Offshore Vessels & Tugs
REMONTOWA SHIPBUILDING S.A. GENERAL DESCRIPTION

REMONTOWA SHIPBUILDING S.A. is the biggest of companies belonging to REMONTOWA HOLDING which gives an opportunity to offer highly technically advanced products – from design to fully equipped ships.

REMONTOWA SHIPBUILDING S.A. owns a hull department consisting of four halls and nine bays (each equipped with overhead cranes of different lifting capacity), two stands for launching vessels using floating cranes, one stand for launching vessels into floating dock or pontoon, one side roller slipway and a 400-metre long quay equipped with essential infrastructure, compressed air, electricity and technical gases supply. The Shipyard’s technical and production capabilities allow to build modern vessels up to 130 metres in length and 24 metres in width.

The Shipyard specialises in building advanced vessels such as:
- offshore support vessels (AHTS, PSV, ERRV, MPV, IMR, ROV);
- cargo vessels (container vessels, open deck carriers, LNG/LPG/LEG carriers);
- car-passenger ferries;
- multipurpose vessels (patrol boats, hydrographic ships, multifunction buoy tenders, research vessels, tugs);
- navy ships;
- fishing vessels;
- partly outfitted hulls, steel/aluminum constructions.

The outfitting of vessels covers:
- painting;
- piping;
- machinery and deck outfitting;
- electric and electronic works;
- accommodation outfitting.

REMONTOWA SHIPBUILDING S.A. maintains certified quality assurance and management systems:
- Quality Management System which conforms to the requirements of the International Standard ISO 9001:2008 (certified by Germanischer Lloyd and Polish Register of Shipping), as well as AQAP 2110:2009 (certified by Department of Management and Quality Systems of Military Technical Academy);
- Internal Control System (for goods of strategic importance) which conforms to the Criteria of WSK (Internal Control System) certified by Polish Centre for Testing and Certification;
- Occupational Health and Safety Management System which conforms to the requirements of OHSAS 18001:2007 certified by Germanischer Lloyd.

The Shipyard also retains:
- License for manufacture and trade turnover of goods and technology for the army and the police and also trade turnover of any kind of the weapon, issued by Polish Ministry of Interior and Administration;
- NATO Commercial and Government Entity Code.

REMONTOWA SHIPBUILDING S.A. builds vessels in conformity to the requirements and under the supervision of the following Classification Societies:
- American Bureau of Shipping;
- Bureau Veritas;
- Det Norske Veritas;
- Germanischer Lloyd;
- Lloyd’s Register of Shipping;
- Polish Register of Shipping;
- Registro Italiano Navale.
ICE BREAKING EMERGENCY EVACUATION VESSELS

**VESELS’ NAMES**
IBBEV 01÷10

**CLASS**
DNV +1A1 ICE 1B DAT (-30°C)

**DESCRIPTION**
ICE BREAKING EMERGENCY EVACUATION VESSELS are used to carry out the emergency evacuation of personnel from offshore installations located in the Kashagan Field, which is currently one of the largest offshore developments in the world (and which forms part of the Kazakhstan Economical zone).

**MAIN PARTICULARS**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length over all</td>
<td>45,10 m</td>
</tr>
<tr>
<td>Length, waterline</td>
<td>42,34 m</td>
</tr>
<tr>
<td>Breadth moulded</td>
<td>8,00 m</td>
</tr>
<tr>
<td>Depth to Main Deck</td>
<td>3,60 m</td>
</tr>
<tr>
<td>Depth to Upper Deck</td>
<td>5,80 m</td>
</tr>
<tr>
<td>Draught (summer)</td>
<td>2,00 m</td>
</tr>
<tr>
<td>Draught (winter)</td>
<td>2,10 m</td>
</tr>
<tr>
<td>Ice breaking capability</td>
<td>0,60 m</td>
</tr>
</tbody>
</table>

**TANKS’ CAPACITIES**

<table>
<thead>
<tr>
<th>Tank Type</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel oil</td>
<td>9,50 m³</td>
</tr>
<tr>
<td>Water Ballast/Cooling Water</td>
<td>25,00 m³</td>
</tr>
<tr>
<td>Potable Water</td>
<td>4,20 m³</td>
</tr>
<tr>
<td>Sewage /Grey Water</td>
<td>1,00 m³</td>
</tr>
</tbody>
</table>

**PROPULSION**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type Diesel-Electric</td>
<td></td>
</tr>
<tr>
<td>Output power</td>
<td>2 x 800 kW (at 1500 RPM)</td>
</tr>
<tr>
<td>Azimuth thrusters</td>
<td>2 x 550 kW (at 1500 RPM)</td>
</tr>
</tbody>
</table>

**COMPLEMENT**

<table>
<thead>
<tr>
<th>Role</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew</td>
<td>2</td>
</tr>
<tr>
<td>Evacuees seated</td>
<td>328</td>
</tr>
<tr>
<td>Evacuees (stretcher-borne casualties)</td>
<td>10</td>
</tr>
</tbody>
</table>

**DESIGN**

Basic design by Robert Allan (Canada). Class and technical design by NED – Naval Engineering & Design (presently Remontowa Marine Design & Consulting).

**OWNER**
Agip KCO ENI Group

**YEAR OF DELIVERY**
2006–2009
## VESSELS’ NAMES
- B 244/1 – “J.Hugh Roff Jr”
- B 244/2 – “Big Joe Tide”

## CLASS
ABS +A1 (E), Offshore Support Vessel, +AMS, DPS-1, FFV Class 1

### MAIN PARTICULARS
- **Length, over all**: 67,00 m
- **Length b.p.**: 61,80 m
- **Breadth mld.**: 15,50 m
- **Depth to 1st Deck**: 6,60 m
- **Design draught**: 4,60 m
- **Scantling draught**: 5,10 m
- **Bollard pull**: 102,90 Mt
- **Deadweight**: 2318 t
- **Complement**: 28 persons

### TANKS’ CAPACITIES
- **Ballast/Drill Water**: 501,00 m³
- **Fresh & Potable Water**: 208,20 m³
- **Fuel Oil**: 872,80 m³
- **Liquid Mud**: 478,80 m³
- **Dry Bulk**: 193,60 m³

### PROPULSION
- **Main Engine**: 2 x 2985 kW (at 900 RPM)
- **Speed**: 14 kn
- **Bow thruster**: 1 x 800 HP

### GENERATING SETS
- **Main generating set**: 1 x 250 kW (at 1800 RPM)
- **Emergency/harbour generator**: 1 x 150 kW (at 1800 RPM)

### DECK EQUIPMENT
- **LP hydraulically driven towing winch**: 225 t
- **Tugger winches**: 2 x 10 t
- **Stern roller**: 300 t / ø1,5 m, length 2,4 m
- **Shark jaws & towing pins**: 1 set
- **Deck crane**: 1 x electro-hydraulic knuckle arm 2 t/10 m

### CARGO PUMPS
- **Fuel oil**: 1 x 150 m³/h @9 bar el. dr.
- **Fresh water**: 1 x 150 m³/h @ 9 bar el. dr.
- **Ballast/Drill Water**: 1 x 150 m³/h @ 9 bar el. dr.
- **Liquid Mud**: 3 x 150 m³/h @ 7 bar el. dr.
- **Bulk Handling System**: 2 x bulk mud compressor each 1100 m³/h @ 5,5 bar

**DESIGN**
The vessels have been built according to the project NED 8167 AHTS prepared by NED – Naval Engineering & Design (presently Remontowa Marine Design & Consulting).

