



M/V Pacific Rapier

- ▶ **Bollard Pull** 76-87 tonnes
- ▶ **Brake Horsepower** 6997-7200 BHP
- ▶ **Clear Deck Space** 408-414 m²
- ▶ **Winch Line Pull** 150 tonnes

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Bollard Pull	76-87 tonnes	Brake Horsepower	6997-7200 BHP
Clear Deck Space	408-414 m ²	Winch Line Pull	150 tonnes

General Information

Built:	Pan United Shipyard, Batam, June 2006
Flag:	Singapore
Call Sign:	9V5943
IMO No.:	9340037
Classification:	DNV-GL +1A1 Fire fighter(I) Tug DYNPOS(AUTR) E0 LFL(*) SF

Dimensions

Length, overall:	64.3 metres
Length, BP:	57.3 metres
Breadth, moulded:	15.0 metres
Depth, main deck:	6.7 metres
Maximum draft midship:	5.78 metres
Design draft:	5.1 metres
GT:	1823
NT:	548

Capacities

Deadweight (maximum):	2204 tonnes
Clear Deck Area:	408 m ² (34 x 12 m)
Deck Strength:	General deck - 5 tonnes/m ² Aft A/H deck - 10 tonnes/m ²
Deck Cargo:	900 tonnes
Fuel:	550 m ³ (dedicated) (+378 m ³ additional, with 6 x mud tanks)
Potable Water:	351 m ³
Ballast Water:	481 m ³
Drill Water:	481 m ³
Ballast Water / Drill Water:	481 m ³
Brine / DMA / Glycol / Liquid Mud:	126.2 m ³ - 90% (s.g. 2.5) (2 tanks)
Liquid Mud:	378.6 m ³ - 90%, 420 cubic metres - 100% (+141 m ³ additional - 100%, with 2 x Glycol / Brine tanks)
Special Liquids:	Methanol: 75 m ³ (2 tanks)
Drilling Brine:	126.2 m ³ (s.g. 2.5) (2 tanks)
Dry Bulk:	187 m ³ (6600 cubic feet in 4 tanks)
Ship's Stores:	Cooler: 11.3 m ³ approximately Freezer: 13.3 m ³ approximately Dry Stores: 27 m ³ approximately
Potable water production:	Cathelco Seafresh RO Type T25 1500 Ltrs/ hour

Machinery

Main Engines:	2 x 2610 kW = 5220 kW (6997 BHP) Bergen C25:33L9P
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Propulsion:	2 x CPP Propellers in Kort nozzles 2 x Ulstein high lift independent rudders 2 x Electro-hydraulic steering gear
Bow Thrusters:	2 x 500 kW = 1000 kW (1340 BHP) developing 8.05 tonnes
Stern Thrusters:	2 x 500 kW = 1000 kW (1340 BHP) developing 8.05 tonnes
Shaft Generators:	2 x shaft generators approximately 1600 kW, 450 V, 60 Hz
Auxiliary Generators:	1 x diesel/gen Output approximately 270 kW
Emergency Generators:	1 x diesel/gen Output approximately 270 kW

Towing and Anchor Handling

Bollard Pull:	87.3 MT, continuous
Main Winch:	1 x Brattvaag SL150W-2T low pressure hydraulic, with tension and line out metres
Load Capacity:	Towing A/H drum 1st layer 150 tonnes pull at 0 - 7.2 m/min 90 tonnes pull at 0 - 10.9 m/min 35 tonnes pull at 0 - 21.9 m/min Lowering at 0 - 18.0 m/min
Brake Capacity:	250 tonnes on towing drum 1st layer 250 tonnes on A/H drum 1st layer
Tow Drum Dimension:	L 1.65 Mtr x (2.09-0.8) Diameters
Tow Drum Wire Capacity:	1200 m x 64 mm diameter
Work Drum Dimension:	L 1.65 Mtr x (2.09-0.8) Diameters
Work Drum Capacity:	1200 m x 64 mm diameter
Chain Gypsy Cable Lifter:	1 x cable lifter for 3" (76 mm) rig chain
Stern Roller:	SWL approximately 300 tonnes Length 4 m x 2 m diameter
Tow Pins / Guide Pins:	2 x retractable Karm guide pins with horizontal locking tops
Wire Chain Stopper:	1 x retractable Karm Fork, SWL 300 tonnes
Spare Reel Capacity:	1 x hydraulic Brattvaag 1300 m x 64 mm capacity
Pennant Storage Reels:	1 x hydraulic Brattvaag 1300 m x 64 mm capacity

