 – 12,93 m

Free fall Life boat 28 Persons

Foam Fire Fighting System for Cargo Area

CO<sub>2</sub> Fire Fighting System for Machinery rooms

Fixed water based local application system for

combustion engines, burners and fuel separators

Fresh water Generator 12 t/day

Accommodation for 28 Persons

Electric System:

for main equipment 400 V, 3 Phase, 50 Hz

for lighting and AC consumers 230 V, 50 Hz

Battery 24 V 340 Ah

All Cargo Tanks coated: EPICON T 800

All Ballast Tanks coated: Intergard EPOXY 423

Emergency towing system fore and aft

Single Point mooring system foreship

6 double drum mooring winches, 160 kN pull

Ventilation System:

Engine Control Room Supply mech., Exh. nat.

Engine Room Supply mech., Exh. nat.

Pump Room (20 ch/h) Supply nat., Exh. mech.

Galley Supply nat., Exh. mech./nat.

Accommodation Air Conditioning

## Navigationl Equipment

1 x	Multi pilot 1029 3B 14S, ARPA S
1 x	Chartradar 2B 5X, ARPA X
1 x	Chart Pilot ATLAS 9330 PCS – ECDIS
1 x	Track pilot SW
1 x	LOG Plath NAVIKNOT III FNF
1 x	Anschütz AUTOPILOT NAUTOPILOT D
1 x	Anschütz Digital Gyro Compass STANDARD 20 PLUS
1 x	GMDSS Radio Plant DEBEG 3100 H + E, A1, A2, A3
1 x	GPS DEBEG 4422, 1 x DGPS DEBEG 4422D
1 x	Automatic ship identification system
1 x	Voyage data recorder

## Ships Machinery Data

Main Engine MAN B&W 6L58/64  
Nominal Output 8.340 kW at 428 rpm  
Fuel IFO 380

Gear Unit Renk AG  
Gear Ratio 428/100 = 4,28

Secondary PTO for shaft generator, 1.500 rpm  
Coupling 1 Vulkan- Rato- S

Aux. Diesel Engine 3 x YANMAR 6N21AL-GV  
Nominal Output 1.030 kW at 750 rpm  
Fuel MDO M2

Generators HHI ,HFC6 564-64E OY  
Output 960 kW/1.200 kVA (cosφ=0,8)

Emergency Engine DEUTZ BF 6M 1015  
Output 179 kW at 1.500 rpm

Generator AvK, DSG 52 M0-4  
Output 200 kVA / 160 kW (cosφ=0,8)

Shaft Generator AvK, DSG 86 M1-4  
Output 1.400 kVA/1.120 kW (cosφ=0,8)

VPP Plant Lips  
Number of Blades four  
Diameter 6.000 mm  
Material NIAL-Bronce  
Sense of Rotation left

Rudder Balanced Semi Spade Rudder

Steering gear, rotary vane Ulstein Frydenbö

Bow Thruster Lips  
Power 1.050 kW, 165 kN thrust

Steam boiler, 11 t/h Aalborg, AQ -9  
Exhaust gas boiler, 1 t/h Aalborg, AQ -7

Electrical System 50 Hz  
400 V – 240 V / 24 V DC

## Cargo Equipment

- 5 Grade segregation
  - 3 Main pipes at manifold , DN 400
  - 10 Hydraulic submerged pumps for Cargo Capacity each 500 m<sup>3</sup>/h, 120 mlc
  - 2 Hydraulic submerged pumps for Slop Capacity each 200 m<sup>3</sup>/h, 120 mlc.
  - 1 Screw pump for tank washing, emergency discharging and COW
  - 1 Aalborg AQ oil fired boiler, IF 380 Capacity 11 t/h, Steam Pressure 10 bar
  - 1 Aalborg AQ 7 exhaust gas boiler Capacity 1 t/h Steam pressure 10 bar
  - 2 Butterworth Heater, cap. 3.000 kW
  - 12 Fixed Tank Washing Machines
  - 4 Portable Tank Washing Machines
- Remote control of cargo, slop and crude oil washing pump from control desk at cargo control room
- Remote control of butterfly valves for cargo pumps and drop lines from control desk at cargo control room with interposition indication
- Manual control of double segregation valves at manifold
- Fixed installed emergency discharging system via crude oil / tank washing pump and separate suction pipes in the cargo tanks
- Emergency discharge under closed condition
- Super stripping system with air driven pumps
- Loading computer, online connected to cargo tank radar and tank level indication system for Ballast and storage tanks.
- All cargo pipes, cargo pumps, fittings in the cargo tanks and cargo valves are made of stainless steel.
- Oil monitoring system for slop discharge.
- Closed loading/discharging system.
- Vapour return line
- 1 Inert gas Plant, cap 3.750 m<sup>3</sup>/h

## Cargo Tanks

98 % filling

(max specific gravity 1.10 t/m<sup>3</sup>)

