MERCHANT SHIPS PORTFOLIO
CREATING SOLUTIONS, CREATING FUTURE
DELTAMARINE
MERCHANDISING PORTFOLIO
CREATING SOLUTIONS, CREATING FUTURE
Delta Marine founded in 1996 by a group of naval architects, is a ship design and consultancy firm established to meet the demands of engineering solutions for maritime sector and shipbuilding activities. The company provides design, engineering and consultancy services for building of merchant/naval, yachts and offshore structures.

From very beginning of its establishment, Delta Marine has begun to present integrated solutions covering basic design, production engineering, post-production services, advanced engineering analysis, project management, building supervision and consultancy. By following the latest developments both in professional and computer technologies Delta Marine’s continuously improved service quality has drawn big interest from clients. Thus the company has become the most reputable ship design consultancy in Turkey and a favorite partner in World market.

Delta Marine always cares about working with a multidisciplinary staff who bring added value into each phase of the design process. Throughout the years the company has always acted as an academia from where many young engineers and technicians have graduated. Delta Marine relies on blending the experience with dynamism to establish a strong, focused and efficient team while embracing different approaches in a manner to reach professional perfection.

Delta Marine follows the approach of client-focused design development and expanding the corporate knowledge by benefiting from every feedback which happens in various projects. This philosophy has been proven many times so that the organization started to be known as a solution creator providing economical, safe, comfortable, aesthetic and environment-friendly products to maritime sector. Today Delta Marine is proud to present a big fleet sailing in different parts of the World’s seas.
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GENERAL
CARGO SHIPS
This project is created as a single and box-shaped design to ease the loading/unloading operations. The operational costs are minimized by determination of special gross tonnage, engine power and crew capacity. The length of the ship is intentionally determined while optimized steel weight provides low level investment cost. During the design process the state-of-the-art technology has been used with computer aided naval architecture tools and advanced engineering applications have been carried out to create an economical, safe and comfortable unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
5000 DWT GENERAL CARGO SHIP

SPECS

**Capacities**
- Cargo: 6,260 m³
- Water Ballast: 1,600 m³
- HFO: 90 m³
- MDO: 26 m³
- Fresh Water: 44 m³

**Speed Consumption/Range**
- Design speed: 12.5 knots
- Consumption: 6.2 t/day
- Cruising range: 3,750 nm

**Machinery Main Components**
- Main Engine: 2 x 745 kW
- Propeller: 2 x 3,500 mm FPP
- Diesel Generator: 2 x 200 kW
- Em’cy Diesel Generator: 1 x 99 kW

**Main Dimensions**
- \(L_{OA}\): 80.20 m
- \(L_{OP}\): 78.11 m
- \(B\) (molded): 16.00 m
- \(D\) (molded): 7.50 m
- Draught (design): 6.00 m
- Draught (scantling): 6.55 m

**Tonnage**
- DWT (at design): 4,600 t
- DWT (at scantling): 5,200 t
- GRT (app): 2,990
- NT (app): 1,730

**Complement**
The accommodation area is to be arranged for 12 crews. Ten (10) single berth cabins and two (2) suits with separate bedroom are to be provided.

Lifesaving equipment is to be arranged for twelve (12) people.

**SCAPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
- No References Yet
The vessel is designed as double hull, single screw propulsion, general cargo vessel for unrestricted navigation, being capable to carry general cargoes, bulk cargoes, steel coil and container. There is one (1) box-shaped cargo hold which eases the loading / unloading operations. There is one (1) gantry crane which serves pontoon type hatch covers. Cargo hold tank top is reinforced against the loads up to 12 t/m². There is no structural element facing in the hold and this design brings the advantage of reduction in time for cleaning. The operational costs are minimized by determination of special gross tonnage, engine power and crew capacity. The length of the ship is intentionally determined while optimized steel weight provides low level investment cost. During the design process the state-of-the-art technology has been used with computer aided naval architecture tools and advanced engineering applications have been carried out to create an economical, safe and comfortable unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo.
**SCOPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
1. TÜRK YILDIZI - 1
2. TÜRK YILDIZI - 2
3. TÜRK YILDIZI - 3

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**5000 DWT GENERAL CARGO SHIP**

**SPECS**

**Capacities**
- Cargo: 5,900 m³
- Water Ballast: 1,930 m³
- HFO: 110 m³
- MDO: 25 m³
- Fresh Water: 33 m³

**Speed Consumption/Range**
- Design speed: 11.0 knots
- Consumption: 5.0 t/day
- Cruising range: 4,750 nm

**Machinery Main Components**
- Main Engine: 1 x 1,200 kW
- Propeller: 1 x 3,600 mm FPP
- Diesel Generator: 2 x 225 kW
- Em’cy Diesel Generator: 1 x 99 kW

**Main Dimensions**
- L₉₅: 83.12 m
- Lₙ₅: 78.05 m
- B (molded): 15.80 m
- D (molded): 7.65 m
- Draught (design): 6.00 m
- Draught (scantling): 6.60 m

**Tonnage**
- DWT (at design): 4,670 t
- DWT (at scantling): 5,000 t
- GRT (app): 2,930
- NT (app): 1,625

**Complement**
The accommodation area is to be arranged for 12 crews. Ten (10) single berth cabins and two (2) suits with separate bedroom are to be provided with private facilities.

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**CONTACT**
www.deltamarine.com.tr

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**SPECS**
DELTA MARINE MERCHANT SHIPS DESIGN PORTFOLIO

**CONTAINER**
**BULK CARRIER**
**GENERAL CARGO**
**MULTIPURPOSE**
**TANKER**
**PASSENGER**
**INDUSTRIAL**
**UTILITY**
7500 DWT GENERAL CARGO SHIP

The project is mainly designed as single screw, double hull, box shaped two cargo holds, serving with folding type hatch covers and two deck cranes. She is designed for carriage of general cargoes, timber, paper, project cargoes, bulk cargoes such as coal, grain, dangerous cargo (Solas II-2 Reg 19) and container cargoes (optional) in holds up to 10 t/m², on main deck and on hatch covers. Cargo holds are surrounded by double hull from side and bottom. Tank top and side lower plating are reinforced for grab discharge. During the design process the state-of-the-art technology has been used with computer aided naval architecture tools and advanced engineering applications have been carried out to create an economical, safe and comfortable unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
7500 DWT GENERAL CARGO SHIP

SPECS

Capacities
- Cargo: 9,770 m³
- Water Ballast: 2,900 m³
- HFO: 300 m³
- MDO: 80 m³
- Fresh Water: 80 m³

Speed Consumption/Range
- Design speed: 12.5 knots
- Consumption: 8.8 t/day
- Cruising range: 9,000 nm

Machinery

Main Components
- Main Engine: 1 x 2,040 kW
- Propeller: 1 x 3,900 mm FPP
- Diesel Generator: 3 x 450 kW
- Em’cy Diesel Generator: 1 x 99 kW

Complement
The accommodation area is arranged for 16 crews (14 cabins with single berth, 2 suits with separate bedroom, 1 pilot/owner cabin).

Lifesaving equipment is arranged for twenty (20) people. Safety manning is twenty (20) people.

Main Dimensions
- LOA: 113.85 m
- LBP: 106.20 m
- B (molded): 18.20 m
- D (molded): 8.50 m
- Draught (design): 6.50 m
- Draught (scantling): 6.50 m

Tonnage
- DWT (at design): 7,500 t
- DWT (at scantling): 7,750 t

SCOPE OF SERVICES
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES
- No References Yet
16 750 DWT
GENERAL CARGO SHIP

While the hull form and propulsion parameters optimized to perfection and the steel material optimized for minimum weight this project’s design is based on single two-stroke engine, fixed pitch highly efficient propeller, four pieces of box-shape holds, three pieces of cargo cranes (two pieces 30 t and one piece of 40 t), 20 t/m² tank-top load, Grab Discharge class notation, allowance to load dangerous goods, double skinned holds and bunker tanks, shallow draught and strengthened structure for iced sea areas. These sophisticated design properties provides building of a single screw, single deck, shallow draught ship able to make trade at worldwide level for carriage of general cargoes, steel coil, coal, grain, dangerous good etc.

BENEFITS

Low fuel consumption
Compliance with environmental requirements
Low operating cost
Low initial investment cost
Ability to carry various types of cargo
Ability to enter to ports with low draught
Ability to sail in iced sea areas
16 750 DWT GENERAL CARGO SHIP

SPECS

### Capacities

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<td>21 760 m³</td>
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<td>Water Ballast</td>
<td>7 650 m³</td>
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<tr>
<td>HFO</td>
<td>640 m³</td>
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<tr>
<td>MDO</td>
<td>80 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>140 m³</td>
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### Speed Consumption/Range

- Design speed: 13.5 knots
- Consumption: 15.5 t/day
- Cruising range: 11 000 nm

### Main Dimensions

- **LOA**: 152.50 m
- **LBP**: 146.00 m
- **B (molded)**: 22.50 m
- **D (molded)**: 10.80 m
- **Draught (design)**: 7.00 m
- **Draught (scantling)**: 7.75 m

### Tonnage

- **DWT (at design)**: 14 500 t
- **DWT (at scantling)**: 16 750 t
- **GRT (app)**: 11 600
- **NT (app)**: 5 700

### Machinery Main Components

- **Main Engine**: 1 x 4 440 kW
- **Propeller**: 1 x 3 950 mm FPP
- **Diesel Generator**: 3 x 475 kW
- **Em’cy Diesel Generator**: 1 x 99 kW

### Complement

The accommodation area is arranged for twenty (20) crews and one pilot/owner.

Eighteen (18) single berth cabins, two (2) suits with separate bedrooms and one (1) cabin for pilot/owner are provided.

Lifesaving equipment is arranged for twenty one (21) people.

### References

- PEACE
- ZEALAND JULIANA
- YM EVEREST

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**SCOPE OF SERVICES**

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses
25 000 DWT GENERAL CARGO SHIP

While the hull form and propulsion parameters optimized to perfection and the steel material optimized for minimum weight this projects design is based on single two-stroke engine, controllable pitch highly efficient propeller, five pieces of box-shaped cargo holds, four (4) pieces of 30 t cargo cranes, 18 t/m² tank-top load, Grab Discharge class notation, double skinned holds and bunker tanks and shallow draught. These sophisticated design properties enables building of a single screw, single deck, shallow draught ship able to make trade at worldwide level for carriage of general cargoes, steel coil, coal, grain, dangerous good, etc.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to enter to ports with low draught
- Ability to sail in iced sea areas
25 000 DWT GENERAL CARGO SHIP

SPECS

Capacities
- Cargo: 34 920 m³
- Water Ballast: 11 870 m³
- HFO: 1 000 m³
- MDO: 100 m³

Speed Consumption/Range
- Design speed: 14.0 knots
- Consumption: 21.8 t/day
- Cruising range: 15 000 nm

Machinery
- Main Engine: 1 x 6 300 kW
- Propeller: 1 x 5 000 mm CPP
- Diesel Generator: 3 x 475 kW
- Em’cy Diesel Generator: 1 x 99 kW

Main Dimensions
- LOA: 170.00 m
- LBP: 164.00 m
- B (molded): 27.60 m
- D (molded): 12.60 m
- Draught (design): 8.00 m
- Draught (scantling): 8.40 m

Tonnage
- DWT (at design): 22 300 t
- DWT (at scantling): 25 000 t

Complement
- The accommodation area is arranged for twenty two (22) crews and one pilot.
- Nineteen (19) single berth cabins, four (4) suits with separate bedrooms and additional two (2) spare cabins are provided.
- Lifesaving equipment is arranged for twenty five (25) people.

SCOPE OF SERVICES
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES
- No References Yet
While the hull form and propulsion parameters optimized to perfection and the steel material optimized for minimum weight, this project’s design is based on single two-stroke engine, controllable pitch highly efficient propeller, four pieces of box-shaped holds, two (2) pieces of 30 t cargo cranes and one (1) piece of 40 t cargo crane, 20 t/m² tank-top load, Grab Discharge class notation, double skinned holds and bunker tanks and shallow draught. These sophisticated design properties enables building of a single screw, single deck, shallow draught ship able to make trade at worldwide level for carriage of general cargoes, steel coil, coal, grain, dangerous good, etc.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to enter to ports with low draught
- Ability to sail in iced sea areas
26 000 DWT GENERAL CARGO SHIP

SPECS

Capacities
- Cargo: 34 350 m³
- Water Ballast: 10 930 m³
- HFO: 1 020 m³
- MDO: 165 m³
- Fresh Water: 120 m³

Speed Consumption/Range
- Design speed: 14.0 knots
- Consumption: 21.8 t/day
- Cruising range: 15 000 nm

Machinery Main Components
- Main Engine: 1 x 6 300 kW
- Propeller: 1 x 5 600 mm CPP
- Diesel Generator: 3 x 475 kW
- Em’cy Diesel Generator: 1 x 99 kW

Complement
- The accommodation area is arranged for twenty one (21) crews and one pilot. Eighteen (18) single berth cabins, four (4) suits with separate bedrooms and additional two (2) spare cabins are provided.
- Lifesaving equipment is arranged for twenty five (25) people.

Main Dimensions
- LOA: 173.75 m
- LBP: 166.00 m
- B (molded): 27.20 m
- D (molded): 12.60 m
- Draught (design): 8.50 m
- Draught (scantling): 8.79 m

Tonnage
- DWT (at design): 24 850 t
- DWT (at scantling): 26 050 t
- GRT: 18 035
- NT: 8 560

SCOPE OF SERVICES
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES
- Zealand Amalia
- Zealand Maxima
28 000 DWT
GENERAL CARGO SHIP

While the hull form and propulsion parameters optimized to perfection and the steel material optimized for minimum weight this projects design is based on single two-stroke engine, controllable pitch highly efficient propeller, five pieces of box-shaped cargo holds, two (2) pieces of 30 t and one (1) piece of 40 t cargo cranes, 20 t/m² tank-top load, Grab Discharge class notation, double skinned holds and bunker tanks and shallow draught. These sophisticated design properties enables building of a single screw, single deck, able to make trade at worldwide level for carriage of general cargoes, steel coil, coal, grain, dangerous good, etc.

BENEFITS
- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to enter to ports with low draught
- Ability to sail in iced sea areas
28 000 DWT GENERAL CARGO SHIP

**CAPACITIES**

<table>
<thead>
<tr>
<th>Cargo</th>
<th>37 800 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Ballast</td>
<td>12 000 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>1 100 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>100 m³</td>
</tr>
</tbody>
</table>

**SPEED CONSUMPTION/RANGE**

- Design speed: 14.0 knots
- Consumption: 22.6 t/day
- Cruising range: 16 000 nm

**MACHINERY MAIN COMPONENTS**

- Main Engine: 1 x 5 800 kW
- Propeller: 1 x 5 000 mm FPP
- Diesel Generator: 3 x 475 kW
- Em’cy Diesel Generator: 1 x 99 kW

**COMPLEMENT**

The accommodation area is arranged for twenty two (22) crews and one pilot. Nineteen (19) single berth cabins, four (4) suits with separate bedrooms and additional two (2) spare cabins are provided.

Lifesaving equipment is arranged for twenty five (25) people.

