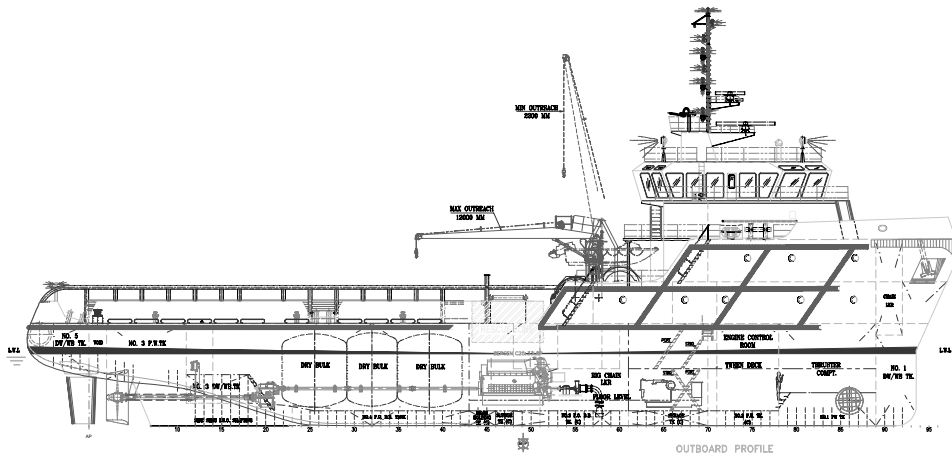




DEEP SEA SUPPLY ASA



## 63 M ANCHOR HANDLING TUG SUPPLY VESSEL

SEATECH DESIGN P-729

BUILT BY ABG SHIPYARD

FOR DEEP SEA SUPPLY ASA

Twin screw Anchor Handling Tug/Supply Vessel completely outfitted and equipped for Anchor Handling, Towing Rescue, offshore supply and other related duties. The Vessel will be classed as Anchor Handling Tug/Supply Vessel for Unrestricted Service.

Twin manoeuvring consoles are fitted in the wheelhouse stations, forward and aft with "joy-stick" controls provided. The wheelhouse is designed to ensure excellent all-round view as far as practicable. Unobstructed view to the, aft deck and aft overhead is ensured by fitting lower level and deck head windows.

### CLASSIFICATION

Det norske Veritas (DnV) : +1A1, FiFi-1, E0, Tug Supply Vessel, SF, HL 2.4, dk+

### MAIN ENGINES

The Main Engine is : 2 x C25:33L8P (Rolls-Royce Bergen make) out-put 2400 kw each @ 1000 rpm. Main engines to be two (2) medium speed four stroke marine diesels each developing an MCR of about 3250 BHP on site.

Propulsion system : 2 x AGHC-66XF5/4 E-3000N,

### GENERATORS – MAIN

Three (3) x 100% identical marine diesel generating sets, heat exchanger cooled, each rated approx. 425 KW & 440 V, 3 Phase, 60 Hz, 0.8 p.f. Aux. & Emg.

### BOW THRUSTER UNIT

Bow Thruster TT1300DPN CP (Kamewa Ulstein C.P. Propeller system)

One(1) transverse bow thruster unit of approved make and type to be fitted. The bow thruster unit to be 500KW (680 BHP). Bow Thruster unit to be driven by a electric motor and complete with controllable pitch propeller, all necessary controls and interlocks.

## PRINCIPAL PARTICULARS

Length overall (Mld hull)	:	63,0m
Length B.P.	:	54.0m
Breadth moulded	:	15.80m
Depth moulded	:	6.8m
Max. Operating draft moulded	:	5.1m
Draft moulded (design)	:	4.6m
Cargo Deck Area	:	420 M <sup>2</sup>

### Capacities

Deck Cargo (VCG 1.0M above deck)	:	600tonnes.
With tanks 100% full, the approx. capacities will be as follows:-		
Freshwater, total	:	500M <sup>3</sup>
Fuel Oil	:	700M <sup>3</sup>
Drill water/Water Ballast	:	500M <sup>3</sup>
Liquid Mud (s.g. max 2.4) (incl.Rig Chain Locker)	:	380M <sup>3</sup>
L.O. Storage	:	20M <sup>3</sup>
Cement tanks (4) (2 grades)	:	200M <sup>3</sup>
Freezer (Ship's use)	:	15M <sup>3</sup>
Chiller / Cooler (Ship's use)	:	15M <sup>3</sup>
Bilge Holding Tank	:	10M <sup>3</sup>
Foam Tank	:	20M <sup>3</sup>
Dispersant Tank	:	20M <sup>3</sup>
Sewage Holding Tank	:	25M <sup>3</sup>
Dirty Oil Tank	:	5M <sup>3</sup>
Rig Chain Locker	:	2 x 60 M <sup>3</sup>
Two (2) Rig Chain lockers to be constructed each about 60 m <sup>3</sup> and can be used as liquid mud tanks (as alternative).		