**OWNER**
Tidewater Marine LLC

**YEAR OF DELIVERY**
2005
**VESSELS’ NAMES**
B 844/1 – “DuMoulin Tide”  
B 844/2 – “Leonard Tide”

**CLASS**
ABS +A1 (E), Offshore Support Vessel,  
+ AMS, +DPS-1, +FFV Class 1

**MAIN PARTICULARS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length over all</td>
<td>70,00 m</td>
</tr>
<tr>
<td>Length b.p.</td>
<td>66,60 m</td>
</tr>
<tr>
<td>Breadth moulded</td>
<td>15,50 m</td>
</tr>
<tr>
<td>Depth to 1st Deck</td>
<td>6,60 m</td>
</tr>
<tr>
<td>Design draught</td>
<td>5,10 m</td>
</tr>
<tr>
<td>Bollard pull</td>
<td>120 Mt</td>
</tr>
<tr>
<td>Deadweight</td>
<td>2050t</td>
</tr>
</tbody>
</table>

**TANKS’ CAPACITIES**

<table>
<thead>
<tr>
<th>Description</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballast/Drill Water</td>
<td>885,00 m³</td>
</tr>
</tbody>
</table>

**PROPULSION**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Engine</td>
<td>2 x 3730 kW (at 900 RPM)</td>
</tr>
<tr>
<td>Gearbox</td>
<td>2 x 165 RPM, 5.45:1</td>
</tr>
<tr>
<td>Shaft Line with Propeller</td>
<td>2 x CPP, ø3,4 m</td>
</tr>
<tr>
<td>Shaft Generators</td>
<td>2 x 1200 kW (at 1800 RPM)</td>
</tr>
<tr>
<td>Bow Thruster</td>
<td>2 x 650 kW</td>
</tr>
</tbody>
</table>

**DECK EQUIPMENT**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP hydraulically driven towing winch</td>
<td>300 t</td>
</tr>
<tr>
<td>Tugger winches</td>
<td>2 x 10 t</td>
</tr>
<tr>
<td>Stern roller</td>
<td>400 t / ø2,5 m, length 4,0 m</td>
</tr>
<tr>
<td>Shark jaws &amp; towing pins</td>
<td>1 set</td>
</tr>
<tr>
<td>Deck crane</td>
<td>1 x electro-hydraulic knuckle arm 2 t/10 m</td>
</tr>
</tbody>
</table>

**CARGO PUMPS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Oil</td>
<td>1 x 150 m³/h @ 9 bar el. dr.</td>
</tr>
<tr>
<td>Fresh water</td>
<td>1 x 150 m³/h @ 9 bar el. dr.</td>
</tr>
<tr>
<td>Ballast/Drill Water</td>
<td>1 x 150 m³/h @ 9 bar el. dr.</td>
</tr>
<tr>
<td>Liquid Mud</td>
<td>2 x 150 m³/h @ 7 bar el. dr.</td>
</tr>
<tr>
<td>Bulk Handling System</td>
<td>2 x bulk mud compressor each 1100 m³/h @ 8 bar</td>
</tr>
</tbody>
</table>

**DESIGN**
The vessels have been built according to the project NED 8167L AHTS prepared by NED – Naval Engineering & Design (presently Remontowa Marine Design & Consulting).

**OWNER**
Tidewater Marine LLC

**YEAR OF DELIVERY**
2006

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**OFFSHORE VESSELS & TUGS**
### VESEL’S NAMES
- B 844/3 – “Thompson Tide”
- B 844/4 – “Sutton Tide”
- B 844/5 – “Allison Tide”
- B 844/6 – “Kehoe Tide”
- B 844/7 – “Day Tide”
- B 844/8 – “Cindy Tide”

### CLASS
ABS +A1 (E), Offshore Support Vessel, +AMS, +DPS-2, +FFV Class 1

### MAIN PARTICULARS
- Length over all: 70,00 m
- Length b.p.: 66,60 m
- Breadth moulded: 15,50 m
- Depth to 1st Deck: 6,60 m
- Design draught: 5,10 m

### TANKS’ CAPACITIES
- Ballast/Drill Water: 816,00 m³
- Fresh & Potable Water: 99,00 m³
- Fuel Oil: 828,00 m³
- Liquid Mud: 475,00 m³
- Dry Bulk: 194,00 m³

### BOLLARD PULL
- 120 Mt

### COMPLEMENT
- 28 + 1 persons

### GENERATING SETS
- Generating Set: 2 x 250 kW (at 1800 RPM)
- Emergency/Harbour Generator: 1 x 150 kW (at 1800 RPM)

### DECK EQUIPMENT
- LP hydraulically driven towing winch: 300 t
- Tugger winches: 2 x 10 t
- Stern roller: 400 t / ø 2,5 m, length 4,0 m
- Shark jaws & towing pins: 1 set
- Deck crane: 1 x electro-hydraulic knuckle arm 2 t / 10 m

### CARGO PUMPS
- Fuel oil: 1 x 150 m³/h @ 9 bar, el. dr.
- Fresh water: 1 x 150 m³/h @ 9 bar, el. dr.
- Ballast/Drill water: 1 x 150 m³/h @ 9 bar, el. dr.
- Liquid mud: 3 x 150 m³/h @ 7 bar, el. dr.

### DESIGN
The vessels have been built according to the project NED 8167L AHTS prepared by NED – Naval Engineering & Design (presently Remontowa Marine Design & Consulting).

### OWNER
Tidewater Marine LLC

### YEAR OF DELIVERY
2007–2009
B844/6 – upgraded to Hose Handling function
B844/8 – upgraded to ROV Support function
**B844/9,10 ANCHOR HANDLING / TOWING / SUPPLY VESSELS**

<table>
<thead>
<tr>
<th>VESSELS’ NAMES</th>
<th>B 844/9 – “Ievoli Blue”</th>
<th>B 844/10 – “Ievoli Black”</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLASS</td>
<td>ABS +A1 (E), Offshore Support Vessel, +AMS, +DPS-2, +FFV Class 1 +AH, +Towing vessel, +ACCURINA C+ tug, supply vessel – chemical product, fire-fighting ship, unrestricted navigation, +AUT-UMS, +DYNAPOS AM/AT</td>
<td></td>
</tr>
</tbody>
</table>

**MAIN PARTICULARS**

<table>
<thead>
<tr>
<th>Main particulars</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length over all</td>
<td>70,00 m</td>
</tr>
<tr>
<td>Length b.p.</td>
<td>66,60 m</td>
</tr>
<tr>
<td>Breadth moulded</td>
<td>15,50 m</td>
</tr>
<tr>
<td>Depth to 1st Deck</td>
<td>6,60 m</td>
</tr>
<tr>
<td>Design draught</td>
<td>5,10 m</td>
</tr>
<tr>
<td>Bollard pull</td>
<td>120 Mt</td>
</tr>
<tr>
<td>Deadweight</td>
<td>2113 t</td>
</tr>
<tr>
<td>Complement</td>
<td>28+1 persons</td>
</tr>
</tbody>
</table>