**MAIN DIMENSIONS**

- $L_{OA}$: 173.75 m
- $L_{PP}$: 166.00 m
- $B$ (molded): 27.20 m
- $D$ (molded): 13.80 m
- Draught (design): 8.75 m
- Draught (scantling): 9.50 m

**Tonnage**

- DWT (at design): 25 000 t
- DWT (at scantling): 28 000 t

**SCOPE OF SERVICES**

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**

- No References Yet
While the hull form and propulsion parameters optimized to perfection and the steel material optimized for minimum weight, this project’s design is based on single two-stroke engine, fixed pitch highly efficient propeller, four pieces of box-shape holds, three (3) pieces of 30 t cargo cranes, 18 t/m²; tank-top load, Grab Discharge class notation, allowance to load dangerous goods and double skinned holds and bunker tanks. 24.5x18.2 m clear hatch openings give the vessel easy loading/unloading. Each cargo hold has mechanical ventilation system. These sophisticated design properties provides building of a single screw, single deck ship able to make trade at worldwide level for carriage of bulk cargoes such as coal, grain, ore, etc. as well as heavy cargoes.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
20 000 DWT BULK CARRIER

**SCOPES OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
1. EYLUL K
2. ISMAIL K

**Capacities**
- Cargo: 26 630 m³
- Water Ballast: 8 135 m³
- HFO: 750 m³
- MDO: 110 m³
- Fresh Water: 135 m³

**Speed Consumption/Range**
- Design speed: 14.0 knots
- Consumption: 20.8 t/day
- Cruising range: 12 000 nm

**Main Dimensions**
- $L_{oa}$: 157.90 m
- $L_{bp}$: 151.50 m
- $B$ (molded): 23.20 m
- $D$ (molded): 12.50 m
- Draught (design): 8.60 m
- Draught (scantling): 9.00 m

**Tonnage**
- DWT (at design): 4 600 t
- DWT (at scantling): 5 200 t
- GRT (app): 2 990
- NT (app): 1 730

**Complement**
The accommodation area is arranged for twenty (20) crews, one (1) repair man and one (1) pilot. Nine (9) single berth cabins, nine (9) double berth cabins, two (2) suits with separate bedrooms and additional two (2) cabins for repair man and pilot are provided. Lifesaving equipment is arranged for twenty two (22) people.
32 000 DWT
BULK CARRIER

While the hull form and propulsion parameters optimized to perfection and the steel material optimized for minimum weight, this projects design is based on single two-stroke engine, fixed pitch highly efficient propeller, four pieces of box-shape holds, four (4) pieces of 35 t cargo cranes, 20 t/m² tank-top load, allowance to load dangerous goods, compliance with CSR and double skinned holds and bunker tanks. These sophisticated design properties provide building of a single screw, single deck ship able to make trade at worldwide level for carriage of bulk cargoes such as grain, ore, cement, alumina, bauxite, mineral sand, steel coils, timber and certain dangerous cargoes.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
### Capacities
- **Cargo**: 42 000 m³
- **Water Ballast**: 21 500 m³
- **HFO**: 1 500 m³
- **MDO**: 200 m³
- **Fresh Water**: 200 m³

### Speed Consumption/Range
- **Design speed**: 14.0 knots
- **Consumption**: 20.9 t/day
- **Cruising range**: 21 500 nm

### Machinery Main Components
- **Main Engine**: 1 x 6 050 kW
- **Propeller**: 1 x 6 000 mm FPP
- **Diesel Generator**: 3 x 680 kW
- **Em’cy Diesel Generator**: 1 x 120kW

### Complement
The accommodation area is arranged for twenty three (23) crews and one (1) pilot. Nineteen (19) single berth cabins, four (4) suits with separate bedrooms and additional one (1) cabin for pilot are provided.

Lifesaving equipment is arranged for twenty two (24) people.

### Main Dimensions
- **Loa**: 180.00 m
- **Lwp**: 174.00 m
- **B (molded)**: 28.00 m
- **D (molded)**: 14.15 m
- **Draught (design)**: 9.30 m
- **Draught (scantling)**: 9.80 m

### Tonnage
- **DWT (at design)**: 30 000 t
- **DWT (at scantling)**: 32 000 t
- **GRT (app)**: 21 200
- **NT (app)**: 11 200

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**No References Yet**
While the hull form and propulsion parameters optimized to perfection and the steel material optimized for minimum weight, this design is based on single two-stroke engine, fixed pitch highly efficient propeller, seven pieces of cargo holds, Grab Discharge class notation, compliance with CSR, double skinned holds and bunker tanks. These sophisticated design properties provide the building of a single screw, single deck, gearless ship able to make trade at worldwide level for carriage of light bulk cargoes such as grain, coal, fertilizer as well as heavier cargoes like ore, bauxite in bulk.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Compliance with IACS CSR Rules
- Ability to carry various types of cargo
SPECS

**78 000 DWT BULK CARRIER**

**Capabilities**
- **Cargo**: 86 670 m³
- **Water Ballast**: 38 750 m³
- **HFO**: 2 050 m³
- **MDO**: 150 m³
- **Fresh Water**: 200 m³

**Speed Consumption/Range**
- **Design speed**: 13.0 knots
- **Consumption**: 30.0 t/day
- **Cruising range**: 15 000 nm

**Machinery**

<table>
<thead>
<tr>
<th>Main Components</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Engine</strong></td>
<td>1 x 8 500 kW</td>
</tr>
<tr>
<td><strong>Propeller</strong></td>
<td>1 x 6500 mm FPP</td>
</tr>
<tr>
<td><strong>Diesel Generator</strong></td>
<td>3 x 750 kW</td>
</tr>
<tr>
<td><strong>Em'cy Diesel Generator</strong></td>
<td>1 x 150 kW</td>
</tr>
</tbody>
</table>

**Main Dimensions**
- **LOA**: 230.00 m
- **BP**: 223.70 m
- **B (molded)**: 38.00 m
- **D (molded)**: 17.50 m
- **Draught (design)**: 11.50 m
- **Draught (scantling)**: 12.00 m

**Tonnage**
- **DWT (at design)**: 74 000 t
- **DWT (at scantling)**: 78 000 t
- **GRT (app)**: 45 300
- **NT (app)**: 21 650

**Complement**
The accommodation area is arranged for twenty-eight (28) crews, one (1) owner, one (1) pilot and six (6) suites with separate bedrooms and additional three (3) cabins for pilot, owner and Suez crew are provided.

Lifesaving equipment is arranged for thirty-six (36) people.

**SCOPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
- No References Yet
While the hull form and propulsion parameters optimized to perfection and
the steel material optimized for minimum weight this project’s design is
based on single two-stroke engine, fixed pitch highly efficient propeller,
nine pieces of cargo holds, Grab Discharge class notation, compliance
with CSR and double skinned holds and bunker tanks. These sophisticated
design properties enables building of a single screw, single deck ship able
to make trade at worldwide level for carriage of cargoes such as coal, ore,
grain, etc and heavy cargoes.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Compliance with IACS CSR Rules
180 000 DWT BULK CARRIER

**SPECS**

### Capacities

<table>
<thead>
<tr>
<th>Cargo</th>
<th>196 515 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Ballast</td>
<td>60 070 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>4 465 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>260 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>630 m³</td>
</tr>
</tbody>
</table>

### Speed Consumption/Range

- **Design speed**: 14.5 knots
- **Consumption**: 68.0 t/day
- **Cruising range**: 20 000 nm

### Machinery Main Components

- **Main Engine**: 1 x 18 660 kW
- **Propeller**: 1 x 8 000 mm FPP
- **Diesel Generator**: 3 x 970 kW
- **Em’cy Diesel Generator**: 1 x 150 kW

### Complement

The accommodation area is arranged for thirty (30) crews with pilot cabin, owner cabin and Suez crew cabin. Twenty two (22) single berth cabins for crew, two (2) single berth cabins for junior officers, six (6) suites (three different types) with separate bedrooms for upper rank officers are fitted. Lifesaving equipment is arranged for thirty two (32) people.

### Main Dimensions

- \( L_{oa} \): 289.00 m
- \( L_{bp} \): 280.50 m
- \( B \) (molded): 45.00 m
- \( D \) (molded): 24.80 m
- **Draught (design)**: 16.10 m
- **Draught (scantling)**: 18.25 m

### Tonnage

- **DWT (at design)**: 155 000 t
- **DWT (at scantling)**: 181 000 t

### SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

### REFERENCES

- TBN (SEDEF NB158)
CONTAINER SHIPS
1900 TEU CONTAINER SHIP

The vessel is designed as a single screw double skinned, gearless container ship for unrestricted navigation and service. She is capable to carry containers in box shaped holds and strengthened with continuous double bottom and double side hull construction. Hull structure is analysed by FEM tools for safety, weight optimization and vibration. The hull form, optimized with CFD analysis, is designed for minimum resistance, minimum fuel consumption at economic speed. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Fast feeder
1900 TEU CONTAINER SHIP

SPECS

Capacities
- Cargo: 35,600 m³
- Water Ballast: 12,100 m³
- HFO: 2,050 m³
- MDO: 170 m³
- Fresh Water: 215 m³

Speed Consumption/Range
- Design speed: 19.5 knots
- Consumption: 49.0 t/day
- Cruising range: 17,500 nm

Machinery
- Main Engine: 1 x 13,280 kW
- Propeller: 1 x 5,900 mm FPP
- Diesel Generator: 3 x 740 kW
- Em’cy Diesel Generator: 1 x 300 kW

Main Components
- LOA: 182.85 m
- LBP: 171.00 m
- B (molded): 28.00 m
- D (molded): 16.10 m
- Draught (design): 10.00 m
- Draught (scantling): 11.00 m

Tonnage
- DWT (at design): 22,600 t
- DWT (at scantling): 26,810 t
- GRT (app): 21,090
- NT (app): 8,600

Complement
- The accommodation area is arranged for eighteen (18) crews, one (1) owner and one (1) pilot. Fourteen (14) single berth cabins, four (4) suits with separate bedrooms and two (2) cabins for pilot and owner are provided.
- Lifesaving equipment is arranged for twenty (20) people.

SCOPE OF SERVICES
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES
- CAFER DEDE
- İBRAHIM DEDE
- KAAN KALKAVAN
- MUKADDES KALKAVAN
- MUSTAFA DAYI
- NEVZAT KALKAVAN
The vessel is designed as a single screw double skinned container ship for unrestricted navigation and service. She is capable to carry containers in box shaped holds and strengthened with continuous double bottom and double side hull construction. Hull structure is analysed by FEM tools for safety, weight optimization and vibration. The hull form, optimized with CFD analysis, is designed for minimum resistance, minimum fuel consumption at economical speed. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Fast feeder
### 2500 TEU CONTAINER SHIP

#### SPECS

**Capacities**
- Cargo: 45,257 m³
- Water Ballast: 14,260 m³
- HFO: 3,645 m³
- MDO: 187 m³
- Fresh Water: 197 m³

**Speed Consumption/Range**
- Design speed: 19.0 knots
- Consumption: 61.0 t/day
- Cruising range: 24,000 nm

**Machinery Main Components**
- Main Engine: 1 x 16,662 kW
- Propeller: 1 x 6,750 mm FPP
- Diesel Generator: 4 x 1,215 kW
- Em’cy Diesel Generator: 1 x 150 kW

**Complement**
The accommodation area is arranged for twenty one (21) crews, one (1) owner and one (1) pilot. Seventeen (17) single berth cabins, four (4) suits with separate bedrooms and two (2) cabins for pilot and owner are provided.

Lifesaving equipment is arranged for twenty three (23) people.

**Main Dimensions**
- LOA: 197.60 m
- LBP: 182.25 m
- B (molded): 30.20 m
- D (molded): 17.00 m
- Draught (design): 11.00 m
- Draught (scantling): 12.00 m

**Tonnage**
- DWT (at design): 31,370 t
- DWT (at scantling): 36,300 t

**SCOPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
- No References Yet
While the hull form and propulsion parameters optimized to perfection and the steel material optimized for minimum weight this project’s design is based on single four-stroke engine, controllable pitch highly efficient propeller, three (3) cargo holds (two of them box-shaped), two (2) pieces of 45 t cargo cranes, 25 t/m² tank-top load, “Heavy Cargo” class notation, allowance to carry dangerous goods and double skinned holds and bunker tanks. These sophisticated design properties provides building of a single screw, single deck ship able to make trade at worldwide level for carriage of general cargoes, timber, paper, bulk cargoes such as coal, grain, steel coils, dangerous cargoes and container cargoes in holds, on main deck and on hatch covers.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
6500 DWT MULTIPURPOSE CARGO SHIP

SPECS

Capacities
- Cargo: 9,350 m³
- Water Ballast: 3,000 m³
- HFO: 735 m³
- MDO: 114 m³
- Fresh Water: 100 m³

Speed Consumption/Range
- Design speed: 16.5 knots
- Consumption: 16.5 t/day
- Cruising range: 14,500 nm

Machinery
Main Components
- Main Engine: 1 x 4,500 kW
- Propeller: 1 x 4,800 mm FPP
- Diesel Generator: 3 x 450 kW
- Em’cy Diesel Generator: 1 x 99 kW
- Shaft Generator: 1 x 1,300 kW

Complement
The accommodation area is arranged for twenty three (23) crews. Fourteen (14) single berth cabins, two (2) two berth cabins, three (3) suits with separate bedrooms and additional two (2) cabins for pilot and owner are provided.

Lifesaving equipment is arranged for twenty four (24) people.

Main Dimensions
- LOA: 120.50 m
- LWL: 112.95 m
- B (molded): 18.80 m
- D (molded): 9.00 m
- Draught (design): 6.50 m
- Draught (scantling): 6.80 m

Tonnage
- DWT (at design): 6,500 t
- DWT (at scantling): 7,000 t

SCOPE OF SERVICES
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES
- No References Yet
25000 DWT
MULTIPURPOSE CARGO SHIP

While the hull form and propulsion parameters optimized to perfection and the steel material optimized for minimum weight this projects design is based on single two-stroke engine, controllable pitch highly efficient propeller, three (3) cargo holds (two of them box-shaped), two (2) pieces of 45t/30 m and one (1) piece of 45t/16 m cargo cranes, 25t/m² tank-top load, “Heavy Cargo” class notation, allowance to carry dangerous goods and double skinned holds and bunker tanks. These sophisticated design properties provides building of a single screw, single deck ship able to make trade at worldwide level for carriage of general cargoes, timber, paper, bulk cargoes such as coal, grain, steel coils, dangerous cargoes and container cargoes in holds, on main deck and on hatch covers.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
25000 DWT MULTIPURPOSE CARGO SHIP

SPECS

Capacities
- Cargo: 33 000 m³
- Water Ballast: 12 000 m³
- HFO: 2 500 m³
- MDO: 114 m³
- Fresh Water: 110 m³

Speed Consumption/Range
- Design speed: 18.0 knots
- Consumption: 42.7 t/day
- Cruising range: 19 000 nm

Machinery
Main Components
- Main Engine: 1 x 12 000 kW
- Propeller: 1 x 6 700 mm CPP
- Diesel Generator: 3 x 1 000 kW
- Em’cy Diesel Generator: 1 x 150 kW

Main Dimensions
- LOA: 180.50 m
- LBP: 170.20 m
- B (molded): 25.60 m
- D (molded): 14.50 m
- Draught (design): 10.00 m
- Draught (scantling): 10.40 m

Tonnage
- DWT (at design): 25 500 t
- DWT (at scantling): 26 650 t

SCOPE OF SERVICES
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES
- No References Yet

The accommodation area is arranged for twenty four (24) crews, one (1) pilot and one (1) owner. Nineteen (19) single berth cabins, two (2) two berth cabins, three (3) suits with separate bedrooms and additional two (2) cabins for pilot and owner are provided. Lifesaving equipment is arranged for twenty eight (28) people.
The vessel is designed as a single screw, double decked and ice strengthened oil product and chemical tanker for unrestricted navigation and service. She is capable to carry a large range of liquid IMO II & III type cargoes (acc.to IBC Code), petrochemical solvents, clean, dirty products, lube oils, mineral, vegetable oils with specific gravity up to 1.54 t/m³ in twelve pieces of coated cargo tanks and two cylindrical slop tanks on deck. No structural element faces into the cargo tanks while one deep-well pump with complete segregation for each cargo tank and one vapour return line are provided. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.
1700 DWT OILPRODUCT & CHEMICAL TANKER

**SPECS**

### Capacities

- **Cargo**: 1,976 m$^3$
- **Water Ballast**: 1,620 m$^3$
- **MDO**: 184 m$^3$
- **Fresh Water**: 44 m$^3$

### Speed Consumption/Range

- **Design speed**: 12.0 knots
- **Consumption**: 7.5 t/day
- **Cruising range**: 6,000 nm

### Machinery Main Components

- **Main Engine**: 1 x 2,040 kW
- **Propeller**: 1 x 2,850 mm dia CPP
- **Diesel Generator**: 2 x 220 kW
- **Em’cy Diesel Generator**: 1 x 150 kW
- **Shaft Generator**: 1 x 540 kW

### Complement

- The accommodation area is arranged for nine (9) crews. Totally, eleven (11) single berth cabins, one (1) of them with separate bedroom. One (1) owner and one (1) charter rooms are provided.
- Lifesaving equipment is arranged for twelve (12) people.

