REVERSED STERN DRIVE TUG 2513

*BIS VIRIDIS*

**GENERAL**

Yard number 515005
Basic functions Towing and mooring operations
Classification Bureau Veritas
I TUG MACH Coastal Service
AUT UMS INWATERSURVEY COMF-NOISE 3, COMF-VIB 3
Incl. IMO III EAIPP certificate
Ø Escort Tug
Ø Fire Fighting Ship 1
Ø Water spray
Ø Lloyd’s Register

**DIMENSIONS**

Length overall 24.73 m
Beam overall 13.13 m
Depth at sides 4.95 m
Draught aft 5.50 m
Displacement 525 t

**PERFORMANCES**

Bollard pull ahead 75.0 t
Bollard pull astern 70.0 t
Speed ahead 12.9 kn
Speed astern 12.6 kn

**AUXILIARY EQUIPMENT**

Generator set 2x Caterpillar C4.4 TA, 81 kVA, 400 V, 50 Hz
Generator set 2x Caterpillar C4.4 TA, 94 kVA, 440 V, 60 Hz
General service pumps 2x Azcue CA 50/3A 20 m³/h at 2.35 bar
Bilge water pump Azcue CA 32/0.5 3.6 m³/h at 1.1 bar
Fuel pump Azcue BR-41-10 12 m³/h at 1 bar
Fuel oil purifier 2x CJC, PTU3 27/31 3x FA/BLA 27/27
Cooling system Closed box cooling system
Fresh water pressure set Azcue MO-31/10
Hydraulic system Double main engine driven pumps
Ø Sewage treatment plant Tecnomicor Emcor 20
Ø Oil pollution control Dispensant pumpset with two spray booms
Ø Fill set Diesel driven pump 600, 1200, 2400 or Ø with water spray
Ø Fill monitor 1x 600, 1x 1200 or 2x 1200 m³/h, water/foam

**DECK LAY-OUT**

Anchor 1x 360 kg Pool (High Holding Power)
Anchor winch Hydraulic 10 m/min
Towing winch Hydraulically driven split drum 31 ton pull up to 11 m/min, reduced pull up to 38 m/min, 175 ton brake
Ø Towing hook SWL 100 ton
Fendering Cylinder + block bow fender, D-fender side/aft and Ø tyre fendering

**ACCOMMODATION**

For 4 (Ø 6) persons, completely insulated and finished with durable modern linings, sound absorbing ceiling in the wheelhouse and floating floors. Air-conditioned wheelhouse, accommodation and switchboard room. Accommodation above main deck with a captain’s cabin, chief engineer’s cabin, one double crew cabin, pantry, mess/dayroom and sanitary facilities. The superstructure is mounted resiliently to reduce noise levels.

**NAUTICAL AND COMMUNICATION EQUIPMENT**

Searchlight 1x Norseligh, 2000 W + Ø 1x Norseligh 2000 W
Radar system 1x Furuno FAR-1518-BB + Ø 1x Furuno FAR-1518-BB
Compass Cassens & Plath Reflecta 11
Ø Gyro compass Anschütz Standard 22 Compact
Autopilot Simrad AP-70
Satellite compass/GPS Simrad GN70/HS80A
Echosounder Furuno FCV-628 or Ø Furuno FE-800
Speed log Furuno DS-80
VHF 2x Sailor 6222 + Ø 1x Sailor 6215
VHF hand-held Jotron TR-20
Ø UHF Motonica DM400
Navtex Furuno NX-700
AIS Furuno FA-170
Ø SSB Furuno FS-1575
Ø LRIT Furuno Felcom 19
EPIRB Jotron Tron-60S
Sart Jotron Transar20
Anemometer Gill Instruments GMX 500

**TANK CAPACITIES**

Fuel oil 77.4 m³
Fresh water 10.2 m³
Bilge water 6.0 m³
Sewage 6.0 m³
Dirty oil 2.5 m³
Lubrication oil 2.5 m³
Urea 3.0 m³
Ø Foam 12.2 m³
Ø Dispersant 3.3 m³

**PROPULSION SYSTEM**

Main engines 2x MTU 16V 4000 M63L-1A
Total power 4480 bkw (6008 bhp) at 1800 rpm
Thrusters Rolls Royce US 255
Propeller diameter 2700 mm
Forced ventilation 60.000 m³/h
Exhaust emission IMO Tier III compliant

**PAINTING**

Epoxy paint system

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