

Vessel Specifications



REGISTRATION/CLASSIFICATION

Owner	TOM Lekiu Sdn. Bhd.
Operator	Two Offshore Marine Sdn. Bhd.
Flag/Port of Registry	Malaysia/Port Kelang
Year Built	2013
Classification	RINA
Notation	A1 Towing Vessel FIFI 1
Call Sign.	9M3454
IMO No.	9710452

PRINCIPAL DIMENSIONS

Length Overall	60.50 meters
Breadth	14.60 meters
Draft	4.50 meters
Depth	5.50 meters
GRT	1,522 T
NRT	457 T
DWT	1,400 T

MACHINERY & PROPULSION

Main Propulsion Number	2
Main Propulsion Type	Caterpillar 3516C
Total BHP	5,150
Propellers	2 x Berg CPP in fixed nozzles
Bow Thruster	1 x 8.0T controllable pitch type
Main Generators	2 x 450kw/415V/3P/50Hz
Emergency Generators	1 x 65kw/415v/3P/50hz
Shaft Alternator	2 x Leroy Summer 900KW
Reduction Gear	2 x Twindisc MGR (P) 1817VC

SPEED

Max Speed	12 knots @ 100% MCR
Eco Speed	10 knots @ 85% MCR

Cargo Capacity

Deck Space	370 m ²
Deck Strength	7.0 T/m ²
Fuel Oil	520 m ³
Fresh Water	213 m ³
Ballast / Drill Water	460 m ³
Mud	260m ³

Discharge Rates

Fuel Oil	150 m ³ /hr at 75 m head
Fresh Water	100 m ³ /hr at 75 m head
Drill Water	100 m ³ /hr at 75 m head
Mud	2 x 70 m ³ /hr @ 75 m head

DECK EQUIPMENT

Windlass	1 x Electro-hyd type of 9 MT @ 12m/min for 40mm dia chain
Anchor	2 x high hold type, stowed in anchor pockets each of 1305 kg
Capstan	2 x Electro-hyd type of 5 MT @ 15m/min
Tugger Winch	2 x Electro-hyd type of 10 MT @ 15m/min
Storage Reel	1 x hydraulic type of 5 MT @ 15m/min with drum capacity of 56mm dia x 1000m
Deck Crane	1 x Marine Crane of 3 MT SWL @ 9m

TOWING & ANCHOR HANDLING

Bollard Pull	65.0 tons
Tow/AH winch	1 x Electro-hyd driven, double drum, waterfall type, c/w spooling device for towing winch Drum pull : 150 MT (1st layer) Brake holding : 200 MT Drum Capacity : 56mm x 1000m
Towing pins	2 x vertical hydraulic retractable type @ approx. 200 T
Tugger winch	2 x electro hydraulic type of 10 MT @ 15m/min
Stern Roller	dia 1.6m x 5m length, SWL 200 MT
Shark Jaws	1 x hydraulic retractable type @ 200 MT SWL

NAVIGATION & COMMUNICATIONS EQUIPMENT

X-band radar	1 set FURUNO FAR-2117BB, 1 set FURUNO 1935
Echo sounder	1 set FURUNO FE-700
Gyro compass	1 set Roberson GC-80
Magnetic compass	1 set Saura M150
Autopilot & steering gear	1 set FURUNO NP60
Weather facsimile receiver	1 set FURUNO FAX-408
Doppler speed log	1 set FURUNO DS-80
AIS	1 set FURUNO FA-150
FM/VHF	2 sets FURUNO FM-8900S
Radiotelephone	
EPIRB	1 set McMurdo E-5
2 way portable VHF radios	3 sets McMurdo R2
SART	2 sets McMurdo S-4
Navtex Receiver	1 set FURUNO NX-700B
GMDSS Area A3	1 set FURUNO FS-2575
Inmarsat-C	2 sets FURUNO Felcom-18

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EMERGENCY RESPONSES & FIRE FIGHTING CAPABILITIES (FIFI 1)

External	
FF 1 c/w water spray	
Fire pump	2 x 1500 m3/hr @ 130 MLC
Fire monitor	2 x 1200 m3/hr @ 12 bar
Foam tank capacity	13 m ³
Dispersant capacity	13 m ³
2 x independent sea chest	
<u>Internal</u>	
Emergency fire pump	
Fixed system in E/R	CO2 system in engine room
Fire Detection System	All living space and ER
Firemain and 12 hydrants	
Fireman's outfits	
Portable fire extinguishers	
<u>Others</u>	
Rescue Zone	Port & Stbd Main Deck 2m wide
<u>LSA</u>	
Search lights	3 x 2000W capable 360 degree rotation
Liferafts	6 x 25 Pax
Lifebuoys	8 pcs
Life jackets	53 pcs
First aid kit	1 set
Immersion suit	3 pcs
Rescue boat	1 x 6 men c/w 25HP motor and davit launching
EEBD	6 + 1 sets

