



M/V Pacific Centurion

- ▶ **Bollard Pull** 190-199 tonnes
- ▶ **Brake Horsepower** 16,086 BHP
- ▶ **Clear Deck Space** 664 m²
- ▶ **Winch Line Pull** 400 tonnes

M/V Pacific Centurion

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Clear Deck Space	664 m ²	Winch Line Pull	400 tonnes

General Information

Vessel Name:	Pacific Centurion
Port of registry:	Singapore
Built:	Sekwang Heavy Industries Co Ltd, Korea, Feb 2015
Flag:	Singapore
Call Sign:	9V9027
IMO No.:	9455131
Classification:	DNV-GL +1A1 Fire Fighter(II) Standby vessel Supply vessel Tug Clean(Design) COMF(V-3) DK(+) DYNPOS(AUTR) E0 HL(2.8) Ice(C) LFL(*) OILREC SF TMON

Dimensions

Length, overall:	86.0 metres
Length, BP:	73.5 metres
Breadth, moulded:	19.9 metres
Depth, main deck:	8.8 metres
Design draft:	6.8 metres
Maximum draft midship:	7.3 metres
GT:	4566
NT:	1370

Capacities

Deadweight (maximum):	3332 t
Clear Deck Area:	40 m x 16.6 m = 664 m ²
Deck Strength:	10 mt per m ²
Deck Cargo:	1,200 mt @ 1.0 metre CG
Fuel:	1594 m ³ (this is only the case if all designated fuel tanks plus all tanks on the ORO system are filled to 100%)
Potable Water:	1175 m ³
Ballast Water:	3302 m ³
Mud /Brine /DMA:	694 m ³
Brine /DMA:	328 m ³ (dedicated)
Special Liquids:	272 m ³ in 316L SUS tank with heating (for methanol & heated products)
Dry Bulk:	235 m ³ (4 tanks)
Ship's Stores:	Freezer capacity - 13.5 m ³ Cooler capacity - 9.7 m ³ Dry store capacity - 15.3 m ³ , temperature controlled

Oil Recovery

Capacity:	1350 m ³
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General Comments: A combination of tanks are used to achieve this capacity - mud tanks, brine tanks, 2 off water ballast / rig chain lockers & 1 stability tank aft of engine room. Hydraulic drive pumps for fuel oil, water ballast / drill water & mud pumps are arranged as Oil Recovery discharge.

Machinery

Main Engines:	2 x 6000 kW = 12,000 kW (16,086 bhp) RRM Bergen B32L40V12P CD diesel engines
Propulsion:	2 x 4100 mm
Azimuth Thruster:	1 x 1500 kW (2011 bhp)
Bow Thrusters:	1 x 883 kW (1184 bhp)
Stern Thrusters:	2 x 925 kW (2480 bhp)
Shaft Alternator :	2 x 3000 kva PTO / PTI (for fuel economy)
Auxiliary Generators:	2 x 910 kW (2440 bhp) & 1 x 425 kW (570 bhp)

Towing and Anchor Handling

Bollard Pull:	177.21 tonnes at 100% MCR 199.6 tonnes at Maximum tension/pull
Main Winch:	Triple drum Brattvaag SL400W low pressure
Load Capacity:	Towing, Working & Anchor Handling drum 400 t pull at 0 - 18.7 m/min (based on 1st layer) 275 t pull at 0 - 26.8 m/min (based on mid layer) 200 t pull at 0 - 36.5 m/min (based on top layer) Lowering at 0 - 59.6 m/min Spool gear fitted to all drums
Brake Capacity:	500 t on anchor handling drums (1st layer) 525 t on towing & working drums (1st layer)
Tow Drum Dimension:	1500 mm ID x 3200 mm OD x 1900 mm L
Tow Drum Wire Capacity:	1732 m L x 84 mm dia
AH Drum Dimension:	1500 mm ID x 3200 mm OD x 4870 mm L with dividing flange socket 900 mm
AH Drum Wire Capacity:	4503 m L x 84 mm dia
Work Drum Dimension:	1500 mm ID x 3200 mm OD x 3000 mm L
Work Drum Capacity:	2759 m x 84 mm dia
Secondary Winch Dimension:	2 x 1500 mm ID x 4500 mm OD x 4500 mm L with dividing flange socket 900 mm
Secondary Winch Capacity:	2 x 4000 m x 76 mm dia with 138 t pull (based on 1st layer)
Chain Gypsy Cable Lifter:	2 x 76 mm
Rig Chain Locker:	2 x 157 + 2 x 164 m ³ (total: 642 m ³)
Stern Roller:	Split - 2 x 3.0 m x 6.0 m, 550 t SWL
Tow Pins / Guide Pins:	4 x hydraulic, retractable 300 t SWL with closing arms
Wire Chain Stopper:	2 x 800 t SWL
Popup Pins:	2 x hydraulic 150 t SWL at stern (one each port and starboard)
Centering Devices :	2 x Retractable centering devices
Penant Reel :	1 x 1600 m x 76 mm with 15 t pull (based on 1st layer)
Penant Winder:	Pennant winder with separate spooling sheave

