

5150BHP UTILITY / TOWING TUG



Specifications

Length: 50.00 m

Breadth: 12.60 m

Depth: 5.75 m

Designed 4.50 m

Draft:

Deck 5 T / M2

Strength:

GRT / NRT: 1022 / 306

Deadweight: 700 tons @
4.8m max.
draft (approx.)

General Specifications

GENERAL

Port of Registry/Flag	Singapore
Class	ABS
Notation	+A1, Towing Vessel (E), +AMS
Built	2013 / Cheoy Lee Shipyards Ltd, Hongkong

CAPACITIES:

Fuel Tank	620m ³ (approx.)
Fresh Water	220m ³ (approx.)
Deck Cargo Area	220m ² (22m x 10m)

SPEED & BOLLARD PULL

Speed	12 knots @ loaded draft of 4m
Total Bollard Pull	66.47 MT @ 100% MCR

ACCOMMODATION

Cabins	4x4 - berth cabin = 16men 3x2- berth cabin = 6 men 2x1 - berth cabins = 2 men
Total Complement	24 men

MACHINERY & DECK EQUIPMENT

Main Engines	Yanmar 6EY26; 2 x 2610 BHP @ 750 RPM; 4 stroke medium speed; Continuous HP @ 5220
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Gearbox	1x Reduction Gear; Gear ratio to match engine for appropriate RPM
Generators	3 x 350kW output Caterpillar C18 @ 415V 3Ph 50Hz
Emergency Generator	1 x 82kW output Caterpillar C4.4 emergency/ harbour gen set; Starting Battery to be provided
Propellers	2x 4-bladed @ dia 2650mm ;Berg CPP in fixed nozzles
Bow Thruster	4.5 tons thrust controllable pitch; Electrical- driven
Fuel Oil Transfer Pump	2x Horizontal Gear pumps @ 10m ³ /hr @ 20 mwc; 415V/3Ph/50Hz; Cast iron body with alloy steel rotor and shaft
Bilge & Ballast Pump	1x Horizontal Self Priming centrifugal pump @ capacity of 70m ³ /hr @ 50mwc. 415V/3Ph/50Hz
FW Pressure Set	1 complete set @ 1 KW motor; 2800 RPM ; 415V/3/50HZ. 1x Pressure tank @ 300 litres with maximum working pressure 30-40PSI
SW Pressure Set	1 complete set @ 1 KW motor; 2800 RPM ; 415V/3/50HZ. 1x Pressure tank @ 300 litres with maximum working pressure 30-40PSI

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*** Owners reserved the right to amend the specifications without notification.*

General Specifications

Pressure Set Standby Pump	1 complete set @ 1 KW motor; 2800 RPM ; 415V/3/50HZ. 1x Pressure tank @ 300 litres with maximum working pressure 30-40PSI	Towing/ Anchor Handling	1 x electro-hydraulic waterfall type double drum towing/anchor. Brake holding capacity @ 180 tonnes. Pull/Speed: 75t x 8m/min (1st speed)
Sludge Transfer/Dirty Oil Pump	1x Electric driven gear pump or horizontal positive displacement type screw pump; 5m ³ /hr @ 45m head	Winch	Brake holding capacity @ 180 tons
Oily Bidge Separator	1x OWS with capacity 0.5m ³ /hr @ 4kg/cm ²	Towing Wires	2 x 1000m 52mm dia wire rope
SW Cooling Pump	1 unit	Tugger Winch	2x electro-hydraulic, each @ 10tonnes @ 12m/min . Each winch completed with 1x rope drum capacity for 150m length wire & 1 warping head @ 30m/min
Air Compressors	2x 2 stage compressors with each capacity 25m ³ /hr FAD x 30kg/cm ² ; 415V/3Ph/50Hz		1 set x 200 tons SWL
Steering Gear	2x independent electro-hydraulic steering gear; 8t.m torque capacity @ 2x 45 deg rudder angle	Towing Pins, Shark Jaw Capstans Stern Roller	2 x 5 tons at 15m/min 1 x 120 tons SWL , 3.5m x 1.5m dia
Sewage Treatment Plant	1unit suitable for 24men capacity	Anchor Windlass	Electro-hydraulic, cable lifter @ 6 tons
Cargo Oil Pump	1x gear pump; 70m ³ /hr @ 50m head; 415V/3Ph/50Hz	Bow winch	Bow winch pull of 10 tons; min brake holding 100 tons
Lub Oil Purifier	1x Electrical centrifugal oil purifier, capacity about 1200litres/hr	Deck Crane	1 x electro-hydraulic knuckle boom crane 2 tons @ 9m outreach
Fuel Oil Purifier	1x 1200lts/hr	Towing Drum Capacity Bollards	1000m x 52mm of FSWR 10x 10"NB, Sch 80 pipe double bollards. 1x 300NB, sch 80 pipe cruciform bollard
Anchor	2x high holding power @ approxi 970kg. AC-14 totally recessed		
Chain Cables	2 off 550m x 38mm dia. Grade 2, high strength steel (stud link)	Mooring Pipes	11x mooring pipes 1x electro-hydraulic with drum capacity for 1000m length of tow 52mm dia wire. Pull of 10 tonnes @ 20m/min local operation
Mooring Lines	4 x 140m long; minimum 10 tonnes breaking strength	Deck Reel	