ACCOMMODATION

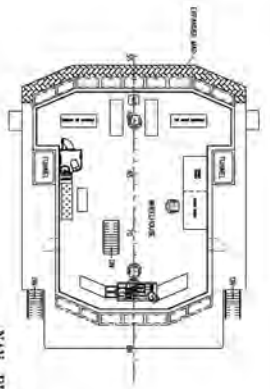
Berths	2 x 1 berth cabins 4 x 2 berth cabins 8 x 4 berth cabins Total = 42 pax
Hospital	1 x 1 berth cabin
All cabins are fully air conditioned	
Chiller & freezer	15 m ³
Provision store	15 days

EXTRA EQUIPMENTS

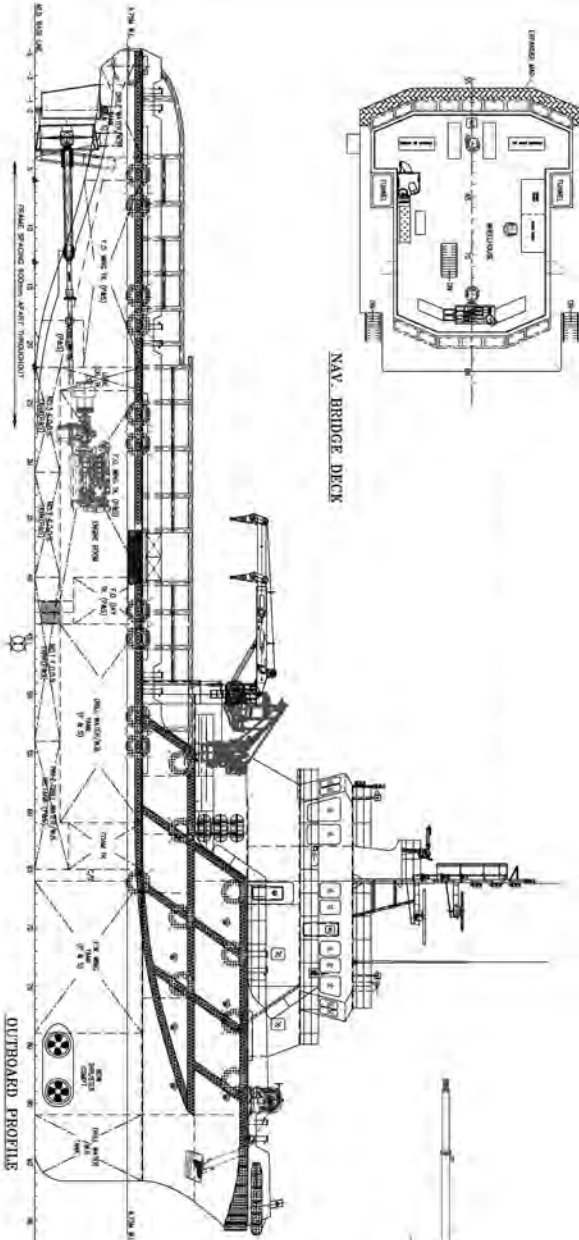
FW hydrophore plant	1 x 2 m3/hr @ 35 m head
SW hydrophore plant	1 x 2 m3/hr @ 35 m head
FW maker	1 x RO type of 5 T/day
Sewage holding & treatment system	for 42 ppl
Oil Water Separator	1 x 1 m3/hr with oil content less than 15 ppm
Central water heating system	1 set c/w 300 L tank

DYNAMIC POSITIONING SYSTEM

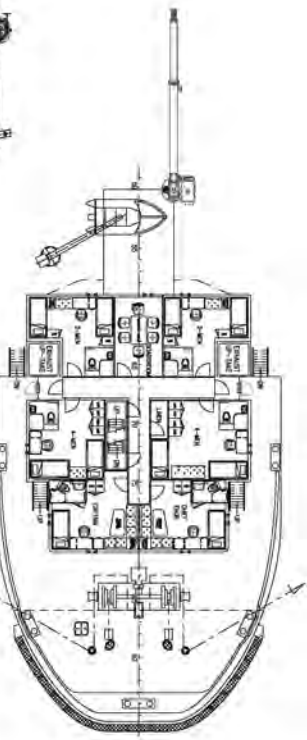
- 2 x Position Reference System
- 2 x Wind Sensors
- 1 x Motion Reference System
- 2 x Gyro Compass
- 1 x UPS
- 1 x Control Station with two computer system of joystick and DP system



