



SEA Heavy Lift Pte. Ltd

Offshore Construction – Subsea Pipelay

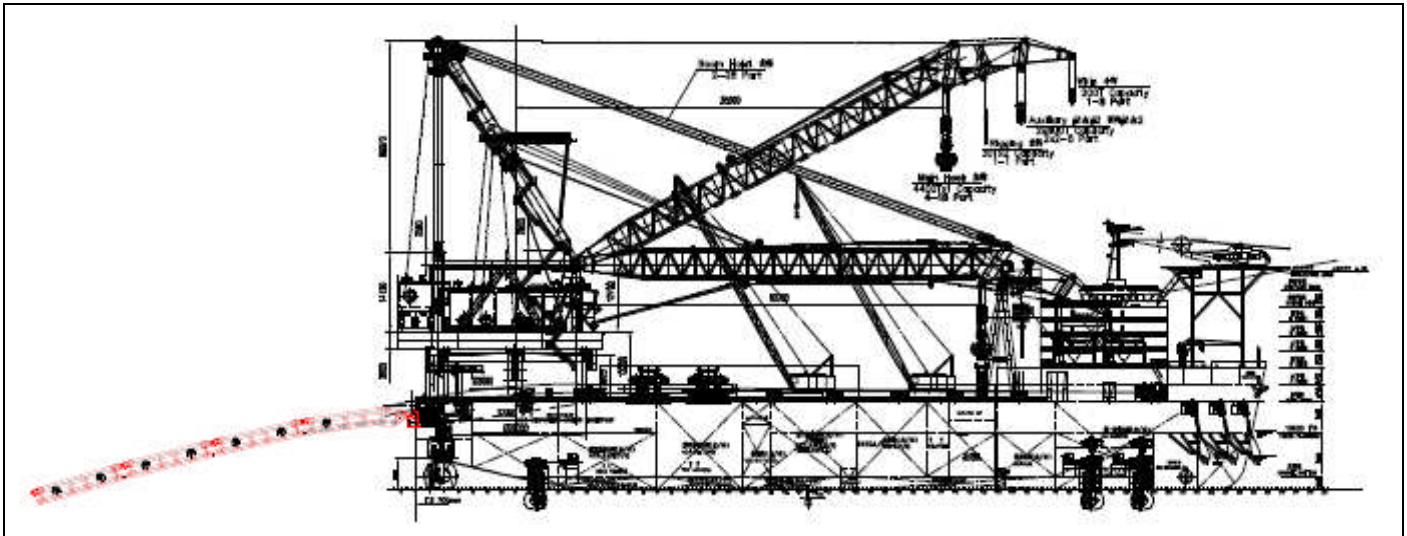


TECHNICAL SPECIFICATION OF 174 M DERRICK LAY BARGE AP5000

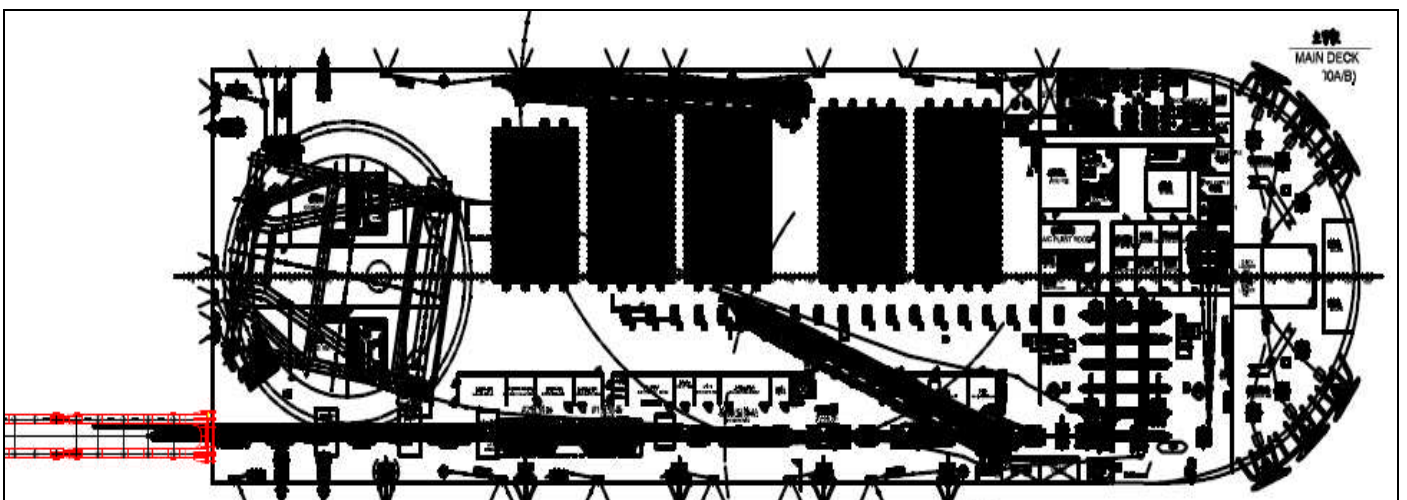
PRINCIPLE PARTICULARS

1. DLB Drawings-Structural:

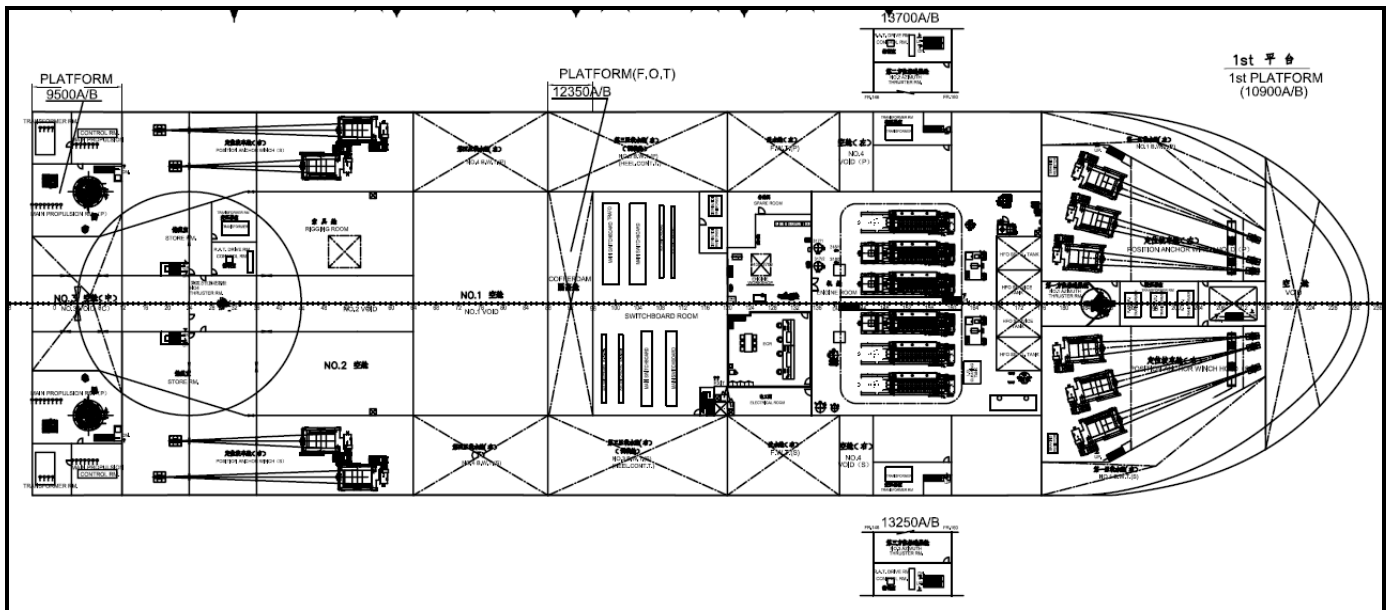
General Arrangement View



Main Deck View



Below Main Deck View:



2. TECHNICAL SPECIFICATION

Main Features	Self Propulsion, DP2, 4400T Revolving crane, 380 men accommodation, Pipe-lay, 12 point mooring & HFO fired Gensets
Class Notation	ABS +A1, +AMS, CRC, APS, HAB, ENVIRO, POT, UWILD,DPS2,HELIDK, PIPELAY SERVICE, CRANE SERVICE
Length overall	174m
Beam moulded	48m
Operating Draft	5.5 to 10.5m (approx.)
Design speed	>9.0knot
Main Deck Strength	15 Tons/ M2
Accommodation	380 Men
POWER GENERATION	
Main Generators	6 x 4345KW, 6.6kV 60Hz 3 Phase
Auxiliary Diesel Generator	1x1400KW , 450V 60Hz 3 phase
Total Power	27.2 MW
Emergency Diesel Generator	1x 450KW , 450V 60Hz 3 Phase
DP SYSTEM	
AZIMUTH Thruster	2nos Type : FPP 360° steerable, upside installation
TUNNEL Thruster	2nos Type : FPP, electric motor drive directly
RETRACTABLE AZIMUTH Thruster	3nos Type : FPP 360° steerable , Retractable in upward and downward direction