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FIRE FIGHTING EQUIPMENTS

Fireman's Outfit	4 complete sets
Fire Blanket	2 units; provided in engine room and galley
Fire Axe	2units
External Fire-fighting	2x seawater fire pump 1500m ³ /hr @ 14kg/cm ² 2x Fire Monitors 1200m ³ /hr (foam/water) remote controlled
CO₂ system	1 unit consisting gas bottles c/w quick operated valves and auto alarms to be provided for engine room fire and Bow Thruster room fighting
G.S & Fire Pump	1unit
Emergency Fire Pump	1 unit; 25m ³ /hr @ 45mwc

LIFE SAVING EQUIPMENTS

Inflatable Liferafts	4 units
Lifebuoys	8 units ; 4x lifebuoys @ 90 feet buoyancy line & 4x lifebuoys @ 90 feet buoyancy line and self- igniting electric lights & 2x smoke signals
Lifejackets	27 units
Pyrotechnics	12 units; 2x orange smoke signals each @ 120 seconds discharge time and waterproof 1x 6men Rescue boat c/w 25HP outboard engine and approved gravity type davit to be provided
Rescue Boat	1 unit
Line Throwing Apparatus	2unit @ 8mm handle
Boat Hooks	1x 6men semi-rigid or rigid
Work Boat	work boat @ 40HP outboard motor to be provided

NAVIGATION & COMMUNICATION EQUIPMENT


VHF-Radio Telephone	2units with 25W remote handsets
DSC Watch Keeping Receiver	1 unit
Inmarsat "C"	1 unit
Navtex Receiver	1 unit
EPIRB	1 unit
Watch Keeping Receiver Unit	1 unit
X-Band Radars	2 units
Speed Log System	1 unit
Gyro-Compass	1 unit
Gyro-Repeaters	3 units
Auto Pilot	1 unit
6 Inch reflector type Magnetic Compass	1 unit
GPS	1 unit
Echo Sounder	1 unit
Walkie Talkie	3 units
Intercom System	1 unit

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LENGTH O. A.	49.95m
LENGTH W. L.	48.60m
LENGTH B. P.	43.60m
BEAM MLD.	12.60m
DEPTH MLD.	5.75m
DRAFT DESIGNED	4.50m
SCANTLING DRAFT	4.80m
COMPLEMENT	24 MEN
FUEL OIL	653 m ³ (approx.)
POTABLE WATER	150 m ³ (approx.)



REV	MODIFICATION			BY	DATE
SHIP:					
50M TOWING/ANCHOR HANDLING TUG					
TITLE:					
General Arrangement					
ORDER		SHIP NAME:			
CLASS		TARD NO.:		SDS4	
DELIVERY DATE:		TMD NO.:			
		PORT OF REGISTRY:			
 WARTSILA SHIP DESIGN SINGAPORE PTE. LTD 14 BENOI CRESCENT, SINGAPORE 628177 TEL: (65) 6562-1138 FAX: (65) 6562-1238, E-MAIL: ShipDesign.Singapore@wartsila.com					
DRAWN	CHECKED	APPROVED	SCALES		BOATING NO.
21/06/2013			A3 1:200 A1 1:100		40402-G-1
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