### Main Dimensions

- \( L_{OA} \): 77.20 m
- \( L_{BP} \): 72.25 m
- \( B \) (molded): 13.40 m
- \( D \) (molded): 8.35 m
- **Draught (design)**: 5.00 m
- **Draught (scantling)**: 5.00 m

### Tonnage

- **DWT (at design)**: 2,025 t
- **DWT (at scantling)**: 2,025 t
- **GRT (app)**: 2,195
- **NT (app)**: 660

### SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

### REFERENCES

ORASILA
2600 DWT
OIL PRODUCT & CHEMICAL TANKER

The vessel is designed as ice-strenghtened, single decked, twin-screw motor ship with double bottom and double sides for unrestricted navigation and service. She is capable to carry a large range of liquid IMO II/III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil mineral/vegetable oils in epoxy painted cargo and slop tanks, up to 1.54 t/m³ specific gravity. Hull structure is analysed by FEM tools for safety and weight optimization. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS
- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
- Easy maintenance and overhauling
- Enhanced visibility with special wheelhouse design
**2600 DWT OILPRODUCT & CHEMICAL TANKER**

**SPECS**

### Capacities
- **Cargo**: 2,640 m³
- **Water Ballast**: 1,065 m³
- **DO**: 110 m³
- **Fresh Water**: 45 m³

### Speed Consumption/Range
- **Design speed**: 12.5 knots
- **Consumption**: 5.3 t/day
- **Cruising range**: 4,750 nm

### Machinery Main Components
- **Main Engine**: 2 x 577 kW
- **Propeller**: 2 x 2,100 mm FPP
- **Diesel Generator**: 3 x 270 kW
- **Em’cy Diesel Generator**: 1 x 99 kW

### Complement
- The accommodation area is arranged for eleven (11) crew members. Nine (9) single berth cabins, two (2) suites with separate bedrooms are provided.
- Lifesaving equipment is arranged for twelve (12) people.

### Main Dimensions
- **L_Disp**: 72.62 m
- **L (molded)**: 66.67 m
- **B (molded)**: 13.40 m
- **D (molded)**: 6.40 m
- **Draught (design)**: 4.80 m
- **Draught (scantling)**: 5.20 m

### Tonnage
- **DWT (at design)**: 2,000 t
- **DWT (at scantling)**: 2,675 t
- **GRT (app)**: 1,760
- **NT (app)**: 700

### SCOPE OF SERVICES
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

### REFERENCES
- **ELBA**
- **GAZPROMNEFT NORD-WEST**
The vessel is designed as ice-strengthened, single decked twin screw motor ship with double bottom and double skin with coated cargo tanks. She is capable to carry a large range of liquid IMO II, III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil mineral/vegetable oils in epoxy painted cargo tanks, which is gravity up to 1.35 t/m² at 85 °C. Hull structure is analysed by FEM tools for safety and weight optimization and hull form is designed for minimum resistance; overall design provides an environmentally friendly, cost-effective, reliable and flexible unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
- Easy maintenance and overhauling
2850 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

**Capacities**

<table>
<thead>
<tr>
<th>Cargo</th>
<th>3,070 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Ballast</td>
<td>1,300 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>150 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>85 m³</td>
</tr>
</tbody>
</table>

**Speed Consumption/Range**

- Design speed: 11.0 knots
- Consumption: 5.5 t/day
- Cruising range: 4,500 nm

**Machinery Main Components**

- Main Engine: 2 x 746 kW
- Propeller: 2 x 2,100 mm FPP
- Diesel Generator: 2 x 280 kW
- Em’cy Diesel Generator: 1 x 150 kW

**Complement**

The accommodation area is arranged for eight (8) crews. 8 single berth cabins with separate private facilities are provided.

Lifesaving equipment is arranged for ten (10) people.

**Main Dimensions**

- $L_{OA}$: 82.30 m
- $L_{BP}$: 78.80 m
- $B$ (molded): 12.50 m
- $D$ (molded): 6.10 m
- Draught (design): 4.70 m
- Draught (scantling): 4.75 m

**Tonnage**

- DWT (at design): 2,745 t
- DWT (at scantling): 2,810 t
- GRT (app): 1,860
- NT (app): 825

**SCHEMA OF SERVICES**

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**

- GAZPROMNEFT ZUID WEST
3500 DWT
OIL PRODUCT & CHEMICAL TANKER

The vessel is designed as ice-strenghtened, single decked, single screw motor ship with double bottom and double sides for unrestricted navigation and service, and capable to carry a large range of liquid IMO II, III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil mineral/vegetable oils in epoxy painted cargo and slop tanks, which is gravity up to 1.54 t/m³. Hull structure is analysed by FEM tools for safety and weight optimization and no structural elements face into the cargo tanks. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
3500 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capacities

- Cargo: 4 400 m³
- Water Ballast: 1 475 m³
- HFO: 190 m³
- MDO: 30 m³
- Fresh Water: 60 m³

Speed Consumption/Range

- Design speed: 13.0 knots
- Consumption: 6.8 t/day
- Cruising range: 7 200 nm

Machinery

Main Components

- Main Engine: 1 x 1 850 kW
- Propeller: 1 x 3 500 mm dia CPP
- Diesel Generator: 3 x 300 kW
- Em'cy Diesel Generator: 1 x 100 kW

Complement

The accommodation area is arranged for seventeen (17) personnel and a pilot. Thirteen (13) single berth cabins, one (1) cabin with two (2) bunk beds, two (2) suits with separate bedrooms and one (1) pilot room are provided.

Lifesaving equipment is arranged for twenty (20) people.

Main Dimensions

- $L_{oa}$: 92.86 m
- $L_{bp}$: 86.65 m
- $B$ (molded): 14.10 m
- $D$ (molded): 7.20 m
- Draught (design): 5.50 m
- Draught (scantling): 5.70 m

Tonnage

- DWT (at design): 3 250 t
- DWT (at scantling): 3 500 t
- GRT (app): 2 600
- NT (app): 1 100

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- ALEV KAMAN
- ORAHOPE
- SOFE THERESA
- ATLANTIS ARMONA
- SUSANNE THERESA
- RIKKE THERESA
- ATLANTIS ALDABRA
- BROWIG BORA
- PALLAS GLORY
- ATLANTIS ALVARADO

www.deltamine.com.tr | 53
The vessel is designed as ice-strengthened, single decked, single screw motor ship with double bottom and double sides for unrestricted navigation and service, and capable to carry a large range of liquid IMO II, III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil mineral/vegetable oils in epoxy painted cargo and slop tanks, which is gravity up to 1.54 t/m³. Hull structure is analysed by FEM tools for safety and weight optimization and no structural elements face into the cargo tanks. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
**3500 DWT OILPRODUCT & CHEMICAL TANKER**

**SPECS**

**Capabilities**
- Cargo: 4280 m³
- Water Ballast: 1625 m³
- HFO: 200 m³
- MDO: 47 m³
- Fresh Water: 65 m³

**Speed Consumption/Range**
- Design speed: 13.0 knots
- Consumption: 7.2 t/day
- Cruising range: 7500 nm

**Main Dimensions**
- \( L_{oa} \): 93.11 m
- \( L_{op} \): 86.65 m
- \( B \) (molded): 14.50 m
- \( D \) (molded): 7.20 m
- Draught (design): 5.50 m
- Draught (scantling): 5.70 m

**Tonnage**
- DWT (at design): 3300 t
- DWT (at scantling): 3550 t
- GRT (app): 2800
- NT (app): 1175

**Machinery Main Components**
- Main Engine: 1 x 1850 kW
- Propeller: 1 x 3500 mm dia CPP
- Diesel Generator: 3 x 300 kW
- Em’cy Diesel Generator: 1 x 100 kW

**Complement**
The accommodation area is arranged for seventeen (17) people and a pilot. Thirteen (13) single berth cabins, one (1) cabin with 2 bunk beds, two (2) suits with separate bedrooms and one (1) pilot room are provided.

Lifesaving equipment is arranged for twenty (20) people.

---

**SCOPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
- SÜDE-S
The vessel is designed as single decked, double hull unit for unrestricted navigation to carry a large range of liquid IMO II, III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil, mineral/vegetable oils in epoxy painted cargo and slop tanks. The propulsion is maintained with twin system working independently and each consisting of a diesel engine, a shaft, a CP propeller and a rudder. Hull structure is analysed by FEM tools for safety and weight optimization and no structural elements face into the cargo tanks. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit. One deep-well pump for each tank and complete segregation for each cargo tank, one vapour return line are installed.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
3500 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capacities

<table>
<thead>
<tr>
<th>Cargo</th>
<th>4 580 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Ballast</td>
<td>1 970 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>170 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>45 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

| Design speed  | 11.6 knots |
| Consumption   | 7.0 t/day   |
| Cruising range| 5 000 nm    |

Machinery Main Components

| Main Engine    | 2 x 960 kW  |
| Propeller      | 1 x 2 600 mm dia CPP |
| Diesel Generator| 1 x 280 kW |
| Em’cy Diesel Generator | 1 x 175 kW |

Complement

The accommodation area is arranged for twelve (12) person- nel. 3 double berth and 9 single berth cabins with separate private facilities are provided.

Main Dimensions

| L₉₀       | 90.00 m |
| L₆₆       | 85.30 m |
| B (molded)| 14.60 m |
| D (molded)| 7.60 m  |
| Draught (design) | 5.30 m |
| Draught (scantling) | 5.40 m |

Tonnage

| DWT (at design) | 3 400 t |
| DWT (at scantling)| 3 550 t |
| GRT (app)       | 2 999   |
| NT (app)        | 1 125   |

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- OW COPENHAGEN
- OW AALBORG
- ALGOMA DARTMOUTH
- RN TAURUS
- CLIPPER BRICCO
- CT WICKLOW
4500 DWT
OIL PRODUCT TANKER

The vessel is single decked, single screw motor ship with double bottom and double sides for shipping in extended European trading area and capable to carry a large range of liquid IMO II, III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil mineral/vegetable oils in fourteen (14) epoxy painted cargo tanks. Hull construction will be withstand the cargo at 0.98 t/m³. The hull form is designed for minimum resistance, overall design provides an environmentally friendly, cost-effective, reliable and flexible unit. Cargo pump room installation, four segregation, one vapour return line are provided.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
**SCOPE OF SERVICES**

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**

- **WHITCHALLENGER**
- **WHITCHAMPION**

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**4500 DWT OILPRODUCT TANKER**

**SPECS**

**Capacities**

- **Cargo**: 5 090 m³
- **Water Ballast**: 2 167 m³
- **MDO**: 244 m³
- **Fresh Water**: 83 m³

**Speed Consumption/Range**

- **Design speed**: 11.5 knots
- **Consumption**: 6.8 t/day
- **Cruising range**: 9 000 nm

**Machinery Main Components**

- **Main Engine**: 1 x 1 850 kW
- **Propeller**: 1 x 2 900 mm dia CPP
- **Diesel Generator**: 2 x 312 kW
- **Em’cy Diesel Generator**: 1 x 80 kW

**Complement**

- 8 single berth and 1 double berth cabins with separate private facilities are provided.

**Main Dimensions**

- **LOA**: 84.95 m
- **LBP**: 80.80 m
- **B (molded)**: 15.00 m
- **D (molded)**: 8.60 m
- **Draught (design)**: 6.30 m
- **Draught (scantling)**: 6.30 m

**Tonnage (Approx)**

- **DWT (at design)**: 4 500 t
- **DWT (at scantling)**: 4 500 t
- **GRT (app)**: 2 960
- **NT (app)**: 1 355
4500 DWT
OIL PRODUCT & CHEMICAL TANKER

The vessel is designed as ice-strengthened, single decked, single screw motor ship with double bottom and double sides for unrestricted navigation and service. She is capable to carry a large range of liquid IMO II, III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil mineral/vegetable oils in epoxy painted cargo and slop tanks, which is gravity up to 1.54 t/m³. Pipe tunnel in double bottom keeps the ballast valves dry. Hull structure is analysed by FEM tools for safety and weight optimization and no structural elements face into the cargo tanks. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit. The ship is fitted with cargo pump room installation and three segregations.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
4500 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capacities

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo</td>
<td>5 445 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>2 266 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>240 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>51 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>77 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

- Design speed: 15.0 knots
- Consumption: 11.3 t/day
- Cruising range: 6 750 nm

Machinery Main Components

- Main Engine: 1 x 3 250 kW
- Propeller: 1 x 3 300 mm dia CPP
- Diesel Generator: 3 x 380 kW
- Em’cy Diesel Generator: 1 x 150 kW

Main Dimensions

- LOA: 106.20 m
- LBP: 100.70 m
- B (molded): 15.60 m
- D (molded): 7.80 m
- Draught (design): 5.90 m
- Draught (scantling): 6.30 m

Tonnage (Approx)

- DWT (at design): 4 460 t
- DWT (at scantling): 4 598 t
- GRT (app): 3 710
- NT (app): 1 495

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- ORAHOLM
- ORASUND
- ORATANK

Complement

- The accommodation area is arranged for ten (10) crews.
- Lifesaving equipment is arranged for twelve (12) people.
4750 DWT
OIL PRODUCT & CHEMICAL TANKER

The vessel is designed as single decked, double bottom and double skined, single screw chemical tanker capable to carry a large range of liquid cargoes IMO II class as well as petroleum products and vegetables oils, gravity upto 1.54 t/m³, in ten (10) cargo and two (2) slop smooth-walled coated cargo tanks. No steel structure facing into the cargo tanks. The hull form is designed for minimum resistance, overall design provides an environmentally friendly, cost-effective, reliable and flexible unit. One deep-well pump for each tank and complete segregation, one vapour return line.

