



- **Bollard Pull** 53-66 tonnes
- Brake Horsepower 4826-5147 BHP
- Clear Deck Space 275-330 m2
- Winch Line Pull 150 tonnes

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Bollard Pull Clear Deck Space 53-66 tonnes 275-330 m2

Brake Horsepower Winch Line Pull

4826-5147 BHP 150 tonnes

General Information

Built:	Qingdao Qianjin Shipyard, China, November 2011
Flag:	Singapore
Call Sign:	9V7614
IMO No.:	9503433
Classification:	DNV-GL +1A Fire fighter(I) Offshore service vessel(Anchor handling, Towing) DPS(1)

Dimensions

Length, overall:	57.50 m
Length, BP:	50.50 m
Breadth, moulded:	14.00 m
Depth, main deck:	6.00 m
Design draft:	4.55 m
Maximum draft midship:	5.10 m
GT:	1329
NT:	401.3

Capacities

Deadweight (maximum): Clear Deck Area:	1540.55 tonnes 30m x 11m = 330 m2
Deck Strength:	General deck - 5 t/m2
	Aft AH deck - 19 mm steel plate
Deck Cargo:	500 tonnes
Fuel:	566.286 m3 (dedicated)
Potable Water:	400.746 m3
Ballast Water:	371.866 m3
Brine / DMA / Glycol / Liquid	
Mud:	147.264 m3 or 5200 ft3 (2 tanks dual-use Brine/Mud/DMA)
Liquid Mud:	184.432 m3 or 6513 ft3 (4 dedicated tanks)
	331.696 m3 or 11713 ft3 (including 2 dual-use tanks)
Dry Bulk:	135 m3 or 4750 ft3 in 2 x 2 tank independent systems.
-	Cement density max 2.35 t/m3 and fineness 4,000 Blaine.

Machinery

Main Engines:	2 x 1920 kW = 3840 kW (5147 BHP) Yanmar 6EY26
Propulsion:	2 x CPP propellers in Kort nozzles
	2 x Electric-hydraulic steering gear
Bow Thrusters:	1 x 500 kW (670 BHP) producing 7.9 tonnes (77.5 kN) thrust
Stern Thrusters:	1 x 500 kW (670 BHP) producing 7.9 tonnes (77.5 kN) thrust
Shaft Generators:	2 x 1250 kVA, 440 V, 60 Hz
Auxiliary Generators:	1 x 320 kW Caterpillar 3406 C with spark arrestor
Emergency Generators:	1 x 315 kW Caterpillar 3406 C with spark arrestor



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Towing and Anchor Handling

Bollard Pull:	65.1 MT @ 100% MCR
Main Winch:	1 x MacGregor-Plimsoll double drum, low pressure winch
Load Capacity:	Towing / A/H drums 1st layer
	150 tonnes at 7.2 m/min
	100 tonnes at 10.8 m/min
	50 tonnes at 22 m/min
Brake Capacity:	250 tonnes (static) on towing drum 1st layer
	250 tonnes (static) on AH drum 1st layer
Tow Drum Wire Capacity:	1200 m x 64 mm (2.5 inch) diameter
Work Drum Capacity:	1200 m x 64 mm (2.5 inch) diameter
Chain Gypsy Cable Lifter:	1 x 76 mm (3 inch) diameter chain
Stern Roller:	1 x 2 m diameter x 4 m width, SWL 250 tonnes
Tow Pins / Guide Pins:	1 x set hydraulic Karmoy, remotely controlled
Wire Chain Stopper:	1 x retractable Karmoy, SWL 250 tonnes, controlled from wheelhouse
	(32 - 76 mm chain)

Deck Machinery

Tuggers: Capstans: Windlass: Bow Mooring: Smit Towing Bracket: Crane Capacity:

Electronics

Main Radar: Auxiliary Radar: Auto Pilot: Gyro Compass: Magnetic Compass: Echo Sounder: DGPS : Anemometer : Speed Log: Communications:

Navtex Receiver: Weather Fax: 2 x 10 tonnes MacGregor-Plimsoll 8 x tonnes x 15 m/min MacGregor-Plimsoll; Drum - 10 tonnes x 10 m/min 1440 kg high holding power anchor, 412.5 m x 30 mm dia U3 chain 1 x mooring drum capacity 220 m x 38 mm synthetic rope 1 x fwd SWL 1500 kg @ 8 m radius, make: Helia, model: HM25-8F

1 x Furuno X-band, 21" colour LCD, ARPA 1 x Furuno S-band, 21" colour LCD, ARPA 1 x Tokyo Keiki PR-6000-e 1 x Tokimec TG-8000 with 4 repeaters 1 x Tokimec SH165A1 1 x Furuno FE-700 1 x Furuno DG-150 1 x young wind tracker Furuno DS-80 G.M.D.S.S. (Global Maritime Distress & Safety System) Area A3 2 x VHF 2 x Inmarsat C 3 x VHF (portable) 1 x McMurdo E5 1 x Navtex Furuno NX-700 Furuno FAX 408