**TANKS’ CAPACITIES**

<table>
<thead>
<tr>
<th>Tanks’ capacities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballast/Drill Water</td>
<td>816,00 m³</td>
</tr>
<tr>
<td>Fresh &amp; Potable Water</td>
<td>99,00 m³</td>
</tr>
<tr>
<td>Fuel Oil</td>
<td>828,00 m³</td>
</tr>
<tr>
<td>Liquid Mud</td>
<td>475,00 m³</td>
</tr>
<tr>
<td>Dry Bulk</td>
<td>194,00 m³</td>
</tr>
</tbody>
</table>

**PROPULESION**

<table>
<thead>
<tr>
<th>Propulsion</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Engine</td>
<td>2 x 4080 kW (at 1000 RPM)</td>
</tr>
<tr>
<td>Gearbox</td>
<td>2 x 165 RPM, 5,45:1</td>
</tr>
<tr>
<td>Shaft Line with Propeller</td>
<td>2 x CPP, ø3,4 m in nozzles</td>
</tr>
<tr>
<td>Shaft Generators</td>
<td>2 x 1740 kW (at 1800 RPM)</td>
</tr>
<tr>
<td>Bow Thruster</td>
<td>2 x 800 HP</td>
</tr>
<tr>
<td>Stern Thruster</td>
<td>1 x 800 HP</td>
</tr>
</tbody>
</table>

**GENERATING SETS**

<table>
<thead>
<tr>
<th>Generating Set</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency/Harbour Generator</td>
<td>1 x 150 kW (at 1800 RPM)</td>
</tr>
<tr>
<td>Fuel oil</td>
<td>1 x 250 kW (at 1800 RPM)</td>
</tr>
</tbody>
</table>

**DECK EQUIPMENT**

<table>
<thead>
<tr>
<th>Deck equipment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LP hydraulically driven towing winch</td>
<td>300 t</td>
</tr>
<tr>
<td>Tugger winches</td>
<td>2 x 10 t</td>
</tr>
<tr>
<td>Stern roller</td>
<td>400 t / ø2,5 m, length 4,0 m</td>
</tr>
<tr>
<td>Shark jaws &amp; towing pins</td>
<td>1 set</td>
</tr>
<tr>
<td>Deck crane</td>
<td>1 x electro-hydraulic knuckle arm 2 t/10 m</td>
</tr>
</tbody>
</table>

**CARGO PUMPS**

<table>
<thead>
<tr>
<th>Cargo pumps</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel oil</td>
<td>1 x 150 m³/h @ 9 bar el. dr.</td>
</tr>
<tr>
<td>Fresh water</td>
<td>1 x 150 m³/h @ 9 bar el. dr.</td>
</tr>
<tr>
<td>Ballast/Drill Water</td>
<td>1 x 150 m³/h @ 9 bar el. dr.</td>
</tr>
<tr>
<td>Liquid Mud</td>
<td>3 x 150 m³/h @ 7 bar el. dr.</td>
</tr>
</tbody>
</table>

**DESIGN**

The vessels have been built according to the project NED 8167L AHTS prepared by NED – Naval Engineering & Design (presently Remontowa Marine Design & Consulting).

**OWNER**

Marinavi Offshore SPA

**YEAR OF DELIVERY**

2010
**B844/11-14,17,18** ANCHOR HANDLING / TOWING / SUPPLY VESSELS

**VESSELS’ NAMES**
- B 844/11 – “Reg McNee Tide”
- B 844/12 – “Tommy Sheridan Tide”
- B 844/13 – “Keith Lousteau Tide”
- B 844/14 – “William R Croyle II”
- B 844/17 – “Netherland Tide”
- B 844/18 – “Marty Quist Tide”

**CLASS**
ABS +A1 (E), Offshore Support Vessel, +AMS, +DPS-2, +FFV Class 1, +ACCU.

**MAIN PARTICULARS**
- Length over all: 70,00 m
- Length b.p.: 66,60 m
- Breadth moulded: 15,50 m
- Depth to 1st Deck: 6,60 m
- Design draught: 5,10 m
- Bollard pull: 155 Mt
- Deadweight: 2020 t
- Complement: 28+1 persons

**TANKS’ CAPACITIES**
- Ballast/Drill Water: 885,00 m³
- Fresh & Potable Water: 100,00 m³
- Fuel Oil: 730,00 m³
- Liquid Mud: 485,00 m³
- Dry Bulk: 194,00 m³

**PROPULSION**
- Main Engine: 2 x 5060 kW (at 900 RPM)
- Gearbox: 2 x 165 RPM, 5,45:1
- Shaft Line with Propeller: 2 x CPP, ø3,7 m in nozzles
- Shaft Generators: 2 x 1740 kW (at 1800 RPM)
- Bow Thruster: 2 x 800 HP
- Stern Thruster: 1 x 800 HP

**GENERATING SETS**
- Generating Set: 2 x 250 kW (at 1800 RPM)
- Emergency/Harbour Generator: 1 x 150 kW (at 1800 RPM)

**DECK EQUIPMENT**
- LP hydraulically driven towing winch: 350 t
- Tugger winches: 2 x 10 t
- Stern roller: 400 t / ø2,5 m, length 4,0 m
- Shark jaws & towing pins: 2 sets
- Deck crane: 1 x electro-hydraulic knuckle arm 2 t/10 m

**CARGO PUMPS**
- Fuel oil: 1 x 150 m³/h @ 9 bar el. dr.
- Fresh water: 1 x 150 m³/h @ 9 bar el. dr.
- Ballast/Drill Water: 1 x 150 m³/h @ 9 bar el. dr.
- Liquid Mud: 3 x 150 m³/h @ 7 bar el. dr.

**DESIGN**
The vessels have been built according to the project NED 8167 AHTS prepared by NED – Naval Engineering & Design (presently Remontowa Marine Design & Consulting).

**OWNER**
Tidewater Marine LLC

**YEAR OF DELIVERY**
2007–2010

**Bulk Handling System**
- 2 x bulk mud compressor each 1100 m³/h @ 5,5 bar
VESSELS’ NAMES
B 844/15 – “Waterbuck”
B 844/16 – “Reedbuck”
B 844/19 – “Bushbuck”

CLASS
ABS +A1 (E), Offshore Support Vessel, +AMS,
+DPS-2, +FFV Class 1, +ACCU

MAIN PARTICULARS
Length over all  70,00 m
Length b.p.  66,60 m
Breadth moulded  15,50 m
Depth to 1st Deck  6,60 m
Design draught  5,10 m
Bollard pull  155 Mt
Deadweight

B844 / 15 / 16 / 19 1940 / 1921 / 1860t

Complement
B844/ 15 / 16 / 19 28+1 / 33 / 39 persons

TANKS’ CAPACITIES
Ballast/Drill Water 885,00 m³
Fresh & Potable Water 100,00 m³
Fuel Oil 730,00 m³
Liquid Mud 485,00 m³
Dry Bulk 194,00 m³

PROPULSION
Main Engine 2 x 5060 kW (at 900 RPM)
Gearbox 2 x 165 RPM, 5,45:1
Shaft Line with Propeller 2 x CPP, ø3,7 m
in nozzles
Shaft Generators 2 x 1740 kW (at 1800 RPM)
Bow Thruster 2 x 800 HP
Stern Thruster 1 x 800 HP

GENERATING SETS
Generating Set 2 x 250 kW (at 1800 RPM)
Emergency/ Harbour Generator 1 x 150 kW
(at 1800 RPM)

DECK EQUIPMENT
LP hydraulically driven towing winch 350 t
Tugger winches 2 x 10 t
Stem roller 400 t / ø2,5 m, length 4,0 m
Shark jaws & towing pins 1 set
Deck crane 1 x electro-hydraulic knuckle
arm 2 t/10 m

CARGO PUMPS
Fuel oil 1 x 150 m³/h @ 9 bar el. dr.
Fresh water 1 x 150 m³/h @ 9 bar el. dr.
Ballast/Drill Water 1 x 150 m³/h @ 9 bar el. dr.
Liquid Mud 3 x 150 m³/h @ 7 bar el. dr.