BENEFITS
Low fuel consumption
Compliance with environmental requirements
Low operating cost
Ability to carry various types of cargo
Ability to sail in iced sea areas
4750 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

**Capacities**
- Cargo: 5,480 m³
- Water Ballast: 1,755 m³
- HFO: 245 m³
- MDO: 55 m³
- Fresh Water: 130 m³

**Speed Consumption/Range**
- Design speed: 13.0 knots
- Consumption: 8.1 t/day
- Cruising range: 7,600 nm

**Machinery Main Components**
- Main Engine: 1 x 2,205 kW
- Propeller: 1 x 3,850 mm dia CPP
- Diesel Generator: 3 x 380 kW
- Em’cy Diesel Generator: 1 x 150 kW

**Complement**
Complement is for 14 people, safety Manning 14. The accommodation area is arranged for fourteen (14) personnel. Twelve (12) single berth cabins and two (2) suits with separate bedrooms are provided. Also a pilot cabin is provided. Lifesaving equipment is arranged for eighteen (18) people.

**Main Dimensions**
- **LOA**: 99.84 m
- **LBP**: 94.76 m
- **B (molded)**: 15.60 m
- **D (molded)**: 7.60 m
- **Draught (design)**: 5.70 m
- **Draught (scantling)**: 6.10 m

**Tonnage (Approx)**
- **DWT (at design)**: 4,330 t
- **DWT (at scantling)**: 4,865 t
- **GRT (app)**: 3,480
- **NT (app)**: 1,500

**SCOPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
- VARKAN MARMARA
4850 DWT
OIL PRODUCT & CHEMICAL TANKER

Single decked, single screw motor ship is designed with double bottom, double skin and coated cargo tanks. No steel structure facing into the cargo tanks. The hull form is designed for minimum resistance, overall design provides an environmentally friendly, cost-effective, reliable and flexible unit. One deep-well pump tank and complete segregation for each cargo tank and one vapour return line are provided.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
4850 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capacities
- Cargo: 5,750 m³
- Water Ballast: 1,950 m³
- HFO: 205 m³
- MDO: 60 m³
- Fresh Water: 80 m³

Speed Consumption/Range
- Design speed: 14.0 knots
- Consumption: 8.8 t/day
- Cruising range: 8,700 nm

Machinery
Main Components
- Main Engine: 1 x 2,400 kW
- Propeller: 1 x 3,500 mm dia CPP
- Diesel Generator: 3 x 400 kW
- Em’cy Diesel Generator: 1 x 99 kW

Complement
The accommodation area is to be arranged for sixteen (16) personnel.

Main Dimensions
- \( L_{DA} = 102.90 \text{ m} \)
- \( L_{BP} = 98.15 \text{ m} \)
- \( B \) (molded): 15.60 m
- \( D \) (molded): 7.60 m
- Draught (design): 5.80 m
- Draught (scantling): 6.00 m

Tonnage (Approx)
- DWT (at design): 4,550 t
- DWT (at scantling): 4,835 t
- GRT (app): 3,400
- NT (app): 1,530

SCOPE OF SERVICES
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES
- MAR ISA
- MAR MARIA
- PAN AGILITY
5000 DWT
OIL PRODUCT & CHEMICAL TANKER

The vessel is designed as ice-strengthened, single decked, single screw motor ship with double bottom and double sides for unrestricted navigation and service. She is capable of carrying IMO II chemical cargoes, petrochemical solvents, clean, dirty products, lube oils, mineral, vegetable oils with specific gravity up to 1.54 t/m³ in epoxy coated, smooth walled 10 pieces of cargo and two cylindrical slop tanks on deck. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
5000 DWT OILPRODUCT & CHEMICAL TANKER

**SPECS**

**Capacities**
- Cargo: 5,470 m³
- Water Ballast: 1,750 m³
- HFO: 250 m³
- MDO: 55 m³
- Fresh Water: 320 m³

**Speed Consumption/Range**
- Design speed: 13.0 knots
- Consumption: 8.0 t/day
- Cruising range: 8,320 nm

**Machinery Main Components**
- Main Engine: 1 x 1,080 kW
- Propeller: 2 x 2,600 mm dia CPP
- Diesel Generator: 1 x 250 kW
- Em’cy Diesel Generator: 1 x 154 kW

**Complement**
Complement is for 14 people, safety manning 14. The accommodation area is arranged for fourteen (14) personnel. Twelve (12) single berth cabins and two (2) suits with separate bedrooms are provided. Also a pilot cabin is provided. Lifesaving equipment is arranged for eighteen (18) people.

**Main Dimensions**
- $L_{oa}$: 99.84 m
- $L_{op}$: 94.76 m
- $B$ (molded): 15.60 m
- $D$ (molded): 7.60 m
- Draught (design): 5.70 m
- Draught (scantling): 6.10 m

**Tonnage (Approx)**
- DWT (at design): 4,550 t
- DWT (at scantling): 5,000 t
- GRT (app): 3,300
- NT (app): 1,500

**SCOPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
- CIMIL
- ANZER
5700 DWT
OIL PRODUCT & CHEMICAL TANKER

The vessel is designed as single screw, oil product chemical tanker with cargo tanks made out of duplex stainless steel. Vessel is designed for unrestricted navigation and service, being capable to carry a large range of liquid IMO II type cargoes (acc. to IBC Code), oil products and aggressive acid cargoes such as sulfuric and phosphoric acid, complex cargoes like molasses, methanol and wine with specific gravity up to 2.00 t/m³. Hull structure is analysed by FEM tools for safety and weight optimization. No structural elements face into the cargo tanks. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit. The ship is fitted with cargo pump room installation and three segregations.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo (e.g. aggressive acids)
- Ability to sail in iced sea areas
- Stainless steel cargo tanks with high mechanical properties
5700 DWT OILPRODUCT 
& CHEMICAL TANKER

SPECS

Capacities

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo</td>
<td>6 585 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>2 390 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>252 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>63 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>80 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

- Design speed: 13.0 knots
- Consumption: 10.6 t/day
- Cruising range: 6 100 nm

Machinery Main Components

- Main Engine: 1 x 3 000 kW
- Propeller: 1 x 3 950 mm dia CPP
- Diesel Generator: 3 x 450 kW
- Em’cy Diesel Generator: 1 x 150 kW

Complement

The accommodation area is to be arranged for 18 personnel. Fifteen (15) single berth cabins and three (3) suits with separate bedrooms are provided.

Lifesaving equipment is to be arranged for eighteen (18) persons.

Main Dimensions

- LOA: 105.50 m
- LWL: 99.35 m
- B (molded): 16.80 m
- D (molded): 7.40 m
- Draught (design): 6.10 m
- Draught (scantling): 6.30 m

Tonnage (Approx)

- DWT (at design): 5 340 t
- DWT (at scantling): 5 620 t
- GRT (app): 3 890
- NT (app): 2 320

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- AVSE S
- DENIZ S
5800 DWT OIL PRODUCT & CHEMICAL TANKER

The vessel is designed as single screw, oil product chemical tanker for unrestricted navigation and service, being capable to carry a large range of liquid IMO II type cargoes (acc. to IBC Code) and oil products and withstands cargoes with specific gravity up to 1.54 t/m³. Cargo area is divided into ten (10) cargo tanks by means of oil-tight corrugated transverse bulkheads and a longitudinal bulkhead in CL. The vessel is also provided with slop tank located in cargo area. No structural elements face into the cargo tanks. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit. The ship is fitted with cargo pump room installation and complete segregations.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
5800 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

**Capacities**
- Cargo: 6 585 m³
- Water Ballast: 2 333 m³
- HFO: 254 m³
- MDO: 65 m³
- Fresh Water: 80 m³

**Speed Consumption/Range**
- Design speed: 13.5 knots
- Consumption: 10.0 t/day
- Cruising range: 7 000 nm

**Machinery Main Components**
- Main Engine: 1 x 2 720 kW
- Propeller: 1 x 3 900 mm dia CPP
- Diesel Generator: 3 x 370 kW
- Em’cy Diesel Generator: 1 x 100 kW

**Complement**
- The accommodation area is to be arranged for 18 personnel. Fifteen (15) single berth cabins and three (3) suits with separate bedrooms are provided.
- Lifesaving equipment is to be arranged for eighteen (18) persons.

**Main Dimensions**
- **LOA**: 105.50 m
- **LBP**: 99.35 m
- **B (molded)**: 16.80 m
- **D (molded)**: 7.40 m
- **Draught (design)**: 6.20 m
- **Draught (scantling)**: 6.30 m

**Tonnage (Approx)**
- DWT (at design): 5 650 t
- DWT (at scantling): 5 760 t
- GRT (app): 4 000
- NT (app): 1 820

**SCOPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
- ANGIMAR
- TRANS MARMARA
- FS SOLENE
- YM VENUS
- OZ-RF 4
- FS CLARA
- ST PAULINE
- MONTAUK
- YIGIT BEY
- LILAC
- YM EARTH
- NIYAZI-S
- OZDEN-S
- FETEKÖZ
- ASC
- AZRA S
- ERAS
- KARDEMİR
- LS ANNE
- LS JAMIE
- FILYOZ
6400 DWT
OIL PRODUCT &
CHEMICAL TANKER

The vessel is designed as ice-strengthened, single decked, single screw motor ship with double bottom and double sides for unrestricted navigation and service. She is capable to carry a large range of liquid IMO II, III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil mineral/vegetable oils in epoxy painted cargo and slop tanks, which is gravity up to 1.54 t/m³. No structural elements face into the cargo tanks. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
- Enhanced Cargo Carriage Capacity
DELTA MARINE MERCHANT SHIPS DESIGN PORTFOLIO

6400 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capacities

<table>
<thead>
<tr>
<th>Component</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo</td>
<td>7 180 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>2 360 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>320 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>60 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>67 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

- Design speed: 14.0 knots
- Consumption: 10.0 t/day
- Cruising range: 8 600 nm

Machinery

Main Components

- Main Engine: 1 x 2 720 kW
- Propeller: 1 x 3 950 mm dia CPP
- Diesel Generator: 3 x 370 kW
- Em’cy Diesel Generator: 1 x 150 kW

Complement

The accommodation area is arranged for fourteen (14) crews and a pilot. Twelve (12) single berth cabins, two (2) suits with separate bedrooms and one (1) pilot room are provided. Lifesaving equipment is arranged for fifteen (15) people. Safety manning is for fourteen (14) people.

Main Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>L OA</td>
<td>109.00 m</td>
</tr>
<tr>
<td>L BP</td>
<td>102.30 m</td>
</tr>
<tr>
<td>B (molded)</td>
<td>16.80 m</td>
</tr>
<tr>
<td>D (molded)</td>
<td>8.30 m</td>
</tr>
<tr>
<td>Draught (design)</td>
<td>6.20 m</td>
</tr>
<tr>
<td>Draught (scantling)</td>
<td>6.65 m</td>
</tr>
</tbody>
</table>

Tonnage (Approx)

<table>
<thead>
<tr>
<th>Tonnage</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWT (at design)</td>
<td>5 870 t</td>
</tr>
<tr>
<td>DWT (at scantling)</td>
<td>6 400 t</td>
</tr>
<tr>
<td>GRT (app)</td>
<td>4 250</td>
</tr>
<tr>
<td>NT (app)</td>
<td>1 990</td>
</tr>
</tbody>
</table>

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- DEFNE S
- EKIN S
- GAZELA
- GUNGA
- TANA
- YM MERCURY
- YM MARS
- ATLANTIS ALHAMBRA
- ATLANTIS ANDAMAN
- ERRIA V
The vessel is designed as ice-strengthened, single decked, single screw motor ship with double bottom and double sides for unrestricted navigation and service. She is capable to carry a large range of liquid IMO II, III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil mineral/vegetable oils in epoxy painted cargo and slop tanks, which is gravity up to 1.54 t/m³. No structural elements face into the cargo tanks. The ship is fitted with one deep-well pump for each tank, complete segregation and one vapour return line. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
6700 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capacities

| Cargo                      | 7 435 m³ |
| Water Ballast             | 2 550 m³ |
| HFO                       | 350 m³   |
| MDO                       | 100 m³   |
| Fresh Water               | 100 m³   |

Speed Consumption/Range

Design speed 14.0 knots
Consumption 12.9 t/day
Cruising range 8 700 nm

Machinery

Main Components

| Main Engine            | 1 x 3 700 kW |
| Propeller             | 1 x 3 800 mm dia CPP |
| Diesel Generator      | 3 x 400 kW    |
| Em’cy Diesel Generator| 1 x 100 kW    |

Complement

The accommodation area is arranged for nineteen (19) personnel. Ten (10) single berth cabins, two (2) double berth and five (5) suits with separate bedrooms are provided.

Lifesaving equipment is arranged for twenty (20) people.

Main Dimensions

| LOA          | 114.00 m |
| LBP          | 106.00 m |
| B (molded)   | 16.90 m  |
| D (molded)   | 8.40 m   |
| Draught (design) | 6.75 m |
| Draught (scantling) | 6.80 m |

Tonnage (Approx)

| DWT (at design) | 6 525 t |
| DWT (at scantling) | 6 750 t |
| GRT (app)       | 4 335   |
| NT (app)        | 2 060   |

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- MAR ROCIO
- C.P. 38
- ALFATEM
- AMAK SWAN
- STAR 1
- SILVER
- HEINRICH
- PANDA PG
- TESSA PG
7000 DWT OIL PRODUCT & CHEMICAL TANKER

The vessel is designed as ice-strengthened, single decked, single screw motor ship with double bottom and double sides for unrestricted navigation and service. She is capable to carry a large range of liquid IMO II, III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil mineral/vegetable oils with specific gravity up to 1.54 t/m³, in phenolic epoxy coated, smooth walled cargo tanks and slop tanks. Hull structure is analysed by FEM tools for safety and weight optimization and no structural elements face into the cargo tanks. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
7000 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capacities
- Cargo: 8 050 m³
- Water Ballast: 2 800 m³
- HFO: 420 m³
- MDO: 90 m³
- Fresh Water: 50 m³

Speed Consumption/Range
- Design speed: 14.0 knots
- Consumption: 14.1 t/day
- Cruising range: 9 000 nm

Machinery
- Main Engine: 1 x 3 840 kW
- Propeller: 1 x 4 200 mm dia CP
- Diesel Generator: 3 x 400 kW
- Em’cy Diesel Generator: 1 x 100 kW

Main Dimensions
- LOA: 119.10 m
- LBP: 111.60 m
- B (molded): 16.90 m
- D (molded): 8.40 m
- Draught (design): 6.65 m
- Draught (scantling): 6.75 m

Tonnage (Approx)
- DWT (at design): 6 820 t
- DWT (at scantling): 6 975 t
- GRT (app): 4 200
- NT (app): 2 100

SCOPE OF SERVICES
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES
- MARINUS
- BRO GOTHIA
- AMARANT
- PAUL E
- MORINA
- GASCOGNE
- GUILDO
- AMANDA
- BRO GOLIATH
- COVADONGA
- IEVOLI FAST
- PURPLE GEM
- ACACIA
- TREFIN LEADER
- ALGOCANADA
- ALGONOA
- MARDENIZ
- KARDENIZ
- KORMEL
- EMEK S

The accommodation area is arranged for fifteen (15) crews and a pilot. Eleven (11) single berth cabins, two (2) double berth cabins, two (2) suits with separate bedrooms and one (1) double berth owner/pilot room are provided. Lifesaving equipment is arranged for eighteen (18) and safety manning for fifteen (15) people.
The vessel is designed as single decked, twin screw motor ship with double bottom and double skin with coated cargo tanks. Designed for unrestricted navigation and service, the ship is capable to carry a large range of liquid IMO II type cargoes (acc. to IBC Code), vegetable oils, oil products and withstands cargoes with specific gravity up to 1.54 t/m³. Hull structure is analysed by FEM tools for safety, weight optimization and vibration. No steel structure facing into the cargo tanks. The hull form is designed for minimum resistance, overall design provides an environmentally friendly, cost-effective, reliable and flexible unit. One deep-well pump is installed for each tank while complete segregation for each cargo tank is provided with one vapour return line.
DELTA MARINE MERCHANT SHIPS DESIGN PORTFOLIO

CONTAINER BULK CARRIER GENERAL CARGO MULTIPURPOSE TANKER PASSENGER INDUSTRIAL UTILITY

10 000 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capacities

| Cargo                          | 11 335 m³ |
| Water Ballast                 | 4 155 m³  |
| HFO                           | 630 m³    |
| MDO                           | 116 m³    |
| Fresh Water                   | 71 m³     |

Speed Consumption/Range

- Design speed: 14.0 knots
- Consumption: 19.8 t/day
- Cruising range: 9 000 nm

Machinery

Main Components

- Main Engine: 2 x 2 700 kW
- Propeller: 2 x 3 250 mm Azimuth
- Diesel Generator: 1 x 500 kW
- Em’cy Diesel Generator: 1 x 340 kW

Complement

The accommodation area is arranged for nineteen (19) personnel. 9 individual cabins with private facilities, 2 double cabins with private facilities and 4 cabins with bunk-bed are provided.

