

# Cassandra VI



## GENERAL

<b>Type</b>	Multi Purpose Deck Ship
<b>Class</b>	ABS
<b>Flag, Port of Registry</b>	Malaysia, Kuching
<b>GRT / NRT</b>	TBA
<b>IMO Number</b>	9561746
<b>Official Number</b>	333142
<b>Call Sign</b>	9WKG5
<b>Vessel Name</b>	Cassandra VI
<b>Designer</b>	Wartsila Ship Design
<b>Builder</b>	Sealink Engineering & Slipway Sdn Bhd
<b>Yard Hull Number</b>	SSS183

## PRINCIPLE DIMENSION

<b>Length Overall</b>	53.80m
<b>Length Waterline</b>	50.40m
<b>Breadth Moulded</b>	13.80m
<b>Depth Moulded</b>	4.50m
<b>Draft Designed</b>	3.00m
<b>Complement</b>	38 people

## CARGO / TANK CAPACITY (appx)

<b>Fuel Oil Tanks</b>	255cum / 218.03mt
<b>Heavy Fuel Oil Tanks</b>	897.5cum / 861.60mt
<b>Sea Water Ballast</b>	65.1cum / 66.69mt
<b>Fresh Water Tanks</b>	203.7cum / 203.69mt
<b>L O Tanks</b>	9.2cum / 8.26mt
<b>Thermal Oil</b>	7.5cum / 6.49mt
<b>Bilge</b>	10.9cum / 10.86mt
<b>Dirty Oil</b>	11.1cum / 10mt
<b>Sewage</b>	2.9cum / 2.85mt
<b>Dirty Oil</b>	20.3cum / 18.30mt

## PROPULSION SYSTEM

<b>Main Engines</b>	2 Marine Engine; rated 1700BHP @ 1800RPM
<b>Engine Control System</b>	
• <b>Main Engine Control</b>	1 Shipset of Main Engine Control
• <b>Engine Telegraph</b>	1 Shipset of Three Station Twin Engine Telegraph
• <b>Shaft Tachometer</b>	1 Shipset of Single Station Twin Engine Shaft Tachometer
<b>Gearbox</b>	2 Marine Gearbox Ratio 6.00:1
<b>Bow Thruster</b>	
• <b>Tunnel Thruster</b>	1
• <b>Engine</b>	1 500HP @ 1800RPM (367 KW)
• <b>Gearbox</b>	1 Ratio 1.225:1

## AUXILIARY MACHINERIES

### Main Generator

- **Engine** 2 Generator Engine: 550Hp @ 1500RPM
- **Alternator** 2 Capacity 380KW, 415V, 3Ph 4 wire, 4 poles

### Emergency Generator

1 Rating: 60KVA / 48KW/0.8pf/50HZ/1500RPM, Engine: Yanmar 4TNE106T-G1A, Type: 4 cylinder inline, Alternator: Mecaalte (Italy)

### Working Air Compressor

- **For General Service** 1 Capacity 27-30m<sup>3</sup>/hr @ 10 bar, 4KW, 380-415/V3Ph/50Hz
- **For Quick Closing Valve** 1 Capacity 27-30m<sup>3</sup>/hr @ 10 bar, 4KW, 380-415/V3Ph/50Hz

### Fresh Water Maker

### UV Water Purifier

1 Capacity 5ton/day  
1 Flow rate: 75.70L/min, 220V 50/60Hz

### Hot Water Calorifier

1 Capacity: 750L, Max pressure 10 bar, Max water temp 99°C / 210°F

### Oily Water Separator

### Fuel Oil Purifier

1 Capacity: 1.0m<sup>3</sup>/hr, 15ppm  
1 Self Cleaning Centrifugal; rated capacity: 5000L/H, power supply: 415V/3Ph/50Hz and ABS Class

### Sewage Treatment Plant

1 Sewage Treatment Plant suitable for 45-48 persons

## PUMPS

### Fresh Water Cargo Pump

1 Flow rate: 100m<sup>3</sup>/hr @ 70m, Motor: 37KW, Material: Casing-Cast Iron, Impeller- Aluminium bronze Shaft-SS316L, Seal-M.S.