Cargo Tank 1 P	2.754	m <sup>3</sup>
Cargo Tank 1 S	2.754	m <sup>3</sup>
Cargo Tank 2 P	4.573	m <sup>3</sup>
Cargo Tank 2 S	4.578	m <sup>3</sup>
Cargo Tank 3 P	3.287	m <sup>3</sup>
Cargo Tank 3 S	3.293	m <sup>3</sup>
Cargo Tank 4 P	4.619	m <sup>3</sup>
Cargo Tank 4 S	4.627	m <sup>3</sup>
Cargo Tank 5 P	3.135	m <sup>3</sup>
Cargo/Slop Tank 5 S	3.141	m <sup>3</sup>
<b>Total Cargo Capacity</b>	<b>36.761</b>	<b>m<sup>3</sup></b>

Slop Tank 6 P

156 m<sup>3</sup>

Slop Tank 6 S

156 m<sup>3</sup>

**Total Cap. incl. Slop Tanks**

**37.073 m<sup>3</sup>**

## Heavy Fuel Oil Tanks

(specific gravity 0,97 t/m<sup>3</sup>, 100 %)

HFO Storage Tank 1 P	269,1	m <sup>3</sup>	261,0	t
HFO Storage Tank 2 S	424,1	m <sup>3</sup>	411,4	t
HFO Settling Tank 1 P	59,1	m <sup>3</sup>	57,3	t
HFO Settling Tank 2 P	71,0	m <sup>3</sup>	68,9	t
<u>HFO Day Tank P</u>	<u>33,1</u>	<u>m<sup>3</sup></u>	<u>32,1</u>	<u>t</u>
<b>Total HFO Capacity</b>	<b>856,4</b>	<b>m<sup>3</sup></b>	<b>830,7</b>	<b>t</b>

## Marine Diesel Oil Tanks

(specific gravity 0,86 t/m<sup>3</sup>, 100 %)

MDO (Gas Oil) Stor. Tk 1P	147,3	m <sup>3</sup>	126,7	t
MDO Storage Tank 2S	177,0	m <sup>3</sup>	152,2	t
MDO Day Tank 1	17,3	m <sup>3</sup>	14,9	t
MDO Day Tank 2	26,9	m <sup>3</sup>	23,1	t
<u>Gas Oil Tank Emerg. Gen.</u>	<u>2,1</u>	<u>m<sup>3</sup></u>	<u>1,8</u>	<u>t</u>
<b>Total MDO (Gas oil) Cap.</b>	<b>370,6</b>	<b>m<sup>3</sup></b>	<b>318,7</b>	<b>t</b>

## Lubricating Oil Tanks

(specific gravity 0,92 t/m<sup>3</sup>, 100 %)

LO Circulation Tank, ME	26,9	m <sup>3</sup>	24,7	t
LO Storage Tank, ME	65,3	m <sup>3</sup>	60,1	t
<u>LO Stor. Tank Aux. Eng.</u>	<u>9,3</u>	<u>m<sup>3</sup></u>	<u>8,6</u>	<u>t</u>
<b>Total Lub Oil Capacity</b>	<b>101,5</b>	<b>m<sup>3</sup></b>	<b>93,4</b>	<b>t</b>

## Fresh /Drinking Water

(specific gravity 1,0 t/m<sup>3</sup>, 100 %)

Fresh Water Tank 1 P	76,1	m <sup>3</sup>
Fresh Water Tank 2 S	76,1	m <sup>3</sup>
Feed Water Storage Tank	27,4	m <sup>3</sup>
Feed Water Cond. Tank	5,1	m <sup>3</sup>
<u>Techn. F W Tank Aftpeak</u>	<u>131,2</u>	<u>m<sup>3</sup></u>
<b>Total Fresh / Drinking Water Cap.</b>	<b>315,9</b>	<b>m<sup>3</sup></b>

## Water ballast Tanks

(specific gravity 1.025 t/m<sup>3</sup>)

Ballast Tank 10 P	1.313,8	m <sup>3</sup>	1.346,6	t
Ballast Tank 10 S	1.373,0	m <sup>3</sup>	1.407,3	t
Ballast Tank 11	1.737,0	m <sup>3</sup>	1.780,4	t
Ballast Tank 12 P	1.796,1	m <sup>3</sup>	1.841,0	t
Ballast Tank 12 S	1.739,4	m <sup>3</sup>	1.782,9	t
Ballast Tank 13 P	1.738,0	m <sup>3</sup>	1.781,5	t
Ballast Tank 13 S	1.794,7	m <sup>3</sup>	1.839,6	t
Ballast Tank 14	1.179,7	m <sup>3</sup>	1.209,2	t
Ballast Tank 15 P	1.502,2	m <sup>3</sup>	1.539,8	t
Ballast Tank 15 S	1.466,1	m <sup>3</sup>	1.502,8	t
<u>Ballast Forepeak</u>	<u>1.077,7</u>	<u>m<sup>3</sup></u>	<u>1.104,6</u>	<u>t</u>
<b>Total Water Ballast</b>	<b>16.717,7</b>	<b>m<sup>3</sup></b>	<b>17.135,6</b>	<b>t</b>