Main Dimensions

- Length Overall (LOA): 117.00 m
- Length Between Perpendiculars (LBP): 111.60 m
- Breadth (molded): 21.00 m
- Depth (molded): 9.50 m
- Draught (design): 6.50 m
- Draught (scantling): 7.75 m

Tonnage (Approx)

- DWT (at design): 8 025 t
- DWT (at scantling): 10 475 t
- GRT (app): 6 860
- NT (app): 3 420

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- ECO III
- CORK
- CT LONGFORD
- OVIT
The vessel is designed as ice-strengthened, single decked, single screw motor ship with double bottom and double sides for unrestricted navigation and service. She is capable to carry a large range of liquid IMO II, III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil mineral/vegetable oils in twelve (12) epoxy painted cargo and two (2) pcs of slop tanks installed on maindeck with specific gravity up to 1.54 t/m³. Hull structure is analysed by FEM tools for safety, weight optimization and vibration. No structural elements face into the cargo tanks. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
11 000 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

**Capacities**

<table>
<thead>
<tr>
<th>Cargo</th>
<th>12 725 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Ballast</td>
<td>4 400 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>580 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>100 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>90 m³</td>
</tr>
</tbody>
</table>

**Speed Consumption/Range**

- **Design speed**: 15.0 knots
- **Consumption**: 16.0 t/day
- **Cruising range**: 11 000 nm

**Machinery Main Components**

- **Main Engine**: 1 x 4 320 kW
- **Propeller**: 1 x 4 800 mm dia CPP Diesel
- **Generator**: 3 x 600 kW
- **Em’cy Diesel Generator**: 1 x 150 kW

**Complement**

- The accommodation area is arranged for eighteen (18) crews. Eleven (11) single berth cabins, five (5) double berth and two (2) suits with separate bedrooms are provided.
- Lifesaving equipment is arranged for twenty (20) people.

**Main Dimensions**

- **LOA**: 129.50 m
- **LBP**: 122.70 m
- **B (molded)**: 19.80 m
- **D (molded)**: 10.40 m
- **Draught (design)**: 7.85 m
- **Draught (scantling)**: 8.15 m

**Tonnage (Approx)**

- **DWT (at design)**: 10 600 t
- **DWT (at scantling)**: 11 300 t
- **GRT (app)**: 7 315
- **NT (app)**: 3 590

**SCOPE OF SERVICES**

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**

- TARNBRIS
- ATLANTIK MIRACLE
- SAPPHIRE T
- SAKARYA
- DUMLUPINAR
- VARKAN AKDENIZ
The vessel is designed as chemical/oil product tanker being capable to carry a large range of liquid IMO II & III type cargoes (acc. to IBC Code), petrochemical solvents, vegetable oils, with specific gravity up to 1.54 t/m³, in twelve (12) pcs of phenolic epoxy coated, smooth walled cargo tanks and two (2) pcs of slop tanks installed on deck. No structural elements face into the cargo tanks. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo
- Easy maintenance and overhauling
- Efficient propulsion system
12 000 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capacities

<table>
<thead>
<tr>
<th>Type</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo</td>
<td>14 200 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>4 800 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>1 000 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>150 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>100 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

- Design speed: 18.0 knots
- Consumption: 32.0 t/day
- Cruising range: 12 500 nm

Machinery Main Components

- Main Engine: 2 x 4 250 kW
- Propeller: 2 x 4 800 mm CPP
- Diesel Generator: 3 x 600 kW
- Em’cy Diesel Generator: 1 x 125 kW

Complement

The accommodation area is arranged for seventeen (17) personnel and one pilot/owner. Sixteen (16) single berth cabins, two (2) suits with separate bedrooms are provided. A hospital is arranged.

Lifesaving equipment is provided for twenty (20) people. Safety manning is for seventeen (17) people.

Main Dimensions

- \( L_{OA} \) = 144.20 m
- \( L_{BP} \) = 138.65 m
- \( B (molded) \) = 20.00 m
- \( D (molded) \) = 11.00 m
- Draught (design) = 8.00 m
- Draught (scantling) = 8.20 m

Tonnage (Approx)

- DWT (at design): 12 000 t
- DWT (at scantling): 12 500 t

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- No References Yet
12 500 DWT
OIL PRODUCT & CHEMICAL TANKER

The vessel is designed as a single screw, oil product and chemical tanker for unrestricted navigation and service. She is capable to carry a large range of liquid IMO II & III type cargoes (acc.to IBC Code), petrochemical solvents, clean, dirty products, lube oils, mineral, vegetable oils with specific gravity up to 1.54 t/m³ in twelve pieces of epoxy coated cargo tanks and two cylindrical slop tanks on deck. Hull structure is analysed by FEM tools for safety and weight optimization. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS
- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
12 500 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capabilities

<table>
<thead>
<tr>
<th>Cargo</th>
<th>14 730 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Ballast</td>
<td>4 670 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>630 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>90 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>100 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

Design speed 14.8 knots
Consumption 16.6 t/day
Cruising range 10 400 nm

Machinery

Main Components

- Main Engine 1 x 4 500 kW
- Propeller 1 x 4 750 mm dia CPP
- Diesel Generator 3 x 750 kW
- Em’cy Diesel Generator 1 x 165 kW

Complement

The accommodation area is arranged for eighteen (18) crews. Sixteen (16) single berth cabins and two (2) suits with separate bedrooms are provided.

Lifesaving equipment is arranged for twenty (20) people.

Main Dimensions

- LOA 135.60 m
- LBP 127.65 m
- B (molded) 20.60 m
- D (molded) 11.00 m
- Draught (design) 8.20 m
- Draught ( scantling) 8.50 m

Tonnage (Approx)

- DWT (at design) 12 430 t
- DWT (at scantling) 13 215 t
- GRT 8 390
- NT 4 175

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- MIRANDA
- ATLANTIK GLORY
- TBN (SELAH NB57)
The vessel is designed as ice-strengthened, single decked, twin screw motor ship with double bottom and double sides for unrestricted navigation and service. She is capable to carry a large range of liquid IMO II, III chemical cargoes, petrochemical solvents, clean/dirty products, lube oil mineral/vegetable oils in epoxy painted cargo and slop tanks, with specific gravity up to 1.54 t/m³. Hull structure is analysed by FEM tools for safety, weight optimization and vibration. No structural elements face into the cargo tanks. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
- Redundant propulsion system with twin engines
13 500 DWT OILPRODUCT & CHEMICAL TANKER

**SPECS**

### Capacities
- Cargo: 15 266 m³
- Water Ballast: 5 427 m³
- HFO: 769 m³
- MDO: 83 m³
- Fresh Water: 360 m³

### Speed Consumption/Range
- Design speed: 14.0 knots
- Consumption: 20.0 t/day
- Cruising range: 14 000 nm

### Main Dimensions
- LOA: 132.60 m
- LBP: 125.60 m
- B (molded): 21.00 m
- D (molded): 11.00 m
- Draught (design): 7.90 m
- Draught (scantling): 8.40 m

### Tonnage (Approx)
- DWT (at design): 12 500 t
- DWT (at scantling): 13 500 t

### Machinery Main Components
- Main Engine: 2 x 2 720 kW
- Propeller: 2 x 3 900 mm dia CPP
- Diesel Generator: 2 x 400 kW
- Em’cy Diesel Generator: 1 x 180 kW

### Complement
The accommodation area is arranged for nineteen (19) crews and a pilot. Eighteen (18) single berth cabins and two (2) suits with separate bedrooms are provided.

Lifesaving equipment is arranged for twenty (20) people.

### SCOPE OF SERVICES
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

### REFERENCES
- TBN (YARDIMCI NB68)
15 000 DWT
OIL PRODUCT & CHEMICAL TANKER

The ice-classed and single decked ship is equipped with innovative azimuth propulsion system with two units. The ship is designed for unrestricted navigation and service, being capable to carry a large range of liquid IMO II type cargoes (acc. to IBC Code), vegetable oils, oil products and withstands cargoes with specific gravity up to 1.90 t/m³. The hull structure is strengthened with double bottom and double skin. Hull structure is analysed by FEM tools for safety, weight optimization and vibration. No structural elements face into the cargo tanks. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit. One deep-well pump is installed for each tank while complete segregation for each cargo tank is provided with one vapour return line.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
- Innovative propulsion system
- Easy maintenance and overhauling
- State-of-the-art automation system
15 000 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capacities

- Cargo: 18 300 m³
- Water Ballast: 6 265 m³
- HFO: 750 m³
- MDO: 35 m³
- Fresh Water: 100 m³

Speed Consumption/Range

- Design speed: 14.5 knots
- Consumption: 26.4 t/day
- Cruising range: 9 100 nm

Machinery

- Main Engine: 2 x 3 600 kW
- Propeller: 2 x 3 400 mm Rudder Prop.
- Diesel Generator: 1 x 432 kW
- Em’cy Diesel Generator: 1 x 150 kW

Main Dimensions

- LOA: 148.00 m
- LBP: 139.50 m
- B (molded): 21.60 m
- D (molded): 11.30 m
- Draught (design): 8.50 m
- Draught (scantling): 8.60 m

Tonnage

- DWT (at design): 15 300 t
- DWT (at scantling): 15 600 t
- GRT: 10 800
- NT: 5 200

Complement

- The accommodation area is arranged for nineteen (19) crews and a pilot. Eleven (11) single berth cabins, six (6) double berth and two (2) suits with separate bedrooms are provided.
- Lifesaving equipment is arranged for twenty (20) people.

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- FIONIA SWAN
- LS JACOBA
- PULU II
The vessel is designed ice-strengthened, single decked, single screw motor ship with double bottom and double skin with coated cargo tanks. The ship is designed for unrestricted navigation and service, being capable to carry a large range of liquid IMO II type cargoes (acc. to IBC Code), vegetable oils, oil products and withstands cargoes with specific gravity up to 1.54 t/m³. Cargo area is divided into twelve (12) cargo tanks. The vessel is also provided with two (2) independent deck slop tanks located on maindeck. The hull structure is strengthened with double bottom and double skin. Hull structure is analysed by FEM tools for safety, weight optimization and vibration. No structural elements face into the cargo tanks. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
- Easy maintenance and overhauling
16 000 DWT OILPRODUCT & CHEMICAL TANKER

SPECS

Capacities

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo</td>
<td>18 438 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>6 484 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>724 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>114 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>118 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Design speed</td>
<td>14.0 knots</td>
</tr>
<tr>
<td>Consumption</td>
<td>19.2 t/day</td>
</tr>
<tr>
<td>Cruising range</td>
<td>11 600 nm</td>
</tr>
</tbody>
</table>

Machinery

Main Components

- Main Engine: 1 x 5 400 kW
- Propeller: 1 x 4 800 mm CPP
- Diesel Generator: 3 x 590 kW
- Em’cy Diesel Generator: 1 x 150 kW

Complement

The accommodation area is arranged for nineteen (19) crews and a pilot. Seventeen (17) single berth cabins and two (2) suits with separate bedrooms are provided.

Lifesaving equipment is arranged for twenty (20) people.

Main Dimensions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LOA</td>
<td>148.00 m</td>
</tr>
<tr>
<td>LBP</td>
<td>139.50 m</td>
</tr>
<tr>
<td>B (molded)</td>
<td>21.60 m</td>
</tr>
<tr>
<td>D (molded)</td>
<td>11.30 m</td>
</tr>
<tr>
<td>Draught (design)</td>
<td>8.50 m</td>
</tr>
<tr>
<td>Draught (scantling)</td>
<td>8.60 m</td>
</tr>
</tbody>
</table>

Tonnage

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DWT (at design)</td>
<td>15 710 t</td>
</tr>
<tr>
<td>DWT (at scantling)</td>
<td>16 000 t</td>
</tr>
<tr>
<td>GRT</td>
<td>10 900</td>
</tr>
<tr>
<td>NT</td>
<td>5 260</td>
</tr>
</tbody>
</table>

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- YM JUPITER
- YM SATURN
20 000 DWT
OIL PRODUCT &
CHEMICAL TANKER

The vessel is designed as single screw, oil product chemical tanker for unrestricted navigation and service, being capable to carry a large range of liquid IMO II type cargoes (acc. to IBC Code) and oil products and withstands cargoes with specific gravity up to 1.54 t/m³ at 66 C. Ballast pipe tunnel is arranged at centre of ballast tanks. The hull form is designed for minimum resistance and overall design provides an environmentally friendly, cost-effective, reliable and flexible unit. One deep-well pump and complete segregation for each cargo tank and one vapour return line are provided.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
20 000 DWT OILPRODUCT & CHEMICAL TANKER

**SPECS**

<table>
<thead>
<tr>
<th>Capacities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo</td>
<td>22 150 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>8 250 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>900 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>180 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>140 m³</td>
</tr>
</tbody>
</table>

**Speed Consumption/Range**

- Design speed: 14.0 knots
- Consumption: 20.8 t/day
- Cruising range: 12 500 nm

**Machinery: Main Components**

- Main Engine: 1 x 5 920 kW
- Propeller: 1 x 4 250 mm dia CPP
- Diesel Generator: 3 x 750 kW
- Em’cy Diesel Generator: 1 x 165 kW

**Complement**

The accommodation area is arranged for eighteen (18) personnel. Eleven (11) single berth cabins, six (6) double berth and two (2) suits with separate bedrooms are provided.

Lifesaving equipment is arranged for nineteen (19) people.