### Speed and Bollard pull

The vessel is to demonstrate about 13.5 knots speed with vessel loaded to design draft and a minimum Bollard Pull of about 80 tonnes in the ahead condition. The main engines are to develop their 100% MCR continuous rated brake horsepower for the free running speed trials and 110% MCR for bollard pull trials.  
Cruising speed at 90% MCR abt. 13 knots.

### CEMENT SYSTEM

#### Cement System General:

The system is designed for simultaneously loading/discharging of 2 grades of cement and chemicals with a maximum specific gravity of 2.8. The system is suitable for two (2) grades of cement. Two (2) separate systems to be provided.

Loading/discharge station arranged at deck - on port and on starboard aft. Loading and discharge lines to be shared.

Loading / discharge operation to be from Central Control Panel to be located in Wheelhouse or from aft deck position. Quick couplings are to be provided complete with reducer. Remote indication of pressure and tank levels with a continual indication from 0 to 100% tank levels.

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Cargo Capacity	:	Approx. 200 cu.m total.
Operation Pressure	:	6 bar
Cargoes	:	Cement, Barite, Bentonite

### Tanks:

Four (4) off vertical cement tanks. All tanks for 6 bar working pressure. Test pressure 1.5 times working pressure.

### TOWING WINCH

Brattvaag Winch : SL 150W - 2T (Anchor Handling Towing winch water fall type), BMG41083 (Windlass/mooring winch), AKM2210 (Tugger winches). Spooling Gear for both drums.

#### Drums:

Two declutchable drums 800mm dia. x 2090mm dia. x 1600mm length.

Wire capacity: 1200m of 62mm dia.

The drums are fitted with band brakes of robust design.

Brake and clutch control: manual / remote controlled.

Brake holding load: 250 tonnes on 1<sup>st</sup> layer both drums.

**Winch capacity driven at 54 bar pressure by two pumps.**

#### Hoisting: Drum's 1<sup>st</sup> layer:

160 tonnes stalling

150 tonnes pull at 0-6.8 m/min.

82 tonnes pull at 0-11 m/min.

35 tonnes pull at 0-22 m/min.

Lowering at:

Controlled dynamic breaking 29 – 180 tonnes at 0 – 55 m/min.

Weight: approx. 42 tonnes

### TOWING GEAR

Following to be provided:-

1 - 1200m x 62mm. dia towing wire same as towing wire on storage reel, on storage reel installed on upper deck over the main towing wire.

2 - 25m x 150mm dia nylon springs.

### TOWING BOLLARD

One(1) set double bit cruciform towing bollard 200 tonne SWL situated aft of the towing winch to guide wire onto drum.

### CAPSTAN

Two (2) electro-hydraulic capstan, each 8 Tonnes at 15M/min capacity to be provided at aft deck as shown on General Arrangement drawing. Capstans are to be operated locally and remote from the wheelhouse

### DECK CRANE

One (1) electro-hydraulic fixed boom crane 3 tonnes SWL at 12m outreach to be provided on the aft deck.

### STORAGE REEL

One (1) storage reel to be provided for spare tow rope.

Drum Capacity : 1200M of 62mm FSWR.

### TOWING PIN

One (1) set of hydraulic operated towing pins with flaps 200T SWL. One (1) hydraulic pump unit for towing pins. Towing pins shall be controlled from aft bridge & from aft deck.

### SHARK JAWS, ANCHOR HANDLING TONG

One (1) off Retractable Anchor handling tong unit for wire and chain to be installed. The anchor handling tong unit to be controlled from aft bridge and local position from aft deck. The anchor handling tong unit shall be certified for a SWL of 200T

Shark Jaw and Tow Pins TP 438 x 1000.

### STERN ROLLER

To meet the requirements of "rig anchor" handling service the vessel is to be fitted with a stern roller of 200 tonnes SWL, approximately 3.6M total length x 1.5M diameter.