Bulk Handling System 2 x bulk mud compressor
each 1100 m³/h @ 8 bar

DESIGN
The vessels have been built according to the project
NED 8167 AHTS prepared by NED – Naval Engineering & Design (presently Remontowa Marine Design
& Consulting).

OWNER
Edison Chouest Offshore Inc.

YEAR OF DELIVERY
2010
Two last vessels have been upgraded to ROV Support function.
B844/20,21 ANCHOR HANDLING / TOWING / SUPPLY VESSELS

**VESSELS’ NAMES**
B 844/20 – “Sea Vaillant”
B 844/21 – “Sea Victor”

**CLASS**
ABS +A1 (E), Offshore Support Vessel, +AMS, +DPS-2, +FFV Class 1

**MAIN PARTICULARS**
- Length over all: 70.00 m
- Length b.p.: 66.60 m
- Breadth moulded: 15.50 m
- Depth to 1st Deck: 6.60 m
- Design draught: 5.10 m
- Bollard pull: 120 Mt
- Deadweight: 2113 t
- Complement: 28+1 persons

**TANKS’ CAPACITIES**
- Ballast/Drill Water: 816.00 m³
- Fresh & Potable Water: 99.00 m³
- Fuel Oil: 828.00 m³
- Liquid Mud: 475.00 m³
- Dry Bulk: 194.00 m³

**PROPULSION**
- Main Engine: 2 x 3460 kW (at 900 RPM)
- Gearbox: 2 x 165 RPM, 5.45:1
- Shaft Line with Propeller: 2 x CPP, ø3.4 m in nozzles
- Shaft Generators: 2 x 1740 kW (at 1800 RPM)
- Bow Thruster: 2 x 800 HP
- Stern Thruster: 1 x 800 HP

**GENERATING SETS**
- Generating Set: 2 x 250 kW (at 1800 RPM)
- Emergency/Harbour Generator: 1 x 150 kW (at 1800 RPM)

**DECK EQUIPMENT**
- LP hydraulically driven towing winch: 300 t
- Tugger winches: 2 x 10 t
- Stern roller: 400 t / ø2.5 m, length 4.0 m
- Shark jaws & towing pins: 1 set
- Deck crane: 1 x electro-hydraulic knuckle arm 2 t/10 m

**CARGO PUMPS**
- Fuel oil: 1 x 150 m³/h @ 9 bar el. dr.
- Fresh water: 1 x 150 m³/h @ 9 bar el. dr.
- Ballast/Drill Water: 1 x 150 m³/h @ 9 bar el. dr.
- Liquid Mud: 3 x 150 m³/h @ 7 bar el. dr.

**DESIGN**
The vessels have been built according to the project NED 8167L AHTS prepared by NED – Naval Engineering & Design (presently Remontowa Marine Design & Consulting).

**OWNER**
GulfMark Offshore Inc.

**YEAR OF DELIVERY**
2010
B852/1,2 MMC 887 CP PLATFORM SUPPLY VESSELS (PSV)

VESSLES’ NAMES
B852/1 – “Lewek Andes”
B852/2 – “Lewek Aquarius”

CLASS
+A1 (E), Offshore Support Vessel, +AMS, +Oil Recovery Capability Class 2, +ACCU, +DPS-2, +FFV

DESCRIPTION
MMC 887 CP vessels built according to MMC Ship Design & Marine Consulting design, are multipurpose offshore supply vessels with Anchor Handling function. They are equipped with fully redundant IMO Class 2 Dynamic Positioning System and are capable of satisfying general demands of the offshore industry such as carrying liquid mud, dry cargo, fuel, drill and fresh water in bulk and various deck cargo.

Structural stainless steel tanks equipped with hydraulically driven submerged pumps, fixed deck foam system and nitrogen as inert gas installation allow methanol and other dangerous goods to be carried in safe manner.

With their hybrid propulsion solution the vessels offer cost efficient operations with power booster enabling anchor handling and towing operations.

Another function of B852 series is performing standby rescue operations. This, combined with installed on-board FIFI Class 1 system and oil recovery capabilities, makes the vessels perfect in case of any emergency situation.

MAIN PARTICULARS

Length over all 87,90 m
Breadth mld. 18,80 m
Depth to main deck 8,00 m
Design draught 5,90 m
Speed 14,5 kn
Deadweight B852 / 1 / 2 5200 / 5500 t

TANKS’ CAPACITIES

Ballast/Drill Water 2150,00 m³
Fresh Water 565,00 m³
Potable Water 95,00 m³
Fuel Oil 965,00 m³
Liquid Mud 2077,00 m³
Dry Bulk 310,00 m³
Methanol 200,00 m³
ORO 470,00 m³

PROPOSITION

Main Engine 2 x 1900 kW (at 720 RPM)
Gearbox 2 x reduction gears with PTI driven by 2000 kW VFD control electric motor
Shaft Line with Propeller 2 x CPP of 3250 kW ø3,0 m in nozzles
Main Generating Set 2 x 2250 kW (at 1800 RPM)
ME Driven Shaft Generator 2 x 1900 kW (at 720 RPM)
Emergency/Harbour Generator 1 x 320 kW high speed

DECK EQUIPMENT

Anchor handling / Towing winch 1 x 190 t
Tugger winches 2 x 11 t
Shark jaws & towing pins 1 set of 200t SWL
Deck crane 1 electro-hydraulic telescopic boom 2 t/12 m

CARGO PUMPS

Fuel oil 1 x 100/20 m³/h @ 9 bar, two-speed el.
Fresh water 1 x 100/40 m³/h @ 9 bar, two-speed el.
Ballast/Drill water 2 x 100 m³/h @ 9 bar el. dr.
Liquid mud 3 x 150/75 m³/h @ 14/6,3 bar, two-speed el.
Liquid mud / Oro 1 x 100 m³/h @ 18 bar hydraulically driven

Methanol 2 x 75 m³/h @ 9 bar, hydraulic Bulk handling system 2 x dry bulk compressor each 1100 m³/h @ 5,6 bar

DESIGN
The vessels have been built according to the MMC 887 CP project prepared by MMC Ship Design & Marine Consulting.