**Main Dimensions**

<table>
<thead>
<tr>
<th>Main Engine</th>
<th>149.95 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOA</td>
<td>144.80 m</td>
</tr>
<tr>
<td>B (molded)</td>
<td>23.20 m</td>
</tr>
<tr>
<td>D (molded)</td>
<td>13.05 m</td>
</tr>
<tr>
<td>Draught (design)</td>
<td>9.20 m</td>
</tr>
<tr>
<td>Draught (scantling)</td>
<td>9.95 m</td>
</tr>
</tbody>
</table>

**Tonnage**

- DWT (at design): 17 800 t
- DWT (at scantling): 20 000 t
- GRT: 13 000
- NT: 6 350

**SCOPE OF SERVICES**

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**

- LETIZIA EFFE
- MALMO
- MADEIRO
- ECE NUR K
- GUNES K
- ICDAS-09
- ICDAS-11
- SOLANDO
- SOLERO
- TBIN (YARDIMCI NB60)
The vessel is designed as twin screw, oil product and chemical tanker for unrestricted navigation and service, being capable to carry a large range of liquid IMO II & III type cargoes (acc. to IBC Code), petrochemical solvents, clean & dirty oil products, lubrication oils, mineral and vegetable oils, etc. and withstands cargoes with specific gravity up to 1.025 t/m³. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost effective, reliable and flexible unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
- Stainless steel cargo tanks with high mechanical properties
**DELTA MARINE MERCHANT SHIPS DESIGN PORTFOLIO**

**CONTAINER** | **BULK CARRIER** | **GENERAL CARGO** | **MULTIPURPOSE** | **TANKER** | **PASSENGER** | **INDUSTRIAL** | **UTILITY**
---|---|---|---|---|---|---|---

---

**29 000 DWT OILPRODUCT & CHEMICAL TANKER**

**SPECS**

**Capacities**
- Cargo: 32 000 m³
- Water Ballast: 12 500 m³
- HFO: 750 m³
- MDO: 90 m³
- Fresh Water: 125 m³

**Speed Consumption/Range**
- Design speed: 14.0 knots
- Consumption: 21.4 t/day
- Cruising range: 10 000 nm

**Main Dimensions**
- \( L_{oa} \): 162.50 m
- \( L_{op} \): 151.60 m
- \( B \) (molded): 27.50 m
- \( D \) (molded): 15.00 m
- Draught (design): 9.50 m
- Draught (scantling): 10.80 m

**Machinery**

**Main Components**
- Main Engine: 2 x 2 925 kW
- Propeller: 2 x 4 200 mm dia CPP
- Diesel Generator: 3 x 750 kW
- Em’cy Diesel Generator: 1 x 200 kW

**Complement**
- The accommodation area is arranged for twenty (20) crews and one pilot/owner.
- Sixteen (16) single berth cabins, four (4) suits with separate bedrooms are provided together with a Suez Room with bunks for six (6) people.
- Lifesaving equipment is arranged for twenty five (25) people.

**Tonnage**
- DWT (at design): 24 000 t
- DWT (at scantling): 29 000 t
- GRT: 17 300

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**SCOPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

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**REFERENCES**
- No References Yet

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www.deltamarine.com.tr
The vessel is designed as a double screw, stainless steel cargo tanks, oil product & chemical tanker for unrestricted navigation and service and being capable to carry specially petrochemical solvents, clean, dirty products, IMO II chemical cargoes (acc. to IBC code), lube oils, mineral, and vegetable oils with specific gravity up to 1.54 t/m³ at 66°C. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. CFD Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- Ability to sail in iced sea areas
- Stainless steel cargo tanks with high mechanical properties
**DELTA MARINE MERCHANT SHIPS DESIGN PORTFOLIO**

**SCOPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
- No References Yet

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**39 000 DWT OILPRODUCT & CHEMICAL TANKER**

**SPECS**

**Capacities**
- Cargo: 40 500 m³
- Water Ballast: 14 300 m³
- HFO: 1 100 m³
- MDO: 180 m³
- Fresh Water: 300 m³

**Speed Consumption/Range**
- Design speed: 14.0 knots
- Consumption: 18.4 t/day
- Cruising range: 18 000 nm

**Main Dimensions**
- LOA: 179.00 m
- LBP: 167.00 m
- B (molded): 30.40 m
- D (molded): 15.00 m
- Draught (design): 9.50 m
- Draught (scantling): 10.80 m

**Tonnage**
- DWT (at design): 28 000 t
- DWT (at scantling): 39 000 t
- GRT: 21 200
- NT: 11 850

**Machinery Main Components**
- Main Engine: 2 x 3 200 kW
- Propeller: 2 x 6 400 mm dia CPP
- Diesel Generator: 2 x 800 kW
- Em’cy Diesel Generator: 1 x 200 kW

**Complement**
- Complement is for 21 people. The accommodation area is arranged for nineteen (19) people, pilot and Suez Crew.
40 000 DWT OIL PRODUCT TANKER

The vessel is designed as single decked, single screw motor ship with double bottom and double sides for unrestricted navigation and service. She is capable to carry a large range of petroleum liquid cargoes, crude oil, clean/dirty products in cargo and slop tanks, with specific gravity up to 1.025 t/m³. Hull structure is analysed by FEM tools for safety, weight optimization and vibration. No structural elements face into the cargo tanks except deck. Overall design provides an environment-friendly; cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Operational flexibility
40 000 DWT OILPRODUCT TANKER

SPECS

Capacities

| Cargo          | 40 782 m³ |
| Water Ballast  | 18 636 m³ |
| HFO           | 1 161 m³  |
| MDO           | 129 m³    |
| Fresh Water   | 223 m³    |

Speed Consumption/Range

- Design speed: 14.5 knots
- Consumption: 26.7 t/day
- Cruising range: 13 000 nm

Machinery

- Main Engine: 1 x 7 650 kW
- Propeller: Keyless FPP
- Diesel Generator: 3 x 660 kW
- Em’cy Diesel Generator: 1 x 300 kW

Main Dimensions

| LOA         | 176.00 m |
| LBP         | 169.00 m |
| B (molded)  | 32.00 m  |
| D (molded)  | 15.10 m  |
| Draught (design) | 10.00 m |
| Draught (scantling) | 11.20 m |

Tonnage

- DWT (at design): 34 590 t
- DWT (at scantling): 40 111 t
- GRT: 22 950
- NT: 11 740

Complement

The accommodation area is arranged for twenty four (24) crews and a pilot. Twenty four (24) single berth cabins, two (2) double berth and five (5) suits with separate bedrooms are provided.

Lifesaving equipment is arranged for twenty four (24) people.

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

H.İ. KAPTANOĞLU
3500 CBM
ASPHALT TANKER

The vessel is designed as mainly single screw, double side, single bottom in the cargo area, two independent tank group, into cargo holds separated by midship pump room. She is capable to carry bitumen at 180°C with gravity up to 1.04 t/m³, oil products and IMO II type cargoes at 60°C with gravity up to 1.04 t/m³. Two independent cargo tanks each divided into four tanks by corrugated bulkheads are installed on single bottom webs via supporting pads which have sliding and insulating ability. Additionally, tanks are to be supported by anti-rolling, anti-flooding and anti-pitching keys to absorb list, trim, acceleration and buoyancy loads. Two different compatible cargoes can be handled simultaneously. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS
- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- No thermal stress on hull structure
3500 CBM ASPHALT TANKER

SPECS

Capacities

| Cargo      | 3 500 m³ |
| Water Ballast | 1 765 m³ |
| HFO        | 197 m³   |
| MDO        | 60 m³    |
| Fresh Water| 56 m³    |

Speed Consumption/Range

Design speed | 13.0 knots |
Consumption  | 7.0 t/day  |
Cruising range | 7 000 nm |

Machinery

Main Components

| Main Engine          | 1 x 2 040 kW |
| Propeller            | 1 x 3 400 mm FPP |
| Diesel Generator     | 3 x 300 kW |
| Em’cy Diesel Generator| 1 x 99 kW |

Complement

The accommodation area is arranged for eighteen (18) crews (including pilot).

Safety manning is eighteen (18) people.

Main Dimensions

- $L_{ox}$: 97.70 m
- $L_{bp}$: 93.00 m
- $B$ (molded): 15.50 m
- $D$ (molded): 8.20 m
- Draught (design): 5.10 m
- Draught (scantling): 5.90 m

Tonnage

- DWT (at design): 3 500 t
- DWT (at scantling): 4 500 t
- GRT (app): 3 570

Scope of Services

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

References

No References Yet
The vessel is designed as a single screw, asphalt and oil product tanker for unrestricted navigation and service. She is capable to carry asphalt at 170°C, oil products and IMO II type cargoes with gravity up to 1.40 t/m³ in eight pieces of cargo tanks located in the cargo area and semi-integrated to hull structure. Hull structure is analysed by FEM tools for safety and weight optimization. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit. Cargo pump room installation, four segregations, one vapour return line are among the particulars of the ship.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
- No thermal stress on hull structure
- Maximized cargo volume with semi-integrated tanks
6000 CBM ASPHALT TANKER

SPECS

Capacities

<table>
<thead>
<tr>
<th>Cargo</th>
<th>6 050 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Ballast</td>
<td>2 750 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>400 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>75 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>70 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

<table>
<thead>
<tr>
<th>Design speed</th>
<th>14.0 knots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption</td>
<td>12.3 t/day</td>
</tr>
<tr>
<td>Cruising range</td>
<td>8 000 nm</td>
</tr>
</tbody>
</table>

Machinery Main Components

<table>
<thead>
<tr>
<th>Main Engine</th>
<th>1 x 3 360 kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propeller</td>
<td>1 x 4 200 mm FPP</td>
</tr>
<tr>
<td>Diesel Generator</td>
<td>3 x 300 kW</td>
</tr>
<tr>
<td>Em’cy Diesel Generator</td>
<td>1 x 99 kW</td>
</tr>
</tbody>
</table>

Main Dimensions

<table>
<thead>
<tr>
<th>LOA</th>
<th>105.50 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBP</td>
<td>98.50 m</td>
</tr>
<tr>
<td>B (molded)</td>
<td>16.80 m</td>
</tr>
<tr>
<td>D (molded)</td>
<td>8.20 m</td>
</tr>
<tr>
<td>Draught (design)</td>
<td>6.50 m</td>
</tr>
<tr>
<td>Draught (scantling)</td>
<td>6.50 m</td>
</tr>
</tbody>
</table>

Tonnage

<table>
<thead>
<tr>
<th>DWT (at design)</th>
<th>5 900 t</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWT (at scantling)</td>
<td>5 900 t</td>
</tr>
<tr>
<td>GRT (app)</td>
<td>3 920</td>
</tr>
<tr>
<td>NT (app)</td>
<td>1 670</td>
</tr>
</tbody>
</table>

Complement

The accommodation area is arranged for sixteen (16) crews, fourteen (14) single berth cabins, two (2) suits with separate bedrooms are provided.

Lifesaving equipment is arranged for twenty (20) people.

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- MAR VICTORIA
- MAR PAULA
The vessel is designed as a single screw, asphalt and oil product tanker for unrestricted navigation and service. She is capable to carry asphalt at 250°C, oil products and coal tar, coal tar pitch(molten), coal tar naphta solvent, creosote cargoes with gravity up to 1.20 t/m³ in two pieces of independent cargo tanks located in the cargo area independently from hull structure. Hull structure is analysed by FEM tools for safety and weight optimization. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- No thermal stress on hull structure
- Low maintenance period
6750 CBM ASPHALT TANKER

SPECS

Capacities

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo</td>
<td>6 750 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>3 630 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>375 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>90 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>235 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

- Design speed: 12.0 knots
- Consumption: 11.3 t/day
- Cruising range: 8 000 nm

Machinery Main Components

- Main Engine: 1 x 3 060 kW
- Propeller: 1 x 3 800 mm FPP
- Diesel Generator: 3 x 580 kW
- Em’cy Diesel Generator: 1 x 150 kW

Complement

The accommodation area is arranged for eighteen (18) crews and a pilot. Eleven (11) single berth cabins, two (2) double berth cabins, two (2) suits with separate bedrooms and one (1) double berth owner/pilot room are provided.

Lifesaving equipment is arranged for nineteen (19) people.

Main Dimensions

- \( L_{oa} \) ( athwartship) = 115.00 m
- \( L_{bp} \) (length) = 109.40 m
- \( B \) (molded) = 19.00 m
- \( D \) (molded) = 10.25 m
- Draught (design) = 6.80 m
- Draught (scantling) = 7.50 m

Tonnage

- DWT (at design): 7 160 t
- DWT (at scantling): 8 475 t
- GRT (app): 6 025
- NT (app): 1 810

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- BLACK SHARK
6825 CBM ASPHALT TANKER

The vessel is designed as a single screw, asphalt and oil product tanker for unrestricted navigation and service. She is capable to carry asphalt at 250 C, oil products and coal tar, coal tar pitch(molten), coal tar naphta solvent, creosote cargoes with gravity up to 1.20 t/m³ in two pieces of independent cargo tanks located in the cargo area independently from hull structure. Cargo handling system is designed for four segregations based on double valve segregation. The propulsion plant is twin in-single out system so that main engines connected to the one the reduction gear and reduction gear is connected to the intermediate shaft. Hull structure is analysed by FEM tools for safety and weight optimization. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- No thermal stress on hull structure
### 6825 CBM ASPHALT TANKER

#### CAPACITIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo</td>
<td>6,820 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>3,675 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>500 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>100 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>130 m³</td>
</tr>
</tbody>
</table>

#### SPEED, CONSUMPTION/RANGE

- **Design speed**: 14.0 knots
- **Consumption**: 5.0 t/day
- **Cruising range**: 9,000 nm

#### MACHINERY

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Engine</td>
<td>2 x 2,040 kW</td>
</tr>
<tr>
<td>Propeller</td>
<td>1 x 4,000 mm FPP</td>
</tr>
<tr>
<td>Diesel Generator</td>
<td>2 x 600 kW</td>
</tr>
<tr>
<td>Emergency Diesel Generator</td>
<td>1 x 150 kW</td>
</tr>
</tbody>
</table>

#### COMPENSATION

The accommodation area is arranged for eighteen (18) crews and a pilot. Eleven (11) single berth cabins, two (2) double berth cabins, two (2) suits with separate bedrooms and one (1) double berth owner/pilot room are provided. Lifesaving equipment is arranged for nineteen (19) people.

#### MAIN DIMENSIONS

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOA</td>
<td>110.00 m</td>
</tr>
<tr>
<td>LBP</td>
<td>105.70 m</td>
</tr>
<tr>
<td>B (molded)</td>
<td>19.50 m</td>
</tr>
<tr>
<td>D (molded)</td>
<td>10.25 m</td>
</tr>
<tr>
<td>Draught (design)</td>
<td>6.80 m</td>
</tr>
<tr>
<td>Draught (scantling)</td>
<td>7.60 m</td>
</tr>
</tbody>
</table>

#### TONNAGE

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWT (at design)</td>
<td>6,870 t</td>
</tr>
<tr>
<td>DWT (at scantling)</td>
<td>8,350 t</td>
</tr>
<tr>
<td>GRT (app)</td>
<td>6,388</td>
</tr>
</tbody>
</table>

### SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

### REFERENCES

- **CASTILLO DE PAMBRE**
11 000 CBM
ASPHALT TANKER

The vessel is designed as a single screw, asphalt and oil product tanker for unrestricted navigation and service. She is capable to carry asphalt at 250 °C, oil products and molten sulphur at 150 °C with gravity up to 1.80 t/m³ in four (4) pcs cargo tanks located in the cargo area independently from hull structure. Cargo tanks are carried on special supporting structure and the movements are restricted by special keys. Single decked motor ship has triple bottom and triple skin with uncoated cargo tanks. Structural elements face into the cargo tanks and complete hull structure is analysed by FEM tools for safety and weight optimization. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- No thermal stress on hull structure
- Low maintenance period
- Extra safety with triple hull structure
- Cargo tanks dedicated for sulphur & bitumen
11 000 CBM ASPHALT TANKER

SPECS

Capacities

<table>
<thead>
<tr>
<th>Cargo</th>
<th>11 090 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Ballast</td>
<td>4 725 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>800 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>90 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>120 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

- Design speed: 14.5 knots
- Consumption: 19.3 t/day
- Cruising range: 12 500 nm

Machinery

Main Components

- Main Engine: 1 x 5 400 kW
- Propeller: 1 x 4 400 mm FPP
- Diesel Generator: 3 x 750 kW
- Em’cy Diesel Generator: 1 x 150 kW

Main Dimensions

- $L_{oa}$: 129.00 m
- $L_{bp}$: 123.90 m
- $B$ (molded): 22.00 m
- $D$ (molded): 12.50 m
- Draught (design): 7.80 m
- Draught (scantling): 8.20 m

Tonnage

- DWT (at design): 11 450 t
- DWT (at scantling): 12 500 t
- GRT (app): 9 416
- NT (app): 2 824

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

ST CHARLOTTE

Complement

The accommodation area is arranged for twenty (20) crews. Eleven (11) single berth cabins, three (3) double berth cabins, three (3) suits with separate bedrooms are provided.