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Cargo Rail Cranes: 2 x cargo rail cranes (P & S) with double boom
 Hoisting & Working Boom with winch & manipulators
 3t @ 14.3 m / 5t @ 10 m

Deck Machinery

Forward Tuggers : 2 x 24 t
 Stern Tuggers : 2 x 12 t
 Windlass: 1 x 16 t, hydraulic, 552 m x 48 mm chain each
 Smit Towing Bracket: 1 x 300 t
 Crane Capacity: 1 x knuckleboom
 In Port: SWL 15 ton at 15 mtrs
 Offshore: SWL 10 ton at 15 mtrs

Electronics

Main Radar: Furuno FAR/FR-2837S, S-band (10 cm), ARPA, 23 ins display
 Auxiliary Radar: Furuno FAR/FR-2827, X-band (3 cm), ARPA, 23 ins display
 Auto Pilot: Sperry Marine, Navpilot 4000
 Gyro Compass: 3 x Sperry Marine, Navigat X Mk 1
 Magnetic Compass: Sperry Marine, Navipol II
 Echo Sounder: Furuno, FE-700
 DGPS : 2 x Furuno, GP-150
 Anemometer : Gill, WindObserver, Ultra Sonic
 Speed Log: 2 x Doppler Three axis
 Communications: G.M.D.S.S. (Global Maritime Distress & Safety System)
 Area A3
 1 x SSB
 4 x VHF
 1 x Inmarsat Fleet 77
 2 x Inmarsat C
 2 x GSM mobile telephones
 1 x GSM for data communication
 3 x VHF (portable)
 2 x SART
 2 x EPIRB
 1 x Navtex receiver
 ECDIS: 2 X Furuno TECDIS
 Weather Fax: 1 x Furuno, FAX-30
 Satellite Communication: FBB: Sailor 500
 AIS: Furuno, FA-150
 Voyage Data Recorder(VDR): 1 x Furuno, VR3000 6G

Discharge Pumps

Fuel Oil / ORO: 1 x 200 m³/hr - 9 bar
 Fuel Oil / Base Oil: 1 x 200 m³/hr - 9 bar

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Potable Water:	2 x 200 m ³ /hr - 9 bar
Ballast / Drill Water:	1 x 200 m ³ /hr - 9 bar
Ballast / Drill Water / ORO:	1 x 200 m ³ /hr - 9 bar
Brine / Mud:	2 x 75 m ³ /hr - 18 bar
Liquid Mud / ORO:	2 x 75 m ³ /hr - 24 bar
Dry Bulk:	2 x 26 m ³ /min - 6 bar
Special liquid (Methanol):	4 x 75 m ³ /hr - 9 bar
Nitrogen System:	188 m ³ /hr
Hose Connections :	Fuel: 4" Avery Hardoll, male connection w/loose coding rings & standard bunker flange Drill Water: 4" Weco, male connection Potable Water: 4" Weco, female connection Cement: 5" Best, male connection (wing part) Liquid Mud: 4" Avery Hardoll connection Brine: 4" Avery Hardoll connection Base Oil: 4" Avery Hardoll, male connection w/loose coding rings Special Liquids: 4" Avery Hardoll connection

Dynamic Positioning

Type:	Rolls-Royce Marine, Icon DP2, IMO Class DP 2 system
Reference Systems:	Veripos, DGPS Guidance Navigation, CyScan Guidance Navigation, RadScan HPR prepared (hull valve)
Joystick:	Rolls-Royce Marine Poscon Joystick