MOORING SYSTEM	
Number of winches	12nos
Drum Pull 1st Layer	150T
SWL combined windlass for operating Storm Anchor	2nos
Constant tension (electro motor driven) winches	4nos . (2 nos on main deck fwd and 2 nos on main deck aft)
Capstans	2 nos on main deck with 10T pull
MAIN CRANE	
Main Hoist in fixed over stern	4400mt at Max radius of 43m in fixed at stern
Main Hoist in revolving	3000mt at Max radius of 39m
Main Hoist Lifting Height (above / under)	95/5 m
Aux Hoist #1 & #2 in fixed over stern	1600mt at Max radius 70m
Aux Hoist #1 & #2 in revolving	1600mt at Max radius 55m
Aux Hoist Lifting Height (above / Under)	110 / 50m
Whip Hoist Max.. Load	200mt at max radius 100m
Whip Hoist Lifting Height (above / under)	120 / 150m
Rigging hooks	2Nos each 30T
PIPELAY EQUIPMENT	
Pipe Dia	4'' to 48'' (without coating) ,4'' to 60'' (with coating)
Rated Pipe Joint weight	30T
Pipe Length	12.2M
2 No Tensioner	150T each & Provision for one more with 200T
ANR Winch	300T, upgradable to 500T
Nominal Tensioner capacity – Pay-in	150T @20m/min
Nominal Tensioner capacity – Pay-out	150T @40m/min
Maximum Tension Capacity – 1A&R winch	300T@20m/min paying in 300T@40m/min paying out Up gradable to 500T
Pipe preheating systems	3 nos
Welding Station	5 nos
NDT Station	1 nos
Shielding gas distribution system	1 Nos

PIPE HANDLING CRANE	
Crane Capacity and Qty	2 Nos of 35T each
Hoisting speed with full load	20m/min
Working radius	7.5m to 40m
PIPE DAVITS	
Davit Capacity and Qty	6 nos of 50T each
PUMPS AND MACHINERY	
Ballast pumps	4nos , 2200 m3/hr , 25m Head
FO Transfer Pump	45 m3/hr , 4.5bar
Bilge Pump	4Nos 230 m3/hr , 32m head
Fire & GS Pump	165 m3/hr, 8.8bar
Oil water Separator	1unit, 5m3/hr 15ppm,IMO approved
Water maker	3 No. R.O plants of total 150 Tons per day
Sewage Treatment Plants	2nos with a capacity for 200 persons, USCG and IMO Approved
Heli-deck capable of S.92 Reception	
TANK CAPACITY	
SWB	33800
FW Tank	3950
Potable Water	1000
F.O Tank	5500
Sewage Tank	600
Settling Tank (MDO/HFO)	78/91
Day Tank (MDO/HFO)	78/91
Lube oil Tank	140
LIFE SAVING APPLIANCES	
Life Boats	6nos,75 persons each
FRC/MOB	1FRC,Minimum speed 25Knots
24x25 Men life rafts	Placed on both sides STBD & PORT
Immersion suit/Emer breathing systems	35Nos/8 Nos
NAVIGATION EQUIPMENT	
Radar plants	One (1) radar 10 cm/ S band, IMO ARPA, 20 target. Antenna 12 ft. Transmitter 30 kW, power supply 230 V. Display 28" One (1) radar 3 cm/ X band w/mini ARPA,

	40 target. Antenna 8 ft. Transmitter 25 kW, power supply 230 V. Display 28".
Gyro Compass	<p>Three (3) Gyro compass for navigation (bridge) included in the DP system.</p> <p>Two (2) Digital repeaters with rate of turn indicator for fwd. and aft overhead console.</p> <p>One (1) Gyro repeater in main crane cabin</p> <p>One (1) No voltage alarm</p> <p>One (1) Azimuth circle and azimuth mirror</p> <p>One (1) Gyro repeater in chart table</p>
Echo sounder and Speed log	<p>One (1) Echo sounder,</p> <p>One (1) for full ocean depth with anchor watch alarm The echo sounder has interface with DGPS</p> <p>One (1) Speed log including the following functions and accessories:</p> <p>Bottom tracking and water mass tracking</p> <p>Temperature measuring</p> <p>Transducer</p> <p>Signal splitter</p> <p>Gate valve hull fitting</p>
AIS,SSAS	<p>One (1) IMO approved AIS system for automatic information of the barge's identity, position, course, speed etc</p> <p>One (1) IMO approved Ship Security Alert System</p>
COMMUNICATION	
Radio Communication Equipment	<p>Two (2) Sets VHF Radio with dual watch facility c/w all accessories.</p> <p>One (1) Sets MF/HF GMDSS system for A3 inclusive GMDSS console.</p> <p>One (1) Radar transponder(SART)</p> <p>Twelve (12) Two way hand-held VHF radios</p> <p>One(1) EPIRB</p>
Satellite Communication System	<p>One(1) Fleet Broadband satellite communication systems providing telephone, facsimile, telex, e-mail and datacom switchbox</p> <p>Provision for VSAT</p>