OWNER
EMAS OFFSHORE (EZRA Holding)

YEAR OF DELIVERY
2012
B851/1-8 MMC 887 L PLATFORM SUPPLY VESSELS (PSV)

VESSELS’ NAMES
B851/1 – “Bongo”
B851/2 – “Kudu”
B851/3 – “Sable”
B851/4 – “Oryx”
B851/5 – “Eland”
B851/6 – “Gemsbok”
B851/7 – “Springbok”
B851/8 – “Wildebeest”

CLASS
+A1 (E), Offshore Support Vessel, +AMS, +Oil Recovery Capability Class 2, +ACCU, +DPS-2, +FFV Class 1

DESCRIPTION
MMC 887 L vessels, as longer versions of MMC 887, are perfect for worldwide services and are designed to meet highest operation demands with the most cost efficient solutions. The vessels are able to fulfill the general demands of the offshore industry such as carrying liquid mud, dry bulk and special products like methanol, pipes and various deck cargo, supplying services between shore base, drilling sites and other ships, firefighting (FFi 1) and oil recovering. The vessels are equipped with DP Class 2 Dynamic Positioning System, fully integrated VMS and, as Diesel-Electrics driven by innovative medium voltage (4,16 kV) ”current source inverter”, AFE Variable Frequency Drives.

MAIN PARTICULARS
<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length over all</td>
<td>92,65 m</td>
</tr>
<tr>
<td>Breadth mld.</td>
<td>18,80 m</td>
</tr>
<tr>
<td>Depth to main deck</td>
<td>7,40 m</td>
</tr>
<tr>
<td>Max. draught</td>
<td>6,05 m</td>
</tr>
<tr>
<td>Speed</td>
<td>14,3 kn</td>
</tr>
<tr>
<td>Deadweight</td>
<td>5470 t</td>
</tr>
<tr>
<td>Deck Load</td>
<td>2900 t</td>
</tr>
<tr>
<td>Complement</td>
<td>52 persons</td>
</tr>
</tbody>
</table>

TANKS’ CAPACITIES
<table>
<thead>
<tr>
<th>Description</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballast/Drill Water</td>
<td>2043,93 m³</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>510,75 m³</td>
</tr>
<tr>
<td>Potable Water</td>
<td>167,41 m³</td>
</tr>
<tr>
<td>Fuel Oil</td>
<td>1248,06 m³</td>
</tr>
<tr>
<td>Liquid Mud</td>
<td>1964,75 m³</td>
</tr>
<tr>
<td>Dry Bulk</td>
<td>415,80 m³</td>
</tr>
<tr>
<td>Methanol</td>
<td>429,40 m³</td>
</tr>
<tr>
<td>ORO</td>
<td>2409,00 m³</td>
</tr>
</tbody>
</table>

PROPLUTION
Azimuth Propeller 2 x 2000 kW controlled by VFD, AFE type
Forward Thrusters 1 x 910 kW – CPP tunnel thruster
1 x 800 kW – CPP retractable thruster

GENERATING SETS
Main Generating Set
Fuel oil 1 x 150 m³/h @ 9 bar, el.
Fresh water 1 x 150 m³/h @ 9 bar, el.
Ballast/Drill water 4 x 75 m³/h @ 6 bar, el. dr.
Liquid mud 3 x 150 m³/h @ 9 bar, el.
Transfer pumps 2 x 75 m³/h @ 14 bar
Methanol 2 x 75 m³/h @ 9 bar, hydraulic
Bulk handling system 2 x bulk cargo air compressor each 1134 m³/h @ 5,6 bar

DECK EQUIPMENT
Tugger winches 2 x 10 t el-hyd.
Deck crane 1 electro-hydraulic straight arm 3 t/10 m
Windlass/mooring winch 2 x 15,3 t pull, el-hyd.
Capstans 2 x 8 t pull, el-hyd.

CARGO PUMPS
Fuel pumps 1 x 150 m³/h @ 9 bar, el.
Fresh water pumps 1 x 150 m³/h @ 9 bar, el.
Ballast/Drill water pumps 4 x 75 m³/h @ 6 bar, el. dr.
Liquid mud pumps 3 x 150 m³/h @ 9 bar, el.
Transfer pumps 2 x 75 m³/h @ 14 bar
Methanol pumps 2 x 75 m³/h @ 9 bar, hydraulic
Bulk handling system 2 x bulk cargo air compressor each 1134 m³/h @ 5,6 bar

DESIGN
The vessels have been built according to the project MMC 887 L prepared by MMC Ship Design & Marine Consulting.

OWNER
Edison Chouest Offshore Inc.

YEAR OF DELIVERY
B851/1, 2, 3, 4, 5 – 2013
B851/6, 7, 8 – 2014
B850/1,2 MMC 887 CD PLATFORM SUPPLY VESSELS (PSV)

VEESL’S NAMES
B850/1 – “Highland Defender”
B850/2 – “Highland Guardian”

CLASS
+A1 (E), Offshore Support Vessel, +AMS,
+ Oil Recovery Capability Class 2, +ACCU,
+ DPS-2, +FFV Class 1, ENVIRO, UWILD, GP

DESCRIPTION
MMC 887 CD vessels are designed to meet highest operation demands with the most cost efficient solutions. Diesel Electric powered propulsion allows most cost efficient exploitation, reduction of fuel consumption and lower emission of NOx and SOx to the atmosphere. Working deck of 1000 m² enables carrying high-volume goods and makes the vessels the biggest ones in their class. Dynamic Positioning System Class 2 allows them to operate in worldwide sea areas, under any weather conditions.

MAIN PARTICULARS
- Length over all: 88,90 m
- Breadth mld.: 18,80 m
- Depth to main deck: 7,40 m
- Design draught: 5,90 m
- Speed: 14,3 kn
- Deadweight: 5100 t
- Deck: 1000 m²

TANKS’ CAPACITIES
- Ballast/Drill Water: 1767,00 m³
- Brine: 346,00 m³
- Potable Water: 950,00 m³
- Fuel Oil: 899,00 m³
- Liquid Mud: 2086,00 m³
- Dry Bulk: 400,00 m³
- Methanol: 346,00 m³
- Base oil: 227,00 m³

PROPELLION
- Azimuth Propeller: 2 x 2000 kW controlled by VFD, AFE type
- Forward Thrusters: 1 x 910 kW – CPP tunnel thruster
- 1 x 800 kW – CPP retractable thruster

GENERATING SETS
- Main Generating Set: 4 x 1700 kW (at 1800 RPM)
- Emergency/Harbour Generator: 1 x 350 kW high speed

DECK EQUIPMENT
- Tugger winches: 2 x 10 t
- Deck crane: 2 x electro-hydraulic 3 t/10 m

CARGO PUMPS
- Fuel oil: 1 x 150/20 m³/h @ 9/3 bar

TANKS’ CAPACITIES
- Ballast/Drill Water: 1 x 150/80 m³/h @ 9/2 bar
- Brine: 1 x 150/80 m³/h @ 9/2 bar
- Liquid Mud: 4 x 150 m³/h @ 14 bar
- Methanol: 2 x 75 m³/h @ 9 bar
- Bulk Handling System: 2 x compressor (1100 m³/h each)
- Dry Bulk: 5 x dry bulk tanks, 80 m³ each
- Fresh water: 1 x 150/80 m³/h @ 9/2 bar
- Ballast/Drill Water: 1 x 150/80 m³/h @ 9/2 bar
- Liquid Mud: 4 x 150 m³/h @ 14 bar
- Methanol: 2 x 75 m³/h @ 9 bar
- Bulk Handling System: 2 x compressor (1100 m³/h each)
- Dry Bulk: 5 x dry bulk tanks, 80 m³ each

DESIGN
The vessels have been built according to the project MMC 887 CD prepared by MMC Ship Design & Marine Consulting.