### Main HFO Pump

1 Flow rate: 150m<sup>3</sup>/hr @ 6 bar, vertical rotary three screw pump, c/w relief valve, lantern & EMM, 415/3/50 V1 Motor c/w gauge sc/tefc IP55/F, 45.0KW x 1450RPM motor

### Standby HFO Pump

1 Flow rate: 100m<sup>3</sup>/hr @ 6 bar, vertical rotary three screw pump, c/w relief valve, lantern & EMM, 415/3/50 V1 Motor c/w gauge, sc/tefc IP55/F, 37.0KW x 1450RPM motor

### Bilge & Fire Pump

1 Flow rate: 40m<sup>3</sup>/hr @ 45m, Motor: 15KW, Material: Casing-Aluminium bronze, Impeller- Aluminium bronze, Shaft-SS316L, Seal-M.S. ABS Cert

### G.S. & Ballast Pump

1 Flow Rate: 45m<sup>3</sup>/hr @ 45m. Horizontal self priming pump c/w Teco 15KW x 2900RPM Motor, 415V 3Ph 50Hz

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## PUMPS CONTINUED

<b>Emergency Fire Pump</b>	1 Flow rate: 40m <sup>3</sup> /hr @ 45m, Motor: 15KW, Material: Casing-Aluminium bronze, Impeller- Aluminium bronze, Shaft-SS316L, Seal-M.S. ABS Cert
<b>Fuel Oil Transfer Pump</b>	1 Flow rate: 9.75m <sup>3</sup> /hr @ 18m, Motor: 3KW, Material: Casing-Cast Iron, Impeller-Steel, Gear Shaft-Steel, Seal-M.S.
<b>Chiller &amp; Freezer Pump</b>	2 Flow Rate: 35m <sup>3</sup> /hr @ 25m, Speed: 2900RPM, Impeller dia: 165mm
<b>Air-Con SW Cooling Pump</b>	2 Flow Rate: 40m <sup>3</sup> /hr @ 15m, Motor: 3KW, Material: Casing- bronze, Impeller- bronze, Shaft-Stainless Steel, Seal-M.S.
<b>Sludge / Dirty Oil Transfer Pump</b>	1 Horiz Gear Fitted with relief V/V c/w 1.1KW x 1430RMP motor. 415V 3Ph 50Hz, 3m <sup>3</sup> /hr @ 15m
<b>Hot Water Circulation Pump</b>	1 Motor KW: 0.55, Material: Casing-SS, Impeller-SS, Shaft-SS, Seal-M.S., Cap: 5m <sup>3</sup> /hr @ 23m
<b>Fresh Water Pressure Set</b>	1 Flow rate: 3.8m <sup>3</sup> /hr @ 3.5bar, Motor: 3/4HP, Ejector Pump, c/w 3/4HP motor, 230V / 1PH / 50HZ fitted with pressure, switch press gauge & check valve
<b>Sea Water Pressure Set</b>	1 Flow rate: 3.8m <sup>3</sup> / hr @ 3.5 bar, Motor: 3/4HP, Ejector Pump, c/w 3/4HP Motor, 230V / 1ph / 50Hz fitted with Pressure, Switch Press Gauge & Check Valve
<b>Sewage Discharge Pump</b>	1 Flow Rate: 6m <sup>3</sup> /hr @30m, Motor: 2.2KW, Material: Casing-Cast Iron, Impeller-Steel, Shaft-Stainless Steel, Seal-M.S.
<b>Fuel Oil Cargo Pump</b>	1 Flow Rate: 75m <sup>3</sup> /hr @ 60m, Horizontal self priming, c/w 37KW x 2950 RPM Motor 415V/3Ph/50Hz

## FLOW METER

- **Fresh Water Flow Meter** 1 Flow Rate: 100m<sup>3</sup> / hr x 4" 10K water flowmeter, remote totalizer not required. Capri Watermeter
- **Fuel Oil Cargo Flow Meter** 1 150m<sup>3</sup>/hr, Direction: left side to right side, c/w printer & remote totalizer (installed in wheelhouse), strainer
- **MDO Flow Meter** 150m<sup>3</sup>/hr, 4" x 10K with local readout, remote totalizer c/w 4" strainer, right to left
- **PD Meter** 4 flow range 80-3800L/hr, 25mm bore size, totalizing counter, local readout only, non pulse type 2 x 1" ANSI 10K flange connection, 1x1" Y strainer

## FLOW METER CONTINUED

<b>Windows Defrosting Unit</b>	1 x 3 stage air flow rate: 2300cmh, ESP: 1000Pa, Heating Capacity: 15KW, 415V/3Ph/50Hz
<b>Thermal Fluid Heater Circulating Pump</b>	1 HFO Burner 2 with 7.5KW E-motor NTT32-200, Q=23m <sup>3</sup> /h, H=56mlc

