



AZIMUTH STERN DRIVE TUG 2310

"TOIA"

GENERAL

Yardnumber	512918
Delivery date	September 2016
Basic functions	Towing and mooring
Classification	Bureau Veritas I * HULL * MACH Tug Unrestricted Navigation AUT UMS Incl. tonnage and loadline certificate
Flag	New Zealand
Owner	Port Nelson Limited

DIMENSIONS

Length overall	22.73 m
Beam overall	10.43 m
Depth at sides	4.50 m
Draught aft	4.62 m
Displacement	385 t

TANK CAPACITIES

Fuel oil	59.7 m ³
Fresh water	7.8 m ³
Sewage	2.9 m ³
Dirty oil	1.9 m ³
Lubrication oil	1.9 m ³
Bilge water	0.9 m ³
Lub. oil (auxiliaries)	0.9 m ³

PERFORMANCES

Bollard pull ahead	50.4 t
Bollard pull astern	49.8 t
Speed ahead	12.7 kn
Speed astern	12.2 kn

PROPULSION SYSTEM

Main engines	2x Caterpillar 3512C TA HD+/C
Total Power	3000 kW (4023 bhp) at 1600 rpm
Azimuth thrusters	Rolls Royce US 205 MK 1
Clutches (on-off type)	Rolls Royce "Built in" type
Propeller diameter	2200 mm
Forced ventilation	50.000 m ³ /h

AUXILIARY EQUIPMENT

Generator sets	2x Caterpillar C4.4T, 230/400 V, 64.5 kVA, 50 Hz
Bilge pumps	2x Sterling SIHI AKHA 5101, 20 m ³ /h
Fuel pumps	2x Sterling AOHA 3101, 4.5 m ³ /h
Fuel filters	2x Coalester filters incl. water separator
Cooling system	Box cooling + anti-growth system
Hydraulic system	One hydraulic pump on each main engine

DECK LAY-OUT

Anchors	2x 360 kg Pool (High Holding Power)
Anchor/towing winch	Hydraulically driven split drum, pull 18 ton at 11 m/min and slack rope at 33 m/min, 130 ton brake
Capstan	3 ton at 15 m/min. Electrically driven
Towing hook aft	Mampaey, SWL 650 kN
Fendering	Cylindrical rubber bow fender above W-fender, rubber fender at sides and cylindrical fenders aft

ACCOMMODATION

Accommodation for 4 persons, completely insulated and finished with durable modern linings, acoustical Dampa ceiling in the wheelhouse and floating floors. Air-conditioned accommodation with one cabin above main deck and two cabins below deck, galley/mess, sanitary facilities and switchboard room.