Lifesaving equipment is arranged for twenty (20) people.
18000 CBM
ASPHALT TANKER

The vessel is designed as single screw, asphalt/oil tanker for unrestricted navigation, being capable to carry oil products (FP above 60°C), asphalt/bitumen with gravity up to 1.30 t/m³ at 250°C in four pcs cargo tank blocks independent from hull structure. Cargo tanks are carried on special supporting structure and the movements are restricted by special keys. Cargo area arrangement includes a continuous main deck, four independent cargo tank blocks, double bottom and side tanks for ballast and cargo pump rooms. Cargo operations flexibility is enhanced by loading/unloading of three different substances at full segregation and shore connection for all tanks. Structural elements face into the cargo tanks and complete hull structure is analysed by FEM tools for safety and weight optimization. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Special attention is paid on design for minimizing noise and vibration levels onboard to maximize comfort of crew. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- No thermal stress on hull structure
- Low maintenance period
- Extra safety with triple hull structure
### 18 000 CBM ASPHALT TANKER

#### SPECS

##### Capacities

<table>
<thead>
<tr>
<th>Cargo</th>
<th>18 000 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Ballast</td>
<td>9 900 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>1 000 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>130 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>150 m³</td>
</tr>
</tbody>
</table>

##### Speed Consumption/Range

- **Design speed**: 14.0 knots
- **Consumption**: 12.2 t/day
- **Cruising range**: 15 500 nm

##### Machinery

**Main Components**

- **Main Engine**: 1 x 5 640 kW
- **Propeller**: 1 x 4 500 mm CPP
- **Diesel Generator**: 3 x 1200 kW
- **Em’cy Diesel Generator**: 1 x 150 kW

##### Complement

- The accommodation area is arranged for 19 cabin with private facilities including pilot cabin. Accommodation includes hospital.
- Lifesaving equipment is arranged for 20 people.

### Main Dimensions

<table>
<thead>
<tr>
<th>LOA</th>
<th>155.00 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBP</td>
<td>149.00 m</td>
</tr>
<tr>
<td>B (molded)</td>
<td>25.00 m</td>
</tr>
<tr>
<td>D (molded)</td>
<td>14.60 m</td>
</tr>
<tr>
<td>Draught (design)</td>
<td>9.20 m</td>
</tr>
<tr>
<td>Draught (scantling)</td>
<td>9.50 m</td>
</tr>
</tbody>
</table>

### Tonnage

<table>
<thead>
<tr>
<th>DWT (at design)</th>
<th>18 500 t</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWT (at scantling)</td>
<td>19 995 t</td>
</tr>
<tr>
<td>GRT (app)</td>
<td>15 500</td>
</tr>
<tr>
<td>NT (app)</td>
<td>4 650</td>
</tr>
</tbody>
</table>

### SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

### REFERENCES

- T.ESRA
- T.AYLIN
BUNKER TANKERS
1100 DWT
BUNKER TANKER

The vessel is designed as single screw, IMO III chemical and oil product / bunker tanker for being capable to carry a large range of liquid IMO III type cargoes and clean/dirty products, lube oil, mineral and vegetable oils, with specific gravity up to 0.98 t/m³, in phenolic epoxy coated cargo / slop tanks. Five (5) pairs of cargo tanks and one integrated slop tank divided with corrugated longitudinal bulkheads are provided with double bottom and single side in way of cargo tanks. No structural elements face into the cargo tanks. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Easy maintenance and overhauling
### 1100 DWT BUNKER TANKER

#### SPECS

**Capacities**
- Cargo: 1,200 m³
- Water Ballast: 405 m³
- MDO: 47 m³
- Fresh Water: 17 m³

**Speed Consumption/Range**
- Design speed: 11.0 knots
- Consumption: 2.7 t/day
- Cruising range: 4,500 nm

**Machinery Main Components**
- Main Engine: 1 x 662 kW
- Propeller: 1 x 2150 mm dia FPP
- Diesel Generator: 3 x 150 kW

**Complement**
- The accommodation area is arranged for nine (9) crews. Three (3) single berth and three (3) double-decker cabins with separate private facilities are provided.
- Lifesaving equipment is arranged for twelve (12) people.

**Main Dimensions**
- $L_{oa}$: 57.80 m
- $B_{fp}$: 54.40 m
- $D$ (molded): 4.50 m
- Draught (design): 3.87 m

**Tonnage**
- DWT (at design): 1,095 t
- DWT (at scantling): 1,115 t
- GRT (app): 587
- NT: 313

### SCOPE OF SERVICES
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

### REFERENCES
- OLIJAREN
- DADWA
1600 DWT BUNKER TANKER

The vessel is designed as twin screw, IMO III chemical and oil product/bunkering tanker for carrying a large range of liquid IMO III type cargoes and clean/dirty products, lube oil, mineral and vegetable oils, with specific gravity up to 1.25 t/m³, in phenolic epoxy coated cargo/slop tanks. Four (4) pairs of cargo tanks and one slop tank divided with corrugated longitudinal bulkheads are provided with double bottom and double sides in way of cargo tanks. No structural elements face into the cargo tanks. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Easy maintenance and overhauling
1600 DWT BUNKER TANKER

**SPECS**

### Capacities
- **Cargo**: 1,595 m³
- **Water Ballast**: 750 m³
- **MDO**: 54 m³
- **Fresh Water**: 30 m³

### Speed Consumption/Range
- **Design speed**: 11.5 knots
- **Consumption**: 3.5 t/day
- **Cruising range**: 3,000 nm

### Machinery Main Components
- **Main Engine**: 2 x 485 kW
- **Propeller**: 2 x 2000 mm dia FPP
- **Diesel Generator**: 3 x 500 kW
- **Em’cy Diesel Generator**: 1 x 320 kW

### Complement
- The accommodation area is arranged for eight (8) crews. Eight (8) single berth cabins with single private facilities are provided.
- Lifesaving equipment is arranged for twelve (12) people.

### Main Dimensions
- **LOA**: 65.00 m
- **LBP**: 61.57 m
- **B (molded)**: 11.50 m
- **D (molded)**: 5.00 m
- **Draught (design)**: 4.20 m
- **Draught (scantling)**: 4.20 m

### Tonnage
- **DWT (at design)**: 1,600 t
- **DWT (at scantling)**: 1,600 t
- **GRT**: 993

### Scope of Services
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

### References
- No References Yet
The specialised single decked, twin rudder propeller vessel is designed for bunkering and ship to ship operations, to carry petroleum products with flash point above 60°C, up to 3 (three) grades of specific cargo with the gravity no more than 1.025 t/m³ at 75°C. Four (4) pair of cargo tanks and one (1) slop smooth-walled tank, divided with vertical transverse and horizontal corrugated longitudinal bulkheads are provided with double bottom, and double sides in way of cargo tanks. No steel structure facing into the cargo tanks except main deck. Electric motor driven, frequency controlled, twin screw, capacities 2x300 m³/h 110 mlc and 1x100 m³/h 110 mlc (fresh water base) cargo pumps to be installed. Two main pumps able to run simultaneously at full capacity. Discharge time not more than 7 hours.

**BENEFITS**

- Low fuel consumption
- Sensitivity and coherence with the environment
- Low operating cost
- Easy maintenance and overhauling
- Low initial investment cost
- Ability to sail in iced sea areas
**SPECS**

### Capacities

<table>
<thead>
<tr>
<th>Component</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNG Cargo</td>
<td>3 700 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>1 500 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>200 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>60 m³</td>
</tr>
</tbody>
</table>

### Speed Consumption/Range

- **Design speed**: 12.5 knots
- **Consumption**: 9.9 t/day
- **Cruising range**: 4 500 nm

### Machinery

- **Main Engine**: 2 x 1 200 kW
- **Propeller**: 2 x 3000 mm dia FPP
- **Diesel Generator**: 3 x 230 kW
- **Em’cy Diesel Generator**: 1 x 125 kW

### Main Dimensions

- **L_{OA}**: 85.50 m
- **L_{BP}**: 81.70 m
- **B (molded)**: 16.10 m
- **Draught (design)**: 5.00 m

### Tonnage

- **DWT (at design)**: 3 600 t
- **GRT**: 2 500 t
- **NT**: 980 t

### Complement

The accommodation area is arranged for eleven (11) personnel. Nine (9) single berth cabins and two (2) suits with separate bedrooms are provided.

Lifesaving equipment is arranged for twelve (12) people. Safe manning is 11 people.

### Scope of Services

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

### References

No References Yet
The specialised single decked, twin rudder propeller vessel is designed for bunkering and ship to ship operations, to carry petroleum products with flash point above 60 °C, up to 5 (five) grades of specific cargo with the gravity no more than 1.03 t/m³ at 75 °C. Four (4) pair of cargo tanks and one (1) slop smooth-walled tank, divided with vertical transverse and horizontal corrugated longitudinal bulkheads are provided with double bottom, and double sides in way of cargo tanks. No steel structure facing into the cargo tanks. One deep-well pump is fitted for each MDO tank, cargo pump room arranged for pumps serving for HFO tanks and one vapour return line is provided.

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Easy maintenance and overhauling
- Ability to sail in iced sea areas
### 3900 DWT BUNKER TANKER

**SPECS**

#### Capacities

<table>
<thead>
<tr>
<th>Description</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNG Cargo</td>
<td>4,260 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>1,820 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>140 m³</td>
</tr>
<tr>
<td>LO</td>
<td>9 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>130 m³</td>
</tr>
</tbody>
</table>

#### Speed Consumption/Range

- Design speed: 11.0 knots
- Consumption: 8.0 t/day
- Cruising range: 3,200 nm

#### Machinery

**Main Components**

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Engine</td>
<td>2 x 1,080 kW</td>
</tr>
<tr>
<td>Propeller</td>
<td>2 x 2000 mm dia CPP</td>
</tr>
<tr>
<td>Diesel Generator</td>
<td>3 x 500 kW</td>
</tr>
<tr>
<td>Emergency Diesel Generator</td>
<td>1 x 320 kW</td>
</tr>
</tbody>
</table>

#### Main Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOA</td>
<td>79.90 m</td>
</tr>
<tr>
<td>LBP</td>
<td>76.10 m</td>
</tr>
<tr>
<td>B (molded)</td>
<td>15.00 m</td>
</tr>
<tr>
<td>D (molded)</td>
<td>8.00 m</td>
</tr>
<tr>
<td>Draught (design)</td>
<td>5.90 m</td>
</tr>
<tr>
<td>Draught (scantling)</td>
<td>6.00 m</td>
</tr>
</tbody>
</table>

#### Tonnage

- DWT (at design): 3,910 t
- DWT (at scantling): 4,015 t
- GRT: 2,747 t
- NT: 1,180 t

#### Complement

- The accommodation area is arranged for ten (10) crews. Seven (7) single berth cabins and three (3) double berth are provided.
- Lifesaving equipment is arranged for twelve (12) people.

#### Scope of Services

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

#### References

- FS CAMILLE
- AWANUIA
The vessels is designed as a twin screw, double hull LNG bunkering vessel, powered by dual-fuel engines for worldwide trade, however with special emphasis on the emerging north European LNG bunker market. Two (2) insulated independent Type C LNG cargo tanks are provided with a total capacity of 2,800 cbm. Each tank has one (1) frequency controlled cryogenic deep well pump securing efficient cargo handling with high capacity. The cargo system is designed with multi client, multi customer capabilities and continuous measuring of quality and quantity during loading and discharge/delivery to customers. The vessel can also deliver MGO/Diesel to customers. Operational flexibility, environmental concern and awareness and with possibilities to adapt to future regulations are the basic objectives of the design, which has been developed based on an in-depth and thorough understanding of the bunker market and the development of the market for LNG as marine fuel.

**BENEFITS**

- Efficiency in fuel consumption & EEDI
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to sail in iced sea areas
- Easy maintenance and overhauling
- Operational flexibility
- Consideration of future regulations
2500 DWT LNG & OIL BUNKER TANKER

SPECS

Capacities

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNG Cargo</td>
<td>2,800 m³</td>
</tr>
<tr>
<td>Liquid Cargo</td>
<td>890 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>1,600 m³</td>
</tr>
<tr>
<td>DO</td>
<td>200 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>70 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

- Design speed: 13.0 knots
- Consumption (85% MCR, 5% tolerance)
  - LNG Mode: 7.5 t/day LNG + 0.17 t/day DIESEL
  - Liquid Fuel Mode: 8.8 t/day DIESEL

Machinery

- Main Engine: 2 x 1,056 kW
- Propeller: 2 x 3,000 mm dia CPP
- Diesel Generator: 1 x TBA kW
- Em’cy Diesel Generator: 1 x 99 kW
- LNG: 2 x 300 m³/h @ 8 bar
- MDD: 2 x 150 m³/h @ 10 bar

Main Dimensions

- LOA: 79.30 m
- LR: 74.50 m
- B (molded): 16.00 m
- D (molded): 8.30 m
- Draught (design): 5.80 m

Tonnage

- DWT (at design): 2,500 t
- DWT (at scantling): 3,800 t
- NT: 1,140

Complement

- The accommodation area is arranged for fourteen (14) crew and pilot/owner. Twelve (12) pieces of single berth cabins, two (2) pieces of suits with separate bedrooms and one cabin for pilot/owner are provided.
- Lifesaving equipment is arranged for sixteen (16) people.

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- No References Yet
3500 DWT LPG CARRIER

3500 CBM LPG Carrier is a 2 PG class ship, able to carry LPG, petrochemical gases and ammonia in two (2) pieces of semi refrigerated C type cargo tank designed for 10 bar pressure and -48°C temperature. During the design process advanced engineering tools have been used for hull form and weight optimization with a view to reduce the building and operation costs. Additionally environment-friendly approach and comfort criteria have been considered as main design inputs.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Ability to carry various types of cargo
3500 DWT LPG CARRIER SHIP

**CAPACITIES**

<table>
<thead>
<tr>
<th>Description</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNG Cargo</td>
<td>3,500 m³</td>
</tr>
<tr>
<td>Water Ballast</td>
<td>1,900 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>205 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>54 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>80 m³</td>
</tr>
</tbody>
</table>
PASSENGER SHIPS
Day-ferry is designed for daily cruises with sailing, loading and unloading ability from both sides and for ports with restricted maneuvering possibilities. The ship, equipped with redundant propulsion and maneuvering systems, has high sea-keeping particulars and trimaran hull structure creating low resistance, thus low fuel consumption. Passenger saloon is arranged for 850 pax while 400 pax can be accommodated on open deck. The passenger saloon is fitted with HVAC equipment for winter and summer conditions, high comfort in terms of vibration and noise and panoramic view. CP propellers installed at both ends of the ship are connected to a single engine via reduction, shaft and coupling. Depending on the cruising direction only one propeller is activated while the other’s blades are placed parallel to streamlines for minimum resistance. Two pump-jets enabling 360° propulsion provides excellent maneuverability and also they are substitute to main propulsion system with generators in case of breakdown.