OWNER
Gulf Offshore NS Ltd. / GulfMark Offshore Inc.

YEAR OF DELIVERY
2013
B853 MMC 879 CD PLATFORM SUPPLY VESSELS (PSV)

DESCRIPTION
MMC 879 CD vessels are designed to meet highest operation demands with the most cost efficient solutions. Diesel Electric powered propulsion allows most cost efficient exploitation, reduction of fuel consumption and lower emission of NOx and SOx to the atmosphere. Working deck of 815 m² enables carrying high-volume goods while Dynamic Positioning System Class 2 allows them to operate in worldwide sea areas, under any weather conditions.

MAIN PARTICULARS
- Length over all: 79.45 m
- Breadth mld.: 16.80 m
- Depth to main deck: 7.40 m
- Design draught: 5.00 m
- Speed: 14.0 kn
- Deadweight: 4000 t
- Deck area: 815 m²

TANKS’ CAPACITIES
- Ballast/Drill Water: 1487.00 m³
- Brine: 522.00 m³
- Potable Water: 980.00 m³
- Fuel Oil: 1016.00 m³
- Liquid Mud: 1163.00 m³
- Dry Bulk: 300.00 m³
- Methanol: 194.00 m³
- Base oil: 514.00 m³

PROPULSION
- Azimuth Propeller: 2 x 2000 kW controlled by VFD, AFE type
- Forward Thrusters: 2 x 910 kW – CPP tunnel thruster

GENERATING SETS
- Main Generating Set: 4 x 1700 kW (at 1800 RPM)
- Emergency/Harbour Generator: 1 x 350 kW high speed

DECK EQUIPMENT
- Tugger winches: 2 x 10 t
- Deck crane: 2 x electro-hydraulic 3 t/10 m

CARGO PUMPS
- Fuel oil: 1 x 150/20 m³/h @ 9/3 bar
- Fresh water: 1 x 150/80 m³/h @ 9/2 bar
- Ballast/Drill Water: 1 x 150/80 m³/h @ 9/2 bar
- Liquid Mud: 4 x 150 m³/h @ 14 bar
- Methanol: 2 x 75 m³/h @ 9 bar
- Bulk handling system: 2 x compressor (1100 m³/h each)
- 5 x dry bulk tanks, 60 m³ each

DESIGN
The vessels have been built according to the project MMC 879 CD prepared by MMC Ship Design & Marine Consulting.

OWNER
Gulf Offshore NS Ltd. / GulfMark Offshore Inc.

YEAR OF DELIVERY
2013
**B842/1,2 MULTI-FUNCTION BUOY TENDERS**

**VESSELS’ NAMES**
B842/1 – „Pharos”  
B842/2 – „Galatea”

**CLASS**
The vessels’ hulls, machinery and electrical installations were built and installed under special survey in accordance with the Rules and Regulations of Lloyd’s Register of Shipping for notation: +100A1, +LMC, +UMS, CAC, DP(AA), MCM, NAV, IBS, LA, EP-BUOY & LIGHT TENDER

**MAIN PARTICULARS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length over all</td>
<td>84,00 m</td>
</tr>
<tr>
<td>Length b.p.</td>
<td>75,00 m</td>
</tr>
<tr>
<td>Breadth moulded</td>
<td>16,50 m</td>
</tr>
<tr>
<td>Depth to Main Deck</td>
<td>7,20 m</td>
</tr>
<tr>
<td>Design draught</td>
<td>4,30 m</td>
</tr>
<tr>
<td>Deadweight</td>
<td>1250 t</td>
</tr>
<tr>
<td>Bollard pull</td>
<td>32 Mt</td>
</tr>
<tr>
<td>Service speed</td>
<td>12,5 kn</td>
</tr>
<tr>
<td>Complement</td>
<td>30 persons</td>
</tr>
<tr>
<td><strong>TANKS’ CAPACITIES</strong></td>
<td></td>
</tr>
<tr>
<td>Oil fuel</td>
<td>300,00 m³</td>
</tr>
<tr>
<td>Lubrication/hydraulic oil</td>
<td>25,00 m³</td>
</tr>
<tr>
<td>Non potable water</td>
<td>140,00 m³</td>
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<tr>
<td>Potable water</td>
<td>170,00 m³</td>
</tr>
<tr>
<td>Water ballast</td>
<td>325,00 m³</td>
</tr>
<tr>
<td><strong>PROPULSION</strong></td>
<td></td>
</tr>
<tr>
<td>Diesel Electric</td>
<td>3 x 1376 kW, 2 x 688 kW</td>
</tr>
<tr>
<td>Azimuth Thrusters</td>
<td>2 x 1500 kW</td>
</tr>
<tr>
<td>Bow Thrusters</td>
<td>2 x 750 kW</td>
</tr>
<tr>
<td><strong>GENERATING SETS</strong></td>
<td></td>
</tr>
<tr>
<td>Diesel Generating Set</td>
<td>1 x 240 kW (at 1500 RPM)</td>
</tr>
<tr>
<td>Emergency Generating Set (Pharos)</td>
<td>1 x 300 kW</td>
</tr>
<tr>
<td>Emergency Generating Set (Galatea)</td>
<td>1 x 130 kW</td>
</tr>
<tr>
<td><strong>DECK MACHINERY</strong></td>
<td></td>
</tr>
<tr>
<td>Deck crane (buoy handling)</td>
<td>30 t / 22,5 m</td>
</tr>
<tr>
<td>Windlass</td>
<td>5 t / 18 m/min</td>
</tr>
<tr>
<td>Capstans</td>
<td>2 x 5 t</td>
</tr>
<tr>
<td>Towing winch BP</td>
<td>40 Mt (Galatea)</td>
</tr>
<tr>
<td>Work boats</td>
<td>1 x 9 m</td>
</tr>
<tr>
<td><strong>SURVEY EQUIPMENT</strong></td>
<td></td>
</tr>
<tr>
<td>Searchlight Sonar</td>
<td>90 kHz</td>
</tr>
<tr>
<td>Multi-Beam Echo Sounder</td>
<td>5-150 m / 300 kHz</td>
</tr>
<tr>
<td>Single-Beam Echo Sounder</td>
<td>32 m / 200 kHz</td>
</tr>
<tr>
<td><strong>ACCOMMODATION</strong></td>
<td></td>
</tr>
<tr>
<td>7 officer’s cabins and 23 crew cabins.</td>
<td></td>
</tr>
<tr>
<td><strong>DESIGN</strong></td>
<td></td>
</tr>
<tr>
<td><strong>OWNER</strong></td>
<td></td>
</tr>
<tr>
<td>British Owner Trinity House &amp; Northern Lighthouse Board</td>
<td></td>
</tr>
<tr>
<td><strong>YEAR OF DELIVERY</strong></td>
<td>2007</td>
</tr>
</tbody>
</table>
B101 CABLE LAYING VESSEL

CLASS
The vessel’s hull, machinery and equipment are to be constructed in accordance with the Rules and Regulations of Det Norske Veritas for notation: 1A1, E0, CLEAN DESIGN, CABLE LAYING VESSEL, NAUT AW, DYNPOS-AUTR, COMF-V(3)-C(3), BIS, SPS.

