



# Fi-Fi II - DP 1 anchor handling tug supply for deep water operations

## **GEONISIO BARROSO**

165 Metric ton bollard pull  
350 Metric ton line pull winch



This Rolls Royce Marine UT 722 Design vessel is fitted with class I DP and FiFi II systems and has storage capacities for recovered oil.

It is equipped for deep-water anchor-handling and towing with 6 working drums, consisting of 2 drums on the main winch and 4 drums on the secondary winch.

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14,410 bhp

### MAIN CHARACTERISTICS

Length overall: .....75.60 m.  
Length between pp: .....64.40 m.  
Breadth moulded: .....18.00 m.  
Depth main deck: .....8.00 m.  
Deadweight (approx) at 6.00 m draft: .1,580 t.  
(approx) at 6.60 m draft: .2,240 t.  
Bollard Pull: .....154 t/165 t (max.)  
Gross tonnage: .....3,360.

### REGISTRATION

Type: .....AHTS 12000. DP1 supply vessel Rolls Royce Marine design UT 722.  
Owner: .....DELBA MARÍTIMA NAVEGAÇÃO SA.  
Delivery: .....2004.  
Builder: .....FELS SETAL (BRAZIL).  
Flag: .....BRAZILIAN.  
Classification: DNV.  
✱ 1A1-TUG-Supply Vessel-SF-EO-DYNPOS AUT-FIFI II-OIL REC-TMON.

### PERFORMANCE-CONSUMPTION (MDO)

Maxi speed: .....40 t/day at 16 knots.  
Cruising speed: .....30 t/day at 13 knots.  
Port consumption: .....3 t/day.

### ACCOMMODATION

- Fully air-conditioned.
- Accommodation for 30 persons composed of:
  - 6 x single cabins, 12 x 2 men cabins.
- 2 offices, 1 hospital, 1 mess rooms, 2 day rooms, laundry, galley, change room, provision room.

### PROPULSION - MACHINERY

- **Main diesel engines:** 2x 5,300 kW at 750 rpm, BERGEN BVM12.
- **Reduction:** 2 gear boxes, 750/160 rpm, 2 PTO.
- **Shaft generators:** 2x2,800 kVA at 1,200 rpm, 440 V/60 Hz.
- **Auxiliary generators:** 2x390 kVA at 1,800 rpm, 440 V/60 Hz.
- **Emergency generator:** 1x 106 kVA at 1,800 rpm, 440 V/60 Hz.

### THRUSTERS

- **Main propellers:** 2x with CPP (diameter: 3,900 mm).
- **Tunnel thruster forward:** 1x 883 kW electric driven.
- **Tunnel thruster stern:** 1x 883 kW electric driven.
- **Azimuth thruster forward:** 1x 1,120 kW electric driven.
- **Rudders:** 2 independent flap rudders.

### DECK EQUIPMENT

#### **6 drums Towing and Anchor Handling Winches, consisting of:**

- **Main winches:** 1 waterfall type: Brattvaag BSL 350W/SL 350W low pressure hydraulic.  
2 drums each specified as follows: diameter 1.50 m x 3.10m length + 1.10 m socket compartment.
  - Wire capacity: .....5,072 m of 3".
  - Gypsies: 2x 3" and 2x 3<sup>3/4</sup>".
  - Dynamic braking on first layer: .....400 t.
  - Hoisting on first layer: .....350 t at 0-10,5 m/min.  
.....88 t at 0-15,6 m/min.
- **Secondary winches:** Brattvaag ALM 63125U comprising 4 drums specified as follows: diam. 1.50x 3.50 m length + 1.10 m Socket compartment.
  - Wire capacity: .....800 m of 8".
  - Dynamic braking on first layer: .....155 t.
  - Hoisting on first layer: .....125 t at 0-14 m/min.
- **Tugger winches:** 2x 15 t at 0-21m/min.
- **Capstans:** 2x 11 t at 0-17 m/min.
- **Twin stern rollers:** diam. 3.50 x (3.00+3.00 m) length SWL 500 t.
- **Deck/chain handling support crane:** 3.3 t at 8 m.
- **Deck-provision crane:** 5 t. at 16 m, hydraulic.
- **Life boat:** 1 MOB boat with davit, life rafts with equipment.
- **FIFI II:** 2 pumps 3,600 m<sup>3</sup>/h each, 2 monitors 3,600 m<sup>3</sup>/h each.
- **Windlass:** 1.

### CAPACITIES

Cargo deck area: .....15.20 x 30.20 m .  
Deck cargo: .....800 t.  
Cargo chain lockers (comprising 4 of circular lockers): 560 m<sup>3</sup>  
Fuel oil cargo: .....810 m<sup>3</sup>  
Fuel oil domestic : .....130 m<sup>3</sup>  
Oil recovery: .....1,150 m<sup>3</sup>  
Fresh water cargo: .....830 m<sup>3</sup>

### ELECTRONICS

- 2 radars,
- 1 gyrocompass system with repeaters,
- 1 echo sounder,
- 1 speed log,
- 1 autopilot,
- 1 GPS,
- 1 DGPS (to DP application),
- 1 GLONASS (to DP application),
- 1 radio system compliant with GMDSS A3 rules + VHF,
- 2 Inmarsat C,
- 1 mini M,
- Telex over SSB,
- Globalstar communication system (data/e-mail/voice),
- 1 weather fax.

### DP SYSTEM & JOYSTICK SYSTEM

- 1 DP system (class I) comprising the following position reference systems:
  - 1 DGNSS (combined GLONASS and DGPS),
  - 1 FANBEAM.
- 1 Joystick system.

### ALARM & MONITORING SYSTEM

- 1 UMAS V system control.

### OTHERS

- Passive Roll Reduction System.

(All particulars believed to be correct but not guaranteed).

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