



**45M Utility Support Vessel**  
**2 x 1500BHP Caterpillar**

**PRINCIPAL PARTICULARS**

Length overall : 45.00M  
Length BP : 40.00M  
Breadth moulded : 11.00M  
Depth moulded : 4.00M  
Draft moulded : 3.20M  
Class Notation : BV Class 1 + Hull + Mach,  
Tug (Unrestricted Navigation)  
Gross tonnage : 499 tons  
Net tonnage : 149 tons  
Bollard pull : 35 tonnes (approx)  
Speed : 12.0 knots (approx)  
Endurance : 30 days

**TANKAGE**

Fresh water : 150M<sup>3</sup> (approx)  
Fuel oil : 275M<sup>3</sup> (approx)  
Foam : 14.0M<sup>3</sup>  
Dispersant : 14.0M<sup>3</sup>  
SW ballast tank : 85M<sup>3</sup> (approx)  
Lub oil : 1M<sup>3</sup> (approx)

**MACHINERY**

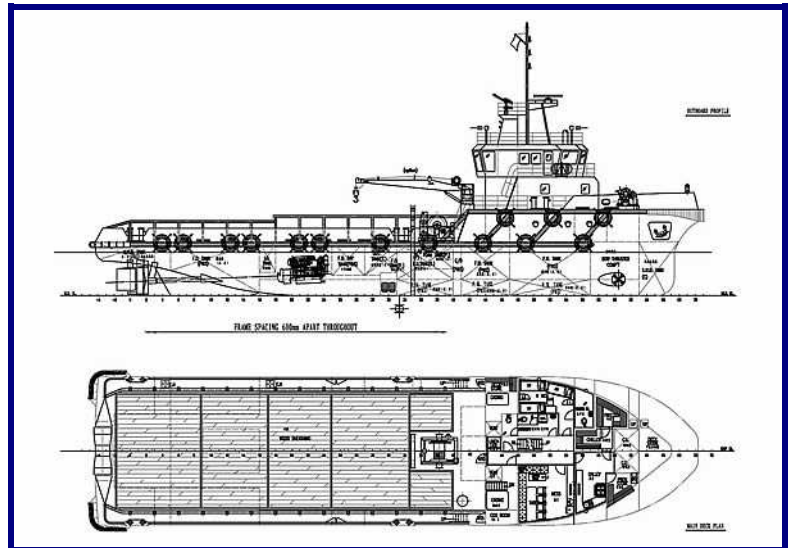
Main engine : 2 x 1500BHP @ 1600RPM  
Caterpillar 3512B  
Reduction gear : 2 x Reintjes WAF663,  
5.571:1  
Propeller : 2 x four bladed manganese  
bronze, fixed pitch propeller  
Bow thruster : 1 x 5.0 tonnes thrust, driven by  
electric motor, 415V/3Ph/50Hz  
Main generator : 2 x 280kw Caterpillar  
3408C, 415V/3Ph/50Hz

**ACCOMMODATION**

Total complement	:	28 men
Captain and chief engineer	:	2 x 1 man
Crew	:	3 x 2 men
		5 x 4 men
Hospital	:	1 x 1 man

**LIFE SAVING EQUIPMENT**

2 x 30-men inflatable liferafts  
28 sets lifejacket  
8 sets lifebuoy



Contents herein are believed correct but not guaranteed.



#### **PUMPS**

Bilge and ballast pump : 1 x horizontal self-priming centrifugal SW pump of 50M<sup>3</sup>/hr @ 35M total head, 415/3ph/50Hz  
GS pump : 1 x horizontal self-priming centrifugal pump of 50M<sup>3</sup>/hr @ 35M total head, 415/3ph/50Hz  
Emergency fire pump : 1 x hand-start, air cooled diesel driven fire pump of 25M<sup>3</sup>/hr @ 30M head  
F.O. transfer pump : 1 x gear pump of 20M<sup>3</sup>/hr @ 30M head, 415/3ph/50Hz  
F.O. cargo pump : 1 x cargo gear pump of 50M<sup>3</sup>/hr @ 50M head driven by electric motor, 415/3ph/50Hz  
F.W. cargo pump : 1 x horizontal self-priming centrifugal pump of 50M<sup>3</sup>/hr @ 50M head driven by electric motor, 415/3ph/50Hz  
FW pressure set : 1 x 3M<sup>3</sup>/hr @ 35 PSI driven by electric motor, 240V/1Ph/50Hz  
SW pressure set : 1 x 3M<sup>3</sup>/hr @ 35 PSI driven by electric motor, 240V/1Ph/50Hz  
Oily bilge water separator : 1 x 0.5M<sup>3</sup>/hr @ 2kg/cm<sup>2</sup> head with oil content of max. 15 PPM  
Sewage treatment plant : for 28 men  
Dirty oil pump : 1 x electric driven pump of 5M<sup>3</sup>/hr @ 45M head

#### **NAVIGATION EQUIPMENT**

1 set Radar, 68MN  
1 set Eco sounder  
1 set GPS  
2 sets Magnetic compass & gyro compass  
1 set Autopilot  
1 set MF/HF-DSC radio telephone  
2 sets VHF-DSC radio telephone  
2 sets SART  
1 set EPIRB  
1 set Navtex Receiver  
1 set Inmarsat C  
3 sets VHF portable radio  
1 set wind anemometer

#### **DECK MACHINERY**

Anchor : 2 x stockless bower anchor each of 900kgs  
Chain cables : 357.5M, 28mm dia.  
Mooring lines : 2 x 110M, min 74KN breaking strength  
Towing line : 1 x 120M, min 174KN breaking strength  
Anchor windlass : 1 x electro-hydraulic anchor windlass of 4.0 tonnes @ 12M/min  
Tugger winches : 2 x electro-hydraulic tugger winches of 5 tons @ 15m/min  
Capstan : 1 x hydraulic vertical capstan of 5 tons @ 15m/min  
Towing winch : 1 x hydraulic winch of single drum  
- pulling capacity : 40 tonnes on 1<sup>st</sup> layer  
- wire capacity : 1000mm x 42mm dia. wire each  
- brake holding : 100 tonnes on 1<sup>st</sup> layer  
Deck crane : 1 x electro-hydraulic crane of 1 tonne @ 15m R.S.W.L.  
Stern roller : 3.5M long x 1.6M dia (SWL 150MT)

#### **FIRE FIGHTING SYSTEM**

1 x seawater pump of 1200M<sup>3</sup>/hr @ 13 bar  
CO2 System : Main engine room shall be protected by means of a "total flooding" fixed CO2 central bank fire extinguishing system