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> FBB: Sailor 500 VSAT: Sailor 900

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Satellite Communication:

 AIS:
 Furuno FA 150

 VHF:
 Furuno

 VRU:
 1 x VRU

 BNWAS:
 NAVGARD

Discharge Pumps

- Fuel Oil: Dirty Oil: Potable Water: Drill Water: Liquid Mud: Brine / Mud: Dry Bulk: Hose Connections :
- 1 x 100 m3/hr 7.0 bar 1 x 10 m3/hr - 2.0 bar 1 x 150 m3/hr - 7.0 bar 1 x 150 m3/hr - 7.0 bar 1 x 150 m3/hr - 7.0 bar 1 x 75 m3/hr - 18 bar 1 x 75 m3/hr - 18 bar 2 x 78 m3/hr - 5.6 bar, 80 psi Fuel - 4" Female Camlock Potable Water - 4" Female Camlock Drill Water - 4" Female Camlock Liquid Mud - 5" Female Camlock Dry Bulk - 4" Female Camlock

Performance

Speed / Fuel Consumption:

Maximum speed 13.5 knots free running at 100% MCR - approximate fuel consumption 19 m3 per day Economical speed 10 knots - approximate fuel consumption 10.5 m3 per day Idle at sea - approximate fuel consumption 2.3 m3 per day Idle in port - approximate fuel consumption 0.8 m3 per day

Dynamic Positioning

Type: Reference Systems: Control Modes: Joystick: Converteam C series DP1 system Veripos DGPS LID3-G1 and CyScan Mark 4 Manual / DP / Joystick Converteam Independent Joystick System

External Fire Fighting

Capacity:	2 x 1200 m3/hr = 2400 m3/hr
Monitors:	2 x 1200 m3/hr mounted on wheelhouse top, remotely controlled from
	wheelhouse
Throw Length:	120 m
Throw Height:	50 m at 70 m distance
Drenching System:	Yes



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Standby Rescue Equipment

- 1. 1 x Vanguard VG 6.0 FRW, 15 persons, SOLAS approved FRB with inboard diesel waterjet propulsion.
- 2. Rescue Zones on both Port and Starboard side, main deck, with scrambling net and personnel transfer swing ropes.

Anti-Pollution

Dispersant Tank:9.190 m3Spray Booms:4 x spray nozzles (2 at each side), outreach: 12 m

Accommodation

Berths:

4 x 1 berths 5 x 2 berths 2 x 4 berths 22 berths in Total 1 x combined messroom/recreation room 1 x galley All living space fully air-conditioned, design 45 deg C / 70% RH outside, 25 deg C / 50% RH inside

Environmental Features

- 1. Real time main engine fuel consumption monitoring, ensuring maximum fuel efficiency and emissions reduction.
- 2. Coffin 5 ppm oily water separator, effluent quality exceeds the 15 ppm current legislation requirements.
- 3. 1 x Omnipure sewage plant, complies with latest 2010 IMO Resolution MEPC 159(55).
- 4. Cargo load / discharge stations with saveall to inboard tank.
- 5. Low residue design bulk tanks.
- 6. Mud tanks with dedicated recirculation pumps.
- 7. Macerator fitted in galley. Provision for recycling of waste.

Miscellaneous

- Design complies to latest rules and regulations from SOLAS 1974, and IMO 469 (XII) "Guidelines for the design and construction of offshore supply vessel".
- 2. Bulk systems remotely controlled from wheelhouse.
- 3. Fitted with 3 halogen searchlights (1 fwd, 2 aft), each 2000W, on wheelhouse top and electrically operated from inside wheelhouse, 8 x 1000W floodlights for cargo deck.
- 4. Deck power supplies:
 - 4 x 250A, 440V, 3phase;
 - 1 x 63A, 440V, 3phase;
 - 1 x 32A, 220V, single phase



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- 5. Wood sheathed main deck for aft area, which is steel plated for anchor handling. Supplied with anchor grapnel.
- 6. Welding / cutting equipment and lathe in workshop.
- 7. Fresh water ultra violet sterilizer.
- 8. CO2 fire extinguishing system fitted in the engine room / paint locker / hydraulic pump room / emergency generator room. Independent CO2 system for Galley.
- 9. Fire detection system fitted to the accommodation, engine room and throughout the vessel.
- 10. Statutory liferafts, life-jackets, pyrotechnics.
- 11. Removable crash rail sections on main deck (PS & SB) to facilitate R.O.V. operation.
- 12. Required by charterer:
 - 1 x Valiant RB450, 6 persons, Rescue Boat with 1 x petrol outboard propulsion 1 x Norpower, 10 persons, Workboat with inboard diesel waterjet propulsion
- 13. Crane no.2 intended for workboat launching & recovery.

Crane winch SWL = 7t Crane = 8 t Hook = 4 t Maker: Petrel