MAIN PARTICULARS
- Length over all: 95.3 m
- Length b.p.: 84.9 m
- Breadth moulded: 21.5 m
- Speed: 14.0 kn
- Cable’s carousels capacity: 4250 t
- Deadweight: 4700 t
- Complement: 60 persons

TANKS’ CAPACITIES
- Fuel oil: 1200.00 m³
- Fresh water: 650.00 m³
- Water ballast: 2400.00 m³

PROPULSION
- Diesel Electric: 4 x 1766 kW
- Azimuth Thrusters: 2 x 2200 kW
- Retractable / Swing up Azimuth Thruster: 1 x 880 kW
- Bow Thrusters: 2 x 1200 kW

GENERATING SETS
- Emergency diesel generator set: 163 kW

DECK EQUIPMENT
- Deck crane: 5 t/10 t x 24 m/15 m
- Provision crane: 2 t x 15 m
- Windlass: 2 x 10 t
- Mooring winches: 2 x 10 t

SPECIAL EQUIPMENT
- Launching and Recovery System for Trencher Remote Operated Vehicle;
- Launching and Recovery System for Work Remote Operated Vehicle;
- Cable Lay Systems.

DESIGN

OWNER
- Siem Offshore Rederi AS

YEAR OF DELIVERY
- 2016
OFFSHORE VESSELS & TUGS

B856 VS 4411 DF PLATFORM SUPPLY VESSEL (PSV)

CLASS
The vessel’s hull, machinery and equipment are to be constructed in accordance with the Rules and Regulations of Det Norske Veritas for notation: +1A1, Offshore Service Vessel+, Supply, SF, DYNPOS-AUTR, EO, GAS FUELLED, BIS, CLEAN DESIGN, COAT PSPC (B), COMF-V(3) & C(3), LFL*, NAUT OSV(A), DK (10t/m²) and HL (2.8), Olirec, Stand-by Vessel (S), Fire Fighter II.

MAIN PARTICULARS
Length over all 89.20 m
Length b.p. 80.40 m
Breadth moulded 19.00 m
Speed 14.6 kn
Cargo deck area 980 m²
Deadweight 5400 t
Complement 25 persons

TANKS’ CAPACITIES
LNG 230.00 m³
Fuel oil 950.00 m³
Fresh water 1000.00 m³
Ballast/Drill water 1900.00 m³
Liquid mud + Brine 1160.00 m³
Liquid mud 930.00 m³
Brine 800.00 m³
Methanol/Special products LFL* 345.00 m³
Dry bulk/Drill cutting 400.00 m³
Base oil 230.00 m³

PROPULSION
Dual Fuel Electric 2 x 2610 kW + 2 x 1408 kW
Propulsion Azimuth Thrusters 2 x 2200 kW
Retractable Azimuth Thruster 1 x 880 kW
Bow Tunnel Thrusters 2 x 1000 kW

GENERATING SETS
Emergency Diesel Generator Set 1 x 200 kW

DECK EQUIPMENT
Deck cranes 2 x 3 t/12 m
Windlass 2 x 12 t
Mooring winches 2 x 12 t
Tugger winches 2 x 10 t

CARGO PUMPS
Fuel oil/ORO 2 x 50-200 m³/h @ 9 bar, hyd.
Fresh water 2 x 200 m³/h @ 9 bar, el.
Special product 2 x 40-75 m³/h @ 8/9 bar, hyd.
Slop/ORO 2 x 0-100 m³/h @ 24/9 bar, hyd.
Liquid mud/ORO 2 x 0-100 m³/h @ 24/9 bar, hyd.
Brine/ORO 2 x 0-100 m³/h @ 24/9 bar, hyd.
Base oil 2 x 75/18 m³/h @ 9 bar, el.
Ballast/Drill water 2 x 200 m³/h @ 9 bar, el.
Drill cutting 6 x 0-30 m³/h @ 30 bar, hyd.
Dry bulk 2 x air compressor, 1656 m³/h @ 7 bar each.

DESIGN
Wärtsilä Ship Design in cooperation with Remontowa Marine Design & Consulting.

OWNER
Siem Offshore Rederi AS

YEAR OF DELIVERY
856/1 – 2015
856/2 – 2016
B857 ANCHOR HANDLING / TOWING / SUPPLY VESSEL

CLASS
DNV +1A1, SF, E0, OFFSHORE SERVICE VESSEL AHTS, DK(+), HL(2,5), CLEAN DESIGN, COMF V(3), NAUT OSV(A), DYNPOS AUTR, BWM-T, ICE 1C, OILREC, BIS, TMON

MAIN PARTICULARS
Length over all 87,30 m
Length b.p. 78,00 m
Breadth moulded 20,00 m
Depth to Main Deck 8,50 m
Design draught 5,80 m
Bollard pull 140 Mt
Deadweight 4200 t
Complement 23 + 28 persons

TANK CAPACITIES
Ballast/Drill water 2200,00 m³
Fresh & Potable water 615,00 m³
Fuel oil 750,00 m³

DECK EQUIPMENT
AHT Winch LP Hydraulic Driven 1 x 400 t
Iceberg Towing Winch 1 x 30 t
Anchor Windlass 2 x 18 t
Mooring Winches 2 x 10 t
Tugger Winches 2 x 15 t
Spare Wires Reels 2 x 10 t
Towing Line Storage Reel 1 set
Stern Roller 1 x 425 t / ø 2,5 m, length 4,0 m
Shark Jaws & Towing Pins 1 x 480 / 180 t
Safer Hose Operation System (SHOS) 1 set
Safer Wire Operation System (SWOS) 1 set
Deck Crane 1 x 10 t / 10 m

CARGO PUMPS
Fuel oil 2 x 250 m³/h @ 9 bar, hyd. dr.
Fresh water 2 x 250 m³/h @ 9 bar, hyd. dr.
Ballast/Drill water 1 x 250 m³/h @ 9 bar, hyd. dr.

DESIGN
The vessel to be built according to UT 782 WP project executed by Rolls-Royce Marine.

OWNER
Secunda Canada LP

YEAR OF DELIVERY
2016
B830/B848 HARBOUR TRACTOR TUG

VESSELS’ NAMES
B830 – “Taurus”
B848 – “Virtus”

CLASS
PRS + KM TUG III L3

DESCRIPTION
Single-deck tractor tug with two azimuth thrusters located under the hull in fore part, destined to work in harbours.