Deck Machinery

Tuggers:	2 x 6 tonnes Brattvaag
Capstans:	2 x 6 tonnes Brattvaag
Windlass:	6.03 tonne pull Brattvaag, 1980 kg high holding anchors 440 m x 36 mm chain each side
Bow Mooring:	1 x mooring drum capacity 200 m x 38 mm rope
Smit Towing Bracket:	1 x 200 tonnes SWL located on fo'c'sle
Crane Capacity:	2 tonnes at 10 m outreach(Provision Crane-Stbd) ; 5 tonnes at 12 m outreach(ROV Crane- Port)

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Electronics

Main Radar:	Furuno model FAR-2137S 21" colour LCD, S-band ARPA
Auxiliary Radar:	Furuno model FAR-2117S 21" colour LCD, X-band ARPA
Auto Pilot:	Tokimec PR 6000
Gyro Compass:	3 x Tokimec TG-8000, with Repeaters
Magnetic Compass:	Tokimec PR 6000
Echo Sounder:	Sperry ES 5100 - 10-2000 m range
DGPS :	1 x Furuno GPS Navigator GP-170
Anemometer :	2 x Gill Ultrasonic WindObserver II
Speed Log:	Furuno Model DS-80 Doppler
Communications:	Area A3
	1 x Sailor 6301 SSB Radio
	1 x Sailor 622 VHF-DSC + 1 x FURUNO FM-8800D Duplex Radio
	2 x FURUNO FELCOM 15 Immarsat C Transceivers
	3 x McMurdo R2 GMDSS VHF Portable Radios
	2 x McMurdo S4 Rescue SART 9ghz Transponders
	1 x McMurdo E5 SMARTFIND 406mhz EPIRB
	1 x VSAT Tel +1 2108 888 623
	1 x FBB Tel +870 773 933 946
	1 x IRIDIUM Tel +8816 3181 1009
Watch System:	1 x MARTEK MARINE NAVGARD BNWAS
Navtex Receiver:	1 X McMurdo ICS NAV5 Plus
Weather Fax:	Furuno Fax 207
Satellite Communication:	FBB: Sailor 500
	VSAT: Sailor 900
AIS:	Furuno FA100
VRU:	TSS DMS-10 / TSS RP-30 / TSS DMS-10
BNWAS:	1 x MARTEK MARINE NAVGARD BNWAS

Discharge Pumps

Fuel Oil:	1 x 60 m ³ /hr - 7.0 bar
Base Oil:	1 x 75 m ³ /hr - 18.0 bar
Dirty Oil:	1 x 2 m ³ /hr - 4.0 bar
Potable Water:	1 x 150 m ³ /hr - 7.0 bar
Drill Water:	1 x 100 m ³ /hr - 7.0 bar
Ballast / Drill Water:	1 x 150 m ³ /hr - 7.0 bar
Liquid Mud:	1 x 60 m ³ /hr - 18.0 bar
Brine / Mud:	1 x 60 m ³ /hr - 18.0 bar
Dry Bulk:	80 m ³ /hr, 5.6 bar, 80 psi, 2 compressors
Cargo Flow Meters :	Fuel Oil and Fresh Water / No flow meter on drill water
Special liquid (Methanol):	2 x 50 m ³ /hr, 5 bar
Nitrogen System:	NC1.1-1605P-WKX-089-950, 94 Sm ³ /hr, 95% N ₂