## DECK MACHINERIES

<b>Anchor &amp; Chain</b>	
• <b>Anchor</b>	2 x 1590kg JIS Bower Type Anchor c/w ABS Cert
• <b>Anchor Chain c/w Kenter Shackle</b>	18 x Diameter 34mm Grade U2 Anchor Chain: 9 shackles each
• <b>Chain Stopper</b>	2 x Diameter 34mm Grade U2 Guillotine Chain Stopper c/w Mill Cert
• <b>Swivel</b>	2 x Diameter 34mm Grade U2 Swivel Piece c/w ABS Cert
• <b>Anchor Shackle</b>	2 x Diameter 34mm grade U2 Anchor Shackle c/w ABS Cert
<b>Anchor Windlass</b>	
	1 x 10 ton anchor windlass c/w centre rope winch double gypsies, double warping ends, local control and electro-hydraulic power pack with ABS cert
<b>Capstan</b>	
	2 x 5 ton hydraulic capstan c/w 2 units local control stands, 15m / min Capstan size: 380mm
<b>Hyd. Power pack unit</b>	
• <b>Power pack for Anchor Windlass</b>	22KW x 2, Hydraulic Power pack
• <b>Power pack for Capstan</b>	1 x 1 unit 60hp (2 x 22KW) electro-hydraulic power pack for operating capstans

## SPECIAL PURPOSE DECK EQUIPMENT

<b>Bunker Hose &amp; Reel</b>	2x bunker fuel hose reel 200m x 100mm Pulling force 5t / brake force 5t / pulling speed 5RPM
<b>Seismic Streamer Cable Reel</b>	Hydraulic 2 x 45KW x 116LPM x 210bar, 1480RPM Inner drum 1.4m dia Capable holding 6000m x 125mm dia streamer cable
<b>Deck Crane</b>	1 x SWL 10t @ 15m, electric motor 55KW x 4P
<b>Towing Hook</b>	1 x Mampaey Quick Release disc type towing hook, Cap: 45MT SWL
<b>Davit for Mother Ship Work Boat</b>	1 x Davit (10t) for housing Seismic vessel work boat
<b>Fenders</b>	2 x Yokohama fenders
<b>Containers</b>	1 x 20ft dry container 1 x freezer container (approx. 10ft x 10ft) 1 x chiller container (approx. 10ft x 10ft)

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## NAVIGATION & COMMUNICATION SYSTEM

<b>MF/HF Radiotelephone</b>	1 x 24VDC
<b>Inmarsat-C</b>	1 x 24VDC
<b>Inmarsat-C SSAS</b>	1 x 24VDC
<b>VHF Radiotelephone</b>	2 x 24VDC
<b>EPIRB</b>	1 x Battery expiration 06-2014
<b>Radar Transponder</b>	2 x Battery expiration 04-2015
<b>GMDSS VHF Portable Radio</b>	3 x 12VDC battery expiration 06-2014
<b>Navtex Receiver</b>	1 x 24VDC
<b>VHF/FM Marine Transceiver</b>	1 x 7.2VDC
<b>Echo Sounder</b>	1 x 220VAC
<b>X-Band Arpa Radar</b>	1 x 220VAC
<b>Marine Radar No. 1</b>	1
<b>Marine Radar No. 2</b>	1
<b>Speedlog</b>	1 x Doppler Speedlog IMO, approved for AC220V operation
<b>AIS</b>	1 x IMO Type Automatic Identification System (AIS), for DC24V operation
<b>GPS Navigator (IMO)</b>	2 x 24VDC
<b>Wind Speed Indicator</b>	1 x 12VDC
<b>Gyro Compass</b>	1 x 220VAC / 24VDC
<b>Autopilot Control Unit</b>	1 x 24VDC
<b>Magnetic Compass</b>	1 x magnetic compass c/w reflector and std accessories. 220VAC / 24VDC
<b>VHF</b>	4 x VHF
<b>Satellite Communication Transceiver</b>	1 x SCT
<b>Satellite TV</b>	1 x Sat TV
<b>PC System</b>	1 x Interface with Owner's Chart Plotter
<b>Remote Display</b>	1 x for Echo Sounder, Speedlog, Gyro, Windspeed
<b>LAN Cable</b>	Wheelhouse – Capt-CE-Office-ECR-Mess
<b>Transducer</b>	For Echo Sounder, frequency 200KHz
<b>Hospital Call System</b>	x1
<b>Bridge Alarm System</b>	x1

## NAUTICAL EQUIPMENT/ NAVIGATIONAL AIDS

<b>Brass Bell</b>	1x 12" (300mm) bell, brass c/w striker, CCS approved
<b>24" Black Ball</b>	3x Net type
<b>24" Black Diamond</b>	1x Net type
<b>Chronometer</b>	2x c/w certificates 100mm dial, quartz type mahogany case 160 x 160 x 85mm
<b>Clinometer</b>	2 x 5" dial brass, 6" flange, oil-dampened
<b>Barometer</b>	2 x 5" dial brass, 155mm flange, aneroid type
<b>Thermometer</b>	3x Asumi -30°C to + 50°C wall mount 250mm LG c/w wooden plate, 250mm (10") length.
<b>Mechanical Fog Horn</b>	x1
<b>Lantern Daylight Signalling Lantern</b>	1x Lantern c/w plug, bulb & box. Daylight signal lantern approved to SOLAS
<b>Battery for Lantern Daylight</b>	1 c/w wooden box
<b>Marine Clock</b>	6x Front open type, 6" dial brass casing, 220mm flange, quartz type
<b>International cod flag</b>	1x c/w 40 pcs 2ft x 3ft
<b>International signal code book</b>	1x American Version
<b>National Flag</b>	x1
<b>Binocular Vanguard</b>	2pcs 7 x 50mm, Central focus
<b>Parallel Ruler</b>	1x 500mm LG
<b>Transistor Megaphone</b>	Megaphone loudhailer, handheld with siren
<b>Singapore/ Malaysia Flag</b>	1, 2ft x 3ft
<b>Hand Lead</b>	2x 3.2kg c/w 46m line

