

Multi-Purpose Offshore Support Vessel

KPV REDANG



SapuraKencana
PETROLEUM



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KPV REDANG

Classification	: ABS Class, +A1, +AMS Circle E, with descriptive Notation multi-purpose offshore support vessel for unrestricted service, +DPS-2
Other Compliance	: IMO Intact and Damage Stability A469, COLREG 72 & Amendment, GMDSS A3, MARPOL Annex I, IV, V & VI
Flag	: Malaysian Flag
IMO Number	: 9507568
Call Sign	: 9MLT4

PRINCIPLE DIMENSION

Length O.A	: 75.00 m
Length W. L.	: 72.00 m
Beam MLD.	: 20.00 m
Depth MLD.	: 7.20 m
Draft (Designed)	: 5.20 m
Draft (Max)	: 5.80 m
Deck Area	: 520 m ²
Speed	: Abt. 11 knots @ 100% MCR @ ballast condition about 4.0 meter mean draft
Main Engines	: 2 x 1600 KW (100% MCR) @ 1000 rpm coupled to Berg CPP type BCP690 c/w with gear box
Endurance	: Min. 22 days
Complement	: 200 men
Fuel Type	: Marine Diesel Oil
Main deck strength	: 5 tonnes / m ² covered with wood sheathing
GT	: 3719 MT
NT	: 1115 MT

TANK CAPACITY

F.W.	: 1005 m ³
F.O.	: 597 m ³
S.W.B	: 650 m ³
Grey Water Tank	: 20 m ³
Bilge holding Tank	: 17 m ³
Sewage Holding Tank	: 20 m ³
Lub Oil Storage Tank	: 34 m ³
Dirty oil Tank	: 17 m ³
Hydraulic Oil Tank	: 12 m ³
Antiroll	: 1,119 m ³

ACCOMMODATION SPACE

Fully Air-Conditioned for all accommodation spaces

Tween Deck	: 96 men
(below main deck)	
Main Deck	: 1 man
Lower forecastle deck	: 84 men
Upper forecastle deck	: 9 men
Total	: 200 men

OTHER FEATURES

Stabilisation system	: Flume passive stabilisation system
Voyage Data	: Yes, as per SOLAS requirement
Recorder system	
Fresh Water Maker	: Reverse osmosis type of fresh water maker, Capacity - 50 mt /day x 2 units
Service Air	: Capacity of air compressor - 150 m ³ / hr @ Compressor 7 bar x 1 unit
Air Receiver	: Capacity - About 1 m ³

COMMUNICATION / NAVIGATIONAL EQUIPMENT

Communication System	: GMDSS - area A1 to A3, PA/Talkback system and Sound Powered telephone system
Navigational Aids	: Echo Sounder, Radars x 2, GPS Navigator, SART, 406MHz EPIRB, Gyro Compass (2 units), Auto Pilot, DGPS, AIS, Speed Log, SSAS, Anemometer

STEERING GEAR & RUDDER

Steering Gear	: Independent steering gear for each Rudder in compliance to DPS-2 requirements.
Rudder type	: High Lift rudder of Becker design with flap or equivalent.

MAIN MACHINERIES

Main Engine & Propulsion System	: 2 x 1600 KW main engine @ 1000 rpm approx. c/w. gear box Berg CPP type BCP 690 propeller in nozzle. The main engines cooling system will be by Freshwater through box coolers.
Thrusters	: Bow Tunnel Thruster CPP x 2, 12 MT thrust each approx., Electric Motor driven c/w with remote control in wheelhouse with interface for DPS-2 and VDR system Stern Tunnel Thruster CPP x 1, 10 MT thruster approx., Electric Motor Driven c/w remote control in wheelhouse with interface for DPS-2 and VDR system

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POWER PLANT

Diesel Generator	: 4 x 850 EkW, 440/3/60, 3 wire system
Harbour Generator	: The alternators are fitted with Power Factor Regulator Approximate 320 EkW, 440/3/60.
Emergency Generator	: 1 x 95 EkW, 440/3/60.
Shore supply Panel	: 300 amps capacity

DPS-2 SYSTEM (Comply to ABS Classification Rules)

Equipment System & Configuration	: Converteam (Designer and Supplier of the system except for the Gyro-compass and the propulsion and steering gear system)
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Equipment and system provided to be in compliance with the Classification Rules and regulations.

The system main features comprises of the following:

Redundancy Requirement	: Yes
DP control computer	: 2 units
Position Reference system	: 2 x DGPS & 1 x Laser Reference System
Wind speed & Direction Equipment	: 2 units
Vertical Reference Unit	: 2 in nos.
Printer for alarm data Log	: 2 in nos.

DECK MACHINERY

Anchor Windlass	: Hydraulic Driven suitable for 48 mm stud link Grade 2 chain c/w wharping drums
4 points mooring system	: 4 x 4000 kg Delta flipper anchor or equivalent + 1 spare 4 x hydraulic driven single drum c/w auto spooling gear, with pull of 40 mt at low speed and 10 mt at high speed. Drum capacity of 1300 meter x 44 mm diameter wire. Brake holding of 90 mt static
Clutch	: Hydraulic cylinder operated jaw clutch
Free wheel	: De-clutch drum from drive with brake off (Dragging Brake apply on drum shaft to control speed)
Brake	: Spring acting, hydraulic cylinder release band and brake on drum
Dragging Brake	: On drum shaft to control payout speed during free-wheeling
Control	: Local control and central remote control in Wheelhouse
Emergency system	: Emergency quick release system
Monitoring System	: Remote monitoring of the winches at Wheelhouse by flat screen monitor.
Hydraulic Vertical Capstan	: 2 units on main deck with pull of 5 mt.

FIRE FIGHTING EQUIPMENT

External Fire Fighting	: 1 unit of diesel engine driven sea water pump with capacity of 300 m ³ /hr @ 100-120 metre head with local and remote control in the wheelhouse. 2 units of fire monitor.
Fire Detection and Protection	: Accommodation spaces are protected by fresh water sprinkler system. Engine Room, Bow Thruster Room, paint store and emergency generator room are protected by fixed CO ₂ fire protection system. Flexi-fog water mist extinguishing system as per SOLAS / Class requirement.

DECK CRANE

Vessel Designed for the provision for the following deck equipment

Deck Crane	: Amclyde 10000 from American Equipment
Provision Crane	: 3 tonnes SWL @ about 18 metre radius located aft of forecastle deck
MAXIMUM LOAD	: 25.1 Tonnes at 7 m/82 degree boom angle
MIDDLE LOAD	: 14.3 Tonnes at 21.3 m/56.3 degree boom angle
MINIMUM LOAD	: 2.8 Tonnes at 37.5 m/10.9 degree boom angle