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Hose Connections :	Fuel – 3 & 4" Camlock
	Potable water - 4" Camlock
	Drill Water - 4" Camlock
	Liquid Mud - 4" Camlock
	Dry Bulk - 5" Camlock
	Methanol – 2" TODO male
	Adapters 3"-4", 4"-5"

Performance

Speed / Fuel Consumption:	Max. speed 15.5 knots approximate consumption 24 metric tonnes per day
	Cruising speed 12 knots approximate consumption 12 metric tonnes per day
In Port:	1 metric tonne per day

Dynamic Positioning

Type:	GE Duplex Dynamic Positioning System, C-Series
Reference Systems:	Sonardyne Ranger II / 2 x Veripos LD5 DGPS / Fanbeam 5
Control Modes:	Joystick Manual Heading / Joystick Auto Heading / Dynamic Positioning / Model Control (Dead Reckoning) / Simulation (for training purposes) / DP Minimum Power / Auto Track / Auto Pilot Mode / Mixed Axis Mode / Ship Follow (Fanbeam) / ROV Follow (Requires Acoustic)
Joystick:	Rolls-Royce

External Fire Fighting

Capacity:	2 x 1200 m ³ /hr = 2400 m ³ /hr
Monitors:	2 x Jet / Spray on wheelhouse roof, remotely operated from wheelhouse
Throw Length:	120 m
Throw Height:	50 m
Drenching System:	In line with FIFI pumps, 4 port and 4 starboard hydrants in addition to normal fire line and hydrants.
Foam Tank :	1 x 16.6 m ³

Standby Rescue Equipment

1. 1 x Maritime Partner MP660 Springer, 10 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:	17.3 m ³
Spray Booms:	2 x 6 m
Spray Nozzles:	6 x Spray Nozzles on each boom.

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Accommodation

Berths:

- 4 x 1 berths
- 9 x 2 berths
- 3 x 4 berths
- 36 berths Total (including 2 in Hospital)
- 1 x ship's office
- 1 x hospital
- 1 x messroom
- 1 x recreation room
- 1 x galley

All living space fully air-conditioned, design 45 deg C outside, 23 deg C inside

All living space fully heated, design -5 deg C outside, 22 deg C inside

Environmental Features

1. Cylindrical mud tank free flowing design with external stiffening, sloped floors and dedicated recirculation.
2. Low residue design bulk tanks.
3. 1 x 15 ppm oily water separator.
4. 1 x sewage plant, extended aeration type.

Miscellaneous

1. Design complies to latest rules and regulations from SOLAS 74, with amendments in force and IMO 469 (XII) "Guidelines for the design and construction of offshore supply vessel".
2. F.O. and Mud systems are controlled by a Tanktender system with discharge printer for FO.
3. Fitted with 2 Halogen searchlights, each 2000W, wheelhouse top and electrically operated from inside wheelhouse, 4 x 1000W flood-lights, for cargo deck.
4. 3 Pcs x 32A x 440V (3 Phase)
3 Pcs x 64A x 440V (3 Phase)
1 Pc x 32A x 220V (3 Phase)
8 Pcs x 15A x 220V (1 Phase)
5. Wood sheathed main deck except for aft area, which is steel plated for anchor-handling.
6. Welding and cutting equipment and lathe in workshop.
7. Domestic fresh water ultra violet sterilizer.
8. Fire detection system fitted to the accommodation, engine room and emergency generator spaces.
9. CO2 fire extinguishing system fitted to cover the engine room, paint locker, hydraulic pump room, emergency generator and galley vent trunking.
10. 6 weather proof deck sockets fitted.
Model: PD 160/4 BS, 240V, 15 Amps
11. Nitrogen plant & HPU for methanol operations.

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12. RO plant for making domestic water
(Maker - Cathelco Seafresh, Type -T25, Capacity – 1500 Ltrs / Hrs)