**BENEFITS**
- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Operational flexibility
1250 PAX TRIMARAN DAY FERRY

**SPECS**

**Capacities**
- **Passenger**
  - Indoor Seated: 850 Pax
  - Outdoor Seated: 400 Pax
- **Car**
  - 200
- **Car + Truck**
  - 166 + 16
- **MDO**
  - 250 m³
- **Fresh Water**
  - 50 m³

**Speed Consumption/Range**
- **Design speed**
  - 16.0 knots
- **Consumption**
  - 14.7 t/day
- **Cruising range**
  - 4 500 nm

**Machinery Main Components**
- **Main Engine**
  - 1 x 4 000 kW
- **Propeller**
  - 1 x 2 500 mm CPP
- **Diesel Generator**
  - 3 x 550 kW
- **Shaft Generator**
  - 2 x 300 kW
- **Em’cy Diesel Generator**
  - 1 x 90 kW

**Complement**
- The accommodation area is arranged for ten (10) crews. Ten (10) single berth cabins with separate private facilities are provided.

**Main Dimensions**
- **L_{oa}**
  - 99.90 m
- **L_{bp}**
  - 96.00 m
- **B (molded)**
  - 28.00 m
- **D (molded)**
  - 6.00 m
- **Draught (design)**
  - 3.50 m
- **Draught (scantling)**
  - 3.50 m

**Tonnage**
- **DWT (at design)**
  - 850 t
- **DWT (at scantling)**
  - 850 t
- **GRT (app)**
  - 10 300
- **NT**
  - 3 090

**SCOPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
- No References Yet
Day ferry is an innovative design of a RoPax ferry that is tailor made project especially for the trade in Marmara Sea. Operational flexibility of highest degree is one of the most important characteristics of the design. This gives the operator the opportunity to focus on high passenger capacity in summer season and more cargo flexibility during the winter. Furthermore high reliability and low operating costs are among the key aspects of the ship. Advanced design features create a pleasant atmosphere in all public areas and thus makes the trip an agreeable travelling experience. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

**1430 PAX**

**ROPAX FERRY**

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Easy maintenance and overhauling
- Operational flexibility
1430 PAX ROPAX FERRY

SPECS

Capacities

- **Passenger**: Indoor Seated: 850 Pax
  Outdoor Seated: 580 Pax
- **Car**: 150
- **Car + Truck**: 106 + 16
- **MDO**: 250 m³
- **Fresh Water**: 250 m³

Speed Consumption/Range

- **Design speed**: 14.0 knots
- **Consumption**: 11.8 t/day
- **Cruising range**: 5 000 nm

Machinery

Main Components

- **Main Engine**: 2 x 1 600 kW
- **Propeller**: 2 x 2 300 mm CPP
- **Diesel Generator**: 3 x 500 kW
- **Em’cy Diesel Generator**: 1 x 99 kW

Complement

The accommodation area is arranged for twelve (12) crews. Twelve (12) single berth cabins, are provided.

Main Dimensions

- **L_{PA}**: 85.00 m
- **L_{AP}**: 83.60 m
- **B (molded)**: 20.70 m
- **D (molded)**: 5.00 m
- **Draught (design)**: 3.30 m

Tonnage

- **DWT (at design)**: 1 000 t

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- No References Yet
1800 PAX
PASSENGER SHIP

The vessel which is selected by voting on internet within the “Istanbul Let’s Select Your Ferry” campaign, keeps traditional lines of conventional Istanbul’s passenger ships. The vessel is equipped with modern diesel-electric drive system allowing big saving on the engine power and thus very low emission levels and minimized noise. This environment-friendly quiet ship has spacious accommodation, large panoramic windows, effective air conditioning systems and large open deck areas free from vibration. Special design features such as passenger ramps, smooth floors, wide aisles and special toilets for disabled people create a pleasant atmosphere in all public areas. Hull structure is analysed by FEM tools for safety, weight optimization and vibration. The hull form, optimized with CFD analysis, is designed for minimum resistance and fuel consumption. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Low initial investment cost
- Easy maintenance and overhauling
- Innovative propulsion system
1800 PAX PASSENGER SHIP

SPECS

Capacities

- **Passenger**: Indoor Seated: 703 Pax, Outdoor Seated: 588 Pax, Standing: 509, Total: 1800 Pax
- **Water Ballast**: 142.80 m³
- **MDO**: 60.40 m³
- **Fresh Water**: 4.0 m³

Speed Consumption/Range

- **Design speed**: 14.0 knots
- **Consumption**: 6.0 t/day
- **Cruising range**: 3,000 nm

Machinery

**Main Components**

- **Main Engine**: 4 x 420 kW
- **Propeller**: 2 x 1 400 mm Azimuth
- **Bow Thruster**: 200 kW
- **Em’cy Diesel Generator**: 1 x 150 kW

Complement

The accommodation area is arranged for six (6) personel. Two (2) single berth cabins and two (2) double berth cabins with separate private facilities are provided.

Main Dimensions

- **LOA**: 67.96 m
- **LBP**: 63.38 m
- **B (molded)**: 13.00 m
- **D (molded)**: 3.70 m
- **Draught (design)**: 2.50 m
- **Draught (scantling)**: 2.80 m

Tonnage

- **DWT (at design)**: 115 t
- **DWT (at scantling)**: 300 t
- **GRT**: 741

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- SH FATİH
- SH KADIKÖY
- SH BEYOĞLU
- SH BEYKOZ
- SH SARIYER
8500 DWT
FLOATING DRY DOCK

The floating dock is designed to performing all kinds of maintenance and overhauling operations (ship equipment removal/replacement, handling, maintenance operations and testing) for vessels up to 8,500 tonnes of displacement. Docking space for ships is up to 135 m length, 19 m breadth and 6 m draft. Maximum deck load for clear deck area is 12 t/m².

The floating dock is equipped with two (2) travelling cranes with maximum lifting capacity 20 tonnes.
DELTA MARINE MERCHANT SHIPS DESIGN PORTFOLIO

8500 DWT FLOATING DRY DOCK

SPECS

Capacities

<table>
<thead>
<tr>
<th>Cargo</th>
<th>8 500 t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Ballast</td>
<td>26 500 m³</td>
</tr>
<tr>
<td>HFO</td>
<td>N/A</td>
</tr>
<tr>
<td>MDO</td>
<td>60 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>50 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

| Design speed | N/A |
| Consumption | N/A |
| Cruising range | N/A |

Machinery

| Main Engine | N/A |
| Propeller | N/A |
| Diesel Generator | N/A |
| Em’cy Diesel Generator | 1 x 500 kW |

Main Dimensions

| LOA | 175.00 m |
| LBP | 160.00 m |
| B (molded) | 37.50 m |
| D (molded) | 16.50 m |
| Draught (design) | 3.00 m |
| Draught (scantling) | 12.00 m |

Tonnage

| Cargo | 8 500 t |
| Water Ballast | 26 500 m³ |
| HFO | N/A |
| MDO | 60 m³ |
| Fresh Water | 50 m³ |

Complement

The accommodation area is arranged for eighteen (18) personnel with nine (9) bunk berth cabins.

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

REFERENCES

- SEDEF NB177
- SEDEF NB178

www.deltamarine.com.tr

141
53 M
OIL RECOVERY SHIP

Vessel with steel hull and superstructure is designed to recover spilled oil, prevent sea pollution and handle buoy. Fitted with all the equipment necessary to implement effective and quick oil clean-up operations the ship has two (2) rigid sweeping arms with ropes and cables and tow cranes including winches, hydraulic controls for sweeping arms. Recovering spilled oil capacity is 200m³ for an hour and 400 m³ in total.

BENEFITS

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Easy maintenance and overhauling
- Operational flexibility
- Multiple functionality
- Efficient propulsion system
53 M OIL RECOVERY SHIP

SPECS

Capacities
- Cargo: 422 m³
- Water Ballast: 269 m³
- MDO: 75 m³
- Fresh Water: 40 m³

Speed Consumption/Range
- Design speed: 13.0 knots
- Consumption: 9.1 t/day
- Cruising range: 1850 nm

Machinery Main Components
- Main Engine: 2 x 1170 kW
- Propeller: 2 x 1695 mm CPP
- Diesel Generator: 3 x 450 kW
- Em’cy Diesel Generator: 1 x 116 kW

Complement
Accommodation is arranged for thirteen (13) persons. Five (5) two berth cabins, two (2) suits with separate private facilities and an owner cabin are provided.

Main Dimensions
- LOA: 52.95 m
- LOF: 46.90 m
- B (molded): 12.00 m
- D (molded): 5.50 m
- Draught (design): 3.80 m
- Draught (scantling): 4.00 m

Tonnage
- DWT (at design): 597 t
- DWT (at scantling): 700 t
- GRT (app): 939
- NT (app): 281

SCOPE OF SERVICES
- Conceptual Design
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- Feasibility Analyses

REFERENCES
SEYIT ONBASI
The vessel with steel hull and superstructure is designed as twin screw oil supply recovery ship for various purposes such as detection and recovering oil spill; transportation of fresh water, diesel oil, stores, materials and equipment; external fire fighting; movement between platforms and shore; rescue men fallen overboard; towing, drilling and work-over rig in unrestricted service area. Fitted with all necessary equipment for quick and effective oil clean-up and fire-fighting, the vessel is driven by efficient diesel electric propulsion with twin azimuth thrusters. Two rigid sweeping arms are installed for oil recovery while dynamic positioning capability is maintained by two azimuth and one bow thruster. Designed for 24/7 continuous operation and 10 days at stand-by position as station, the vessel has a total spilled oil capacity of 1,050 m³.

**63 M OIL SUPPLY RECOVERY SHIP**

**BENEFITS**

- Compliance with environmental requirements
- Low operating cost
- Easy maintenance and overhauling
- Operational flexibility
- Multiple functionality
- Efficient propulsion system

63 M

OIL SUPPLY RECOVERY SHIP
63 M OIL SUPPLY RECOVERY SHIP

**SPECS**

**Capacities**

- Oil Spill Collecting Tanks: 1050 m³
- Cargo D/O Tanks: 320 m³
- Cargo F/W Tanks: 350 m³
- Water Ballast: 700 m³
- MDO: 110 m³
- Fresh Water: 40 m³

**Speed Consumption/Range**

- Design speed: 17 knots
- Consumption: 26.0 t/day
- Cruising range: 1,250 nm

**Machinery Main Components**

<table>
<thead>
<tr>
<th>Component</th>
<th>kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Engine</td>
<td>4 x 1 600</td>
</tr>
<tr>
<td>Propeller</td>
<td>2 x 2 850</td>
</tr>
<tr>
<td>Diesel Generator</td>
<td>2 x 2 750</td>
</tr>
<tr>
<td>Emergency Diesel Generator</td>
<td>1 x 99</td>
</tr>
</tbody>
</table>

**Main Dimensions**

- LOA: 62.90 m
- LBP: 60.00 m
- B (molded): 15.00 m
- D (molded): 6.00 m
- Draught (design): 4.20 m
- Draught (service): 3.60 m
- Draught (scantling): 4.90 m

**Tonnage**

- DWT (at design): 1,300 t
- DWT (at scantling): 1,950 t
- DWT (at service): 800 t
- GRT: 1,810
- NT (app): 543

**Complement**

Accommodation is arranged for twenty-two (22) people. Nine (9) double berthed cabins, four (4) single berthed cabins with separate private facilities are provided.

**SCOPE OF SERVICES**

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- Feasibility Analyses

**REFERENCES**

- No References Yet
Vessel with steel hull and superstructure is designed for towing operations, pushing operations, line handling, general handling and fire fighting. The vessel is equipped with Voith Schneider propulsion system for superior manoeuvrability. Overall design provides an environment-friendly, cost-effective, reliable and flexible unit.

**BENEFITS**
- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Easy maintenance and overhauling
- Operational flexibility
- Efficient propulsion system
60 TON BP TUGBOAT

**SPECS**

### Capacities

- **Cargo**: 60 tons (Bollards Pull Ahead)
- **Water Ballast**: 60 m³
- **MDO**: 100 m³
- **Fresh Water**: 50 m³

### Speed Consumption/Range

- **Design speed**: up to 14.0 knots
- **Consumption**: 0.85 t/day
- **Cruising range**: 1,350 nm

### Machinery

#### Main Components

- **Main Engine**: 2 x 2,610 kW
- **Propeller**: 2 x Voith Cyclodial
- **Diesel Generator**: 2 x 150 kW

### Main Dimensions

- **LOA**: 33.75 m
- **LBP**: 31.55 m
- **B (molded)**: 12.60 m
- **D (molded)**: 5.20 m
- **Draught (design)**: 3.10 m
- **Draught (scantling)**: 3.30 m

### Complement

- Accommodation is arranged for ten (10) persons. Four (4) single bed cabins with separate private facilities and three (3) double decker cabins are provided.
- Lifesaving equipment is arranged for sixteen (16) people.

### SCOPE OF SERVICES

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- No References Yet
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**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Easy maintenance and overhauling
- Operational flexibility
- Efficient propulsion system
80 TON BP TUGBOAT

SPECS

Capacities

<table>
<thead>
<tr>
<th>Cargo</th>
<th>80 tons (Bollards Pull Ahead)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Ballast</td>
<td>60 m³</td>
</tr>
<tr>
<td>MDO</td>
<td>130 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>50 m³</td>
</tr>
</tbody>
</table>

Speed Consumption/Range

Design speed: up to 14.0 knots
Consumption: 1.1 t/day
Cruising range: 1 350 nm

Machinery

Main Components

- Main Engine: 2 x 3 600 kW
- Propeller: 2 x Voith Cyclodial Rudder
- Diesel Generator: 2 x 150 kW

Complement

Accommodation is arranged for ten (10) persons. Four (4) single bed cabins with separate private facilities and three (3) double decker cabins are provided.

Lifesaving equipment is arranged for sixteen (16) people.

Main Dimensions

- LOA: 37.50 m
- LBP: 34.55 m
- B (molded): 14.00 m
- D (molded): 5.60 m
- Draught (design): 3.80 m
- Draught (scantling): 4.00 m

Tonnage

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
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- Feasibility Analyses

REFERENCES

No References Yet
Utility vessel is designed for support production operations, providing storage space, emergency standby, and transporting personnel between platforms. This powerful vessel with optimized weight can travel at up to 25 knots.

**82 PAX CREW SHIP**

**BENEFITS**

- Low fuel consumption
- Compliance with environmental requirements
- Low operating cost
- Easy maintenance and overhauling
- Operational flexibility
- Multiple functionality
82 PAX CREW SHIP

SPECS

**Capacities**
- Cargo: 72 Pax
- HFO: 123 m³
- Fresh Water: 100 m³

**Speed Consumption/Range**
- Design speed: 25.0 knots
- Consumption: 13.6 t/day

**Machinery Main Components**
- Main Engine: 2 x 1 850 kW
- Propeller: 2 x 1 300 mm FPP
- Diesel Generator: 3 x 200 kW
- Em’cy Diesel Generator: 1 x 45 kW

**Complement**
The accommodation area is arranged for eight (8) crews in seven (7) cabins.
Suitable for 72 passenger seating.

**Main Dimensions**
- $L_{OA}$: 45.00 m
- $L_{OP}$: 42.00 m
- $B$ (molded): 8.50 m
- $D$ (molded): 3.70 m
- Draught (design): 1.45 m
- Draught (scantling): 2.10 m

**Tonnage**
- DWT (at design): 58 t
- DWT (at scantling): 175 t

**SCOPE OF SERVICES**
- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses
- Project & Document Management
- Supervision Services
- Procurement Consultancy
- Feasibility Analyses

**REFERENCES**
- No References Yet
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