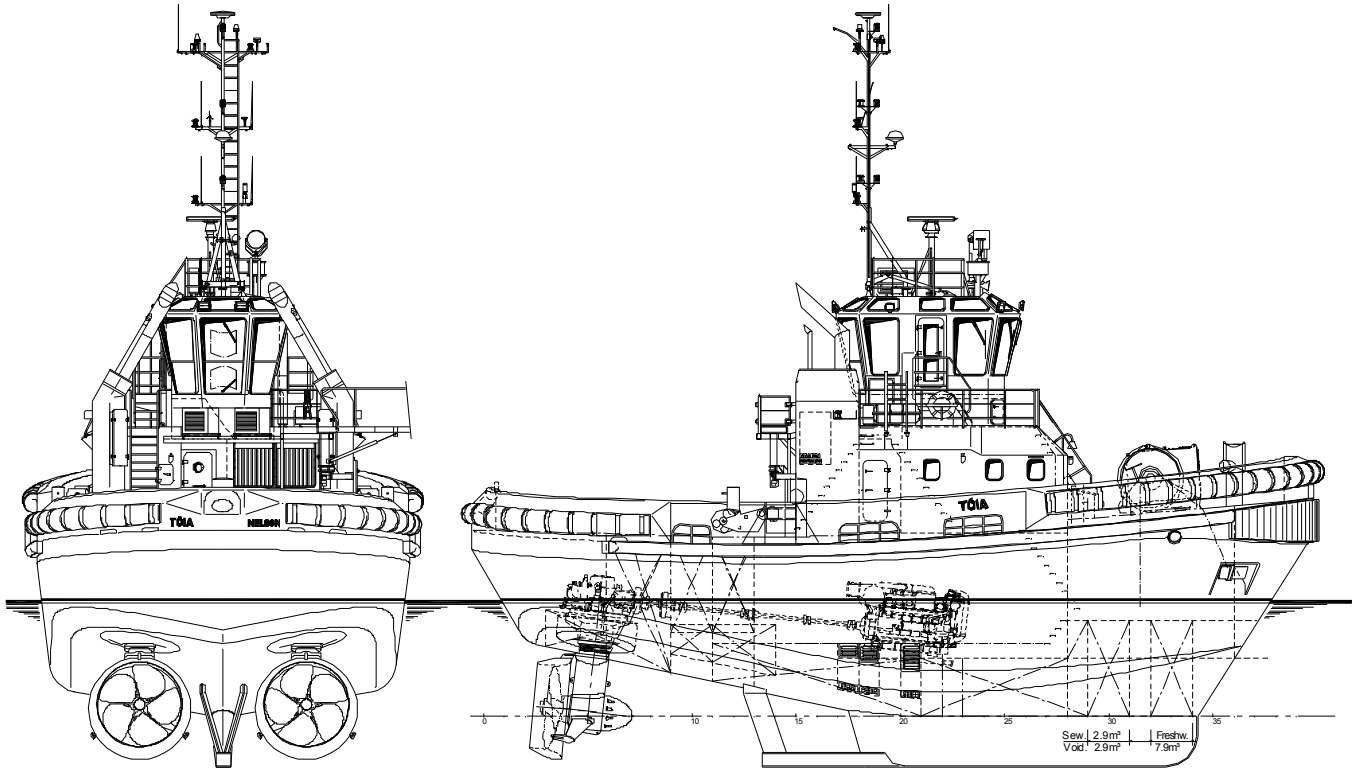
NAUTICAL AND COMMUNICATION EQUIPMENT

Searchlight	Pesch 1000 W
Radar systeem	Furuno FAR 2117
Compass	Magnetic Kottler
Satellite compass	Furuno SC-50
Autopilot	Simrad AP-70
GPS	Furuno DGPS-170
Echosounder	Furuno LS-6100
VHF Radio telephone	2x Sailor 6222, one with DSC
VHF hand-held	2x Jotron, Tron TR-20
Navtex	Furuno NX-700A
AIS	Furuno FA-150
Anemometer	Windsonic OMC 115
EPIRB	Jotron Tron 60S
SART	Kannad Rescuer 2 Sart

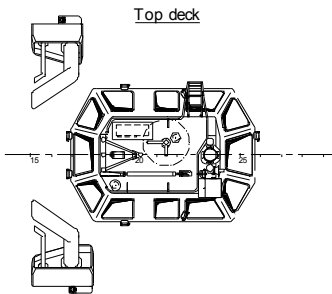
DAMEN

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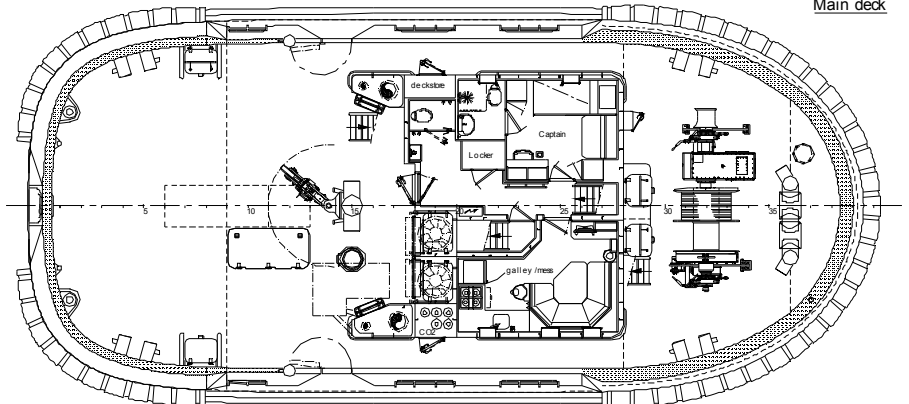
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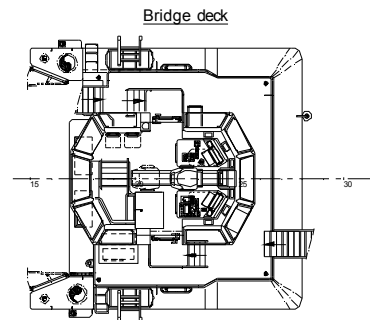
Main deck



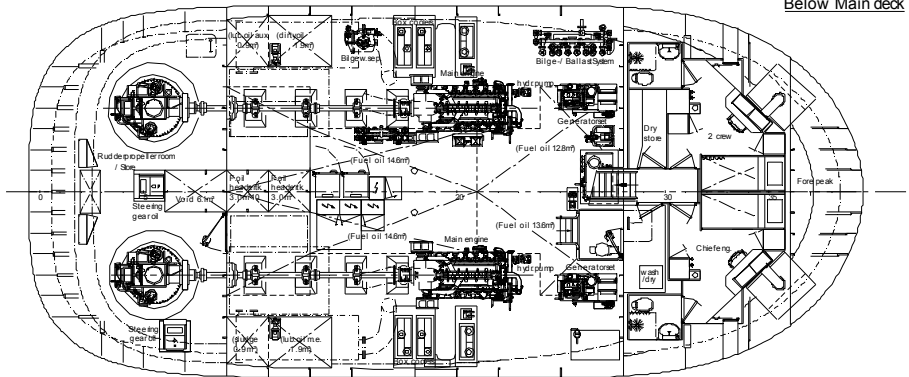
Top deck



Below Main deck



Bridge deck



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