## SAFETY EQUIPMENT

<b>Liferaft</b>	6 x 20 me inflatable liferaft
<b>Lifebuoy</b>	4 x 2.5kg with 30m lifeline 2 x 2.5kg with lifebuoy light 2 x 4.0 kg lifebuoy c/w reflective tape, 30m lifeline & self igniting light
<b>Life Jacket</b>	62 x c/w whistle and light
<b>Embarkation Rope Ladder</b>	2 x 6m, SOLAS c/w 4 pcs rubber step
<b>Orange Smoke Signal</b>	x2
<b>Parachute distress rocket</b>	x12
<b>Line Throwing Apparatus</b>	1 set c/w 4 projectile
<b>Paraguard Excel Rescue Stretcher</b>	1 c/w carrying case & 4 points lifting sling
<b>Emergency Escape Breathing Device</b>	Bioscape 15 mins EEED c/w 3L 200 bar steel cylinder
<b>First Aid Kit</b>	3 x 25 persons c/w box & appliances
<b>Rigid Fast Rescue Craft &amp; Launch / Recovery Davit</b>	Maker: Bukh Steyr Model: MO 236K43 Type: Turbocharged 4 stroke, 6 cylinder, Power: 212HP (156KW), LOA 7.50m, Persons: 15, Complies w SOLAS & LSA. Bureau Veritas cert. in accordance w European Council Directive 96/98 EC on Marine Equipment (M.E.D.)
<b>Hydraulic Pivoting Davit</b>	x1

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## FIREFIGHTING EQUIPMENT

<b>International shore connection</b>	1 x 1-1/2" Storz int'l shore connection
<b>Fire Hose Box</b>	14 x box c/w 15m length hose of dual purpose type incorporating shut-off (spray & jet nozzle)
<b>Storz Hydrant</b>	14x 1-1/2" Storz Hydrant 90 deg, c/w brass cap w/chain
<b>9kg ABC dry powder fire extinguisher c/w mounting bracket</b>	x14
<b>Spare Cartridge</b>	x14 c/w spare powder (9kg per bag)
<b>9 L fire extinguisher c/w mounting bracket</b>	x8
<b>Spare CO2 Cartridge</b>	x8
<b>9L foam fire extinguisher c/w mounting bracket</b>	x5
<b>Spare AFF Foam Liquid</b>	x5
<b>Spare CO2 Cartridge</b>	x5
<b>45L AFFF foam fire extinguisher</b>	x1
<b>Spare AFF Foam</b>	1 x 1 tin x 4 L
<b>Spare CO2 Cartridge</b>	1 x 1kg type
<b>Portable Foam Applicator</b>	1x HV225 Foam applicator W/ 1 1/2" instantaneous
<b>Protein Foam</b>	3 x 3%, 20L per drum for foam applicator
<b>Fireman outfit</b>	2 x c/w helmet, protective clothes, mask, boots
<b>Safety Lantern</b>	2 x c/w battery
<b>Fire proof safety line</b>	2 x c/w snap hook
<b>Fireman Axe 14"</b>	x2
<b>Thermal Protective Aid</b>	x2
<b>Electric Drill</b>	x2
<b>Breathing Apparatus</b>	2 x SCBA, 30 mins
<b>BA cylinders</b>	6 x 6L/200 bar steel cylinders
<b>Galvanised Steel Bucket</b>	12 x 5L capacity
<b>Fireman's Axe 36"</b>	x3
<b>Red Fire Plan Container</b>	x1
<b>Fire Blanket</b>	2x 4' x 6'
<b>Smoke Detector</b>	x33
<b>Fire Damper for machinery spaces</b>	x2
<b>Fire Damper for accommodation</b>	x2
<b>CO2 Nozzle</b>	x11

DETAILS PROVIDED HEREIN ARE BELIEVED TO BE ACCURATE HOWEVER ARE WITHOUT WARRANTY. INTERESTED PARTIES ARE ENCOURAGED TO INSPECT THE VESSEL TO SATISFY REQUIREMENTS.