External Fire Fighting

Capacity:	2 x 3600 m ³ /hr = 7200 m ³ /hr
Monitors:	2, each 3600 m ³ /hr, controlled from inside wheelhouse
Throw Length:	180 m
Throw Height:	110 m

Standby Rescue Equipment

- 2 x Maritime Partner MP660 Springer, 10 persons, SOLAS approved FRB with inboard diesel waterjet propulsion.
Davit for quick launch and recovery.
- Rescue Zones on both Port and Starboard side, main deck.

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Accommodation

Berths:	35 Berths in Total
	7 x Single berths
	10 x Single/Double berths (Pullman bunks)
	4 x Double berths (Pullman bunks)
	Temporary reception up to 280 survivors
	All accommodation spaces air conditioned & heated
	1 x Lounge
	1 x Office
	1 x Conference Room & Lounge
	1 x Survey Space in Wheelhouse
	1 x Gymnasium
	1 x Hospital / Treatment Room & combined dispensary

Environmental Features

1. All centre mud tanks of free flowing design with external stiffening, sloped floors. All tanks fitted with agitators.
2. Low residue design bulk tanks.
3. 1 x oily water separator with 15 ppm monitor. Compliant with IMO - Resolution MEPC 107 (49).
4. 1 x sewage treatment plant
5. Galley macerator
6. Cargo loading / discharge stations with save all to inboard tank.
7. Stern roller fitted with Auto greasing lubrication system.

Miscellaneous

1. Built to full class rules and under inspection by DNV.
2. Designed for North Sea offshore conditions.
3. Deck strengthened for heavy cargoes 10t/m².
4. Fitted with two passive roll reducing tanks.
5. Pneumatic bulk handling system, capable of discharging 2 type of dry bulk simultaneously through 2 separate discharge lines with emergency stop fitted in wheelhouse.
6. Fitted with 3 x 2000 W searchlights - all remotely operated & focused from inside the wheelhouse.
7. One boiler, 80 kw or 250,000 kcal/hr.
8. Wood sheathed main deck except for aft area which is steel plated for anchor-handling.
9. Welding / cutting machine complete with attachments.
10. CCTV monitoring system for winches, deck & ship sides.
11. Special Cargo (Methanol), 3 x deck foam monitors, foam nozzles inside cargo rail from a 1900 litres foam tank.

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12. Prism Nitrogen System - Capacity 188m3/hr @ 95% N2
Main items Compressor Tamrotor - Model TMC 65-13 EA/EW
Membrane Unit Air Products Model NC1-1512P

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PERFORMANCE

Speed and approximate Fuel Consumption in various conditions:

Vessel Speed and Draft Knots / m	Operational Mode	Fuel Oil Consumption inclusive Sea Margins
		Ton / 24 h
12 Knots, At 6.0 m draft, Approx. 2000 T DW	Two main engine running at 60 Hz, with electrical load on shaft generator, 250 kW for hotel load	18.5
12 Knots, At 7.3 m draft, Fully loaded draft, Approx. 3700 T DW	Two main engine running at 60 Hz, with electrical load on shaft generator, 250 kW for hotel load	24
14 Knots, At 6.0 m draft, Approx. 2000 T DW	Two main engine running at 60 Hz, with electrical load on shaft generator, 250 kW for hotel load	30
Max. speed 17.5 knots, at ballast draft	Main engine at 100 % load, Electrical load from one Gen. set	58
Max. speed 15.7 knots, at fully loaded draft	Main engine at 100 % load, Electrical load from one Gen. set	58
Port	180 kW used in harbour	1.2
AH operation with main propeller, thruster, service and winch load	Diesel mechanical mode with electrical load on aux. generator	(8 to 24) Average 16
DP at Hs 2.5m, wind, 12.86 m/s beam sea and wind generated current of 0.39 m/s	Diesel mechanical mode, 60 Hz, with electrical load on shaft generator. Both ME running	10
Stand by with use of Azimuth forward only	One Gen. set running, Service load 180 kW, Average load on Azimuth thruster, Approx. 15 to 30% (375 kW)	2.7