MAIN PARTICULARS

<table>
<thead>
<tr>
<th></th>
<th>Taurus</th>
<th>Virtus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length o.a.</td>
<td>30,00 m</td>
<td>30,00 m</td>
</tr>
<tr>
<td>Length waterline</td>
<td>28,80 m</td>
<td>28,80 m</td>
</tr>
<tr>
<td>Breadth moulded</td>
<td>10,80 m</td>
<td>10,50 m</td>
</tr>
<tr>
<td>Depth to main deck</td>
<td>3,95 m</td>
<td>3,95 m</td>
</tr>
<tr>
<td>Design draught</td>
<td>2,75 m</td>
<td>2,70 m</td>
</tr>
<tr>
<td>Draught max.</td>
<td>5,60 m</td>
<td>5,60 m</td>
</tr>
</tbody>
</table>

Bollard pull ahead: 42 t – 55 t
Speed: 11 kn – 12,6 kn
Complement: 5+1 persons – 4/5 persons

TANKS’ CAPACITIES

<table>
<thead>
<tr>
<th></th>
<th>Taurus</th>
<th>Virtus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel oil</td>
<td>100,00 m³</td>
<td>99,10 m³</td>
</tr>
<tr>
<td>Potable water</td>
<td>16,00 m³</td>
<td>15,80 m³</td>
</tr>
<tr>
<td>Ballast water</td>
<td>90,00 m³</td>
<td>55,30 m³</td>
</tr>
</tbody>
</table>

PROPULSION

<table>
<thead>
<tr>
<th></th>
<th>Taurus</th>
<th>Virtus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Engine</td>
<td>2 x 1230 kW (at 1600 RPM)</td>
<td>2 x 1765 kW (at 1800 RPM)</td>
</tr>
<tr>
<td>Azimuth Thruster</td>
<td>2 x Azimuth</td>
<td>2 x Azimuth</td>
</tr>
<tr>
<td>Thrusters including CPP</td>
<td>with ducted CPP</td>
<td>propeller FP</td>
</tr>
<tr>
<td>Generating Sets</td>
<td>2 x 85 kW</td>
<td>2 x 85 kW</td>
</tr>
</tbody>
</table>

MOORING EQUIPMENT

One (1) hydraulically driven capstan, located aft, locally controlled;
Four (4) double bollards;
Two (2) single bollards;
Two (2) rollers.

LIFE-SAVING EQUIPMENT

Two (2) inflatable life rafts in containers with hydrosyatic releases;
Two (2) complete life buoys with life/smoke buoys;
Six (6) survival suits;
Eight (8) life jackets.

TOWING EQUIPMENT

Hydraulically driven towing winch with two-section drum located aft of the deckhouse on the Main Deck;
Winch controlled either locally or remotely from the wheelhouse;
Double towing bollard with a towing chock, located aft of the winch;
Single towing bollard located on the main deck at the bow;
Towing chock in the bulwark at the bow.

NAVIGATION AND COMMUNICATION

GMDSS Sea Area A2 Radio Station.

DESIGN

The vessels have been built according to the project prepared by NED – Naval Engineering & Design (presently Remontowa Marine Design & Consulting).

OWNER

WUŻ – Shipping and Port Services Gdynia Co. Ltd.

YEAR OF DELIVERY

B830 – 2007 / B848 – 2009
B840/1,2 HARBOUR TUGS

VESSLE'S NAMES
B840/1 – “Saturn”  
B840/2 – “Uran”

CLASS
DNV +A1R4 Tug, Ice Class 1A, EO

DESCRIPTION
Single-deck tractor tug with two azimuth thrusters located under the hull in fore part, destined to work in harbours.

MAIN PARTICULARS
Length over all 19,00 m  
Breadth moulded 9,00 m  
Depth to Main Deck 3,80 m  
Design draught 4,20 m  
Speed 10 kn

TANKS’ CAPACITIES
Fresh Water 3,50 m³  
Fuel Oil 49,00 m³

PROPELLION
Main Engine 2 x 1050 kW (at 1600 RPM)  
Shaft Line with Propeller 2 x Intermediate Shaft  
2 x Azimuth Thruster

GENERATING SETS
Generating Set 1 x 66 kW (at 1500 RPM)

DECK EQUIPMENT
Deck crane 1 electro-hydraulic arm  
530 kg/4 m  
Windlass 1 x hydraulically driven  
Hydraulically towing winch 1 x aft – pull 35 t  
1 x fore – pull 30 t  
Towing hook 30 t  
Bollard 30 Mt

DESIGN
The vessels have been built according to the Owner’s principal design Class documentation prepared by NED – Naval Engineering & Design (presently Remontowa Marine Design & Consulting).

OWNER
CITYCOM OU Estonia

YEAR OF DELIVERY
2004–2005
B845 AZIMUTH STERN DRIVE TUG

VESSEL’S NAME
B845/1 – “Centaur II”

CLASS
PRS notation KM II L3 TUG

MAIN PARTICULARS
<table>
<thead>
<tr>
<th>Description</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length over all</td>
<td>30,30 m</td>
</tr>
<tr>
<td>Length in waterline</td>
<td>29,60 m</td>
</tr>
<tr>
<td>Breadth moulded</td>
<td>9,80 m</td>
</tr>
<tr>
<td>Depth to Main Deck</td>
<td>4,85 m</td>
</tr>
<tr>
<td>Design draught</td>
<td>3,65 m</td>
</tr>
<tr>
<td>Maximum draught</td>
<td>4,60 m</td>
</tr>
<tr>
<td>Deadweight</td>
<td>210 t</td>
</tr>
<tr>
<td>Bollard pull astern</td>
<td>44 t</td>
</tr>
<tr>
<td>Bollard pull ahead</td>
<td>45 t</td>
</tr>
<tr>
<td>Speed</td>
<td>13,3 kn</td>
</tr>
<tr>
<td>Complement (harbour/sea)</td>
<td>5/8 persons</td>
</tr>
</tbody>
</table>

TANKS’ CAPACITIES
<table>
<thead>
<tr>
<th>Type</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel oil</td>
<td>95,50 m³</td>
</tr>
<tr>
<td>Potable water</td>
<td>22,40 m³</td>
</tr>
<tr>
<td>Ballast water</td>
<td>46,70 m³</td>
</tr>
<tr>
<td>Foam</td>
<td>52,00 m³</td>
</tr>
</tbody>
</table>

PROPULSION
<table>
<thead>
<tr>
<th>Type</th>
<th>Power/Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Engine</td>
<td>2 x 1425 kW (at 1600 RPM)</td>
</tr>
<tr>
<td>Azimuth Thrusters</td>
<td>2 x Azimuth Thruster</td>
</tr>
<tr>
<td>Oil Burned Boiler</td>
<td>1 x 100 kW</td>
</tr>
<tr>
<td>Generating Sets</td>
<td>2 x 100 kW</td>
</tr>
</tbody>
</table>

MOORING EQUIPMENT
<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>One (1) hydraulic driven capstan, located aft, locally controlled; Eight (8) mooring chocks; Four (4) double bollards; Two (2) single bollards; Two (2) rollers.</td>
<td></td>
</tr>
</tbody>
</table>

LIFE-SAVING EQUIPMENT
Two (2) inflatable life-rafts in containers with hydrostatic releases;
Two (2) complete life-buoys with life-lines;
Two (2) complete life-buoys with life/smoke buoys;
Six (6) survival suits;
Eight (8) life jackets.

TOWING EQUIPMENT
<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulically driven towing winch with two-section drum located forward of the deckhouse; Hydraulically driven towing winch with two-section drum divided into service and storage sections located aft of the deckhouse; Both winches controlled either locally or remotely from the wheelhouse; Double towing bollard with a towing hook, located aft of the winch;</td>
<td></td>
</tr>
</tbody>
</table>

NAVIGATION AND COMMUNICATION
GMDSS Sea Area A2 Radio Station

DESIGN
The vessels have been built according to the project prepared by NED – Naval Engineering & Design (presently Remontowa Marine Design & Consulting).

OWNER
WUŻ – Shipping and Port Services Gdynia Co. Ltd.

YEAR OF DELIVERY
2007