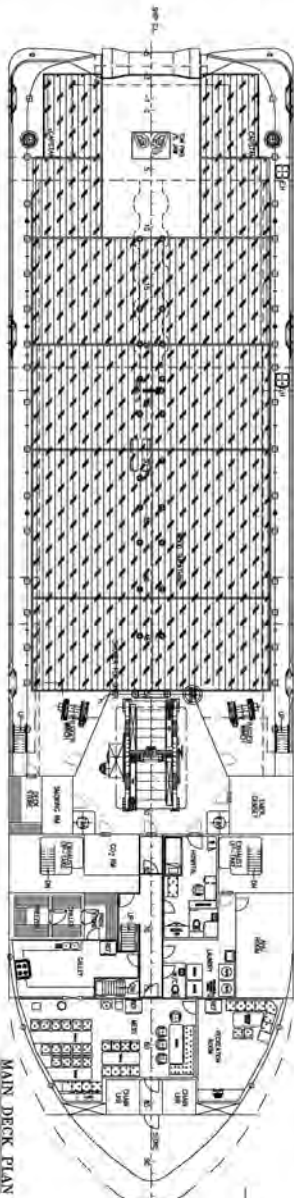
NAV. BRIDGE DECK



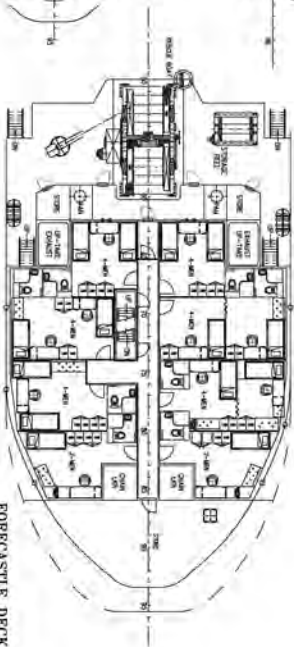
OUTBOARD PROFILE



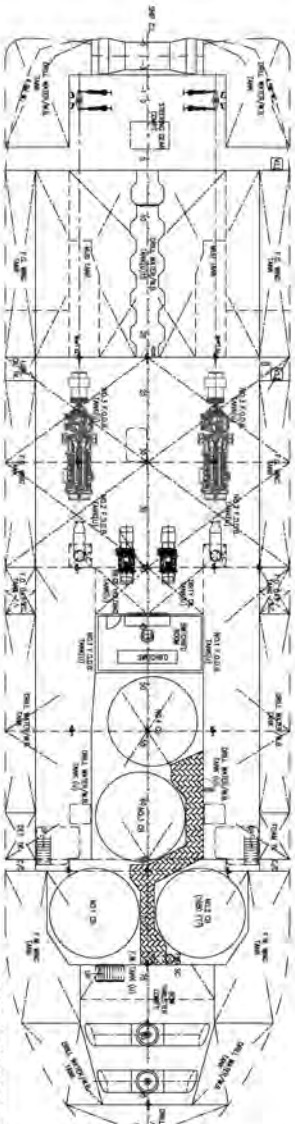
UPPER FORECASTLE DECK



MAIN DECK PLAN



FORECASTLE DECK



BELOW MAIN DECK PLAN

PRINCIPAL DIMENSIONS

- LENGTH OVERALL 60.50 M
- LENGTH WATERLINE 58.17 M
- LENGTH BETWEEN PERPENDICULARS 55.00 M
- BREADTH MOULDED 14.60 M
- DEPTH MOULDED 5.50 M
- MAX. DRIFT MOULDED 4.75 M
- ACCOMMODATION 42 MEN
- FUEL OIL 517 M³
- FRESH WATER 215 M³
- DRILL WATER 435 M³
- WHD (S.G. = 2.5) 251 M³
- DRY BULK TANKS 4 x 1650 FT³ = 6600 FT³
- CLEAR DECK AREA (DECK LOADING = 7 T/M²) 370 M²
- TOTAL POWER 7 x 2575 BHP
- ROLLAND PULL 65 TONNS
- SPEED 13.5 KNOTS

THE COMPANY AND ITS OPERATOR'S GENERAL LIABILITY AND DAMAGE TO PROPERTY IS COVERED BY MARINE INSURANCE POLICY NO. 07253083 IN THE SUM OF S\$10,000,000.00. THE COMPANY'S GENERAL LIABILITY AND DAMAGE TO PROPERTY IS COVERED BY MARINE INSURANCE POLICY NO. 07253083 IN THE SUM OF S\$10,000,000.00.

DATE	BY	REVISION

GENERAL ARRANGEMENT
 PROJECT: 60.5m ANCHOR HANDLING SUPPLY VESSEL
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DATE	BY	REVISION

SHEET NO. 110100212
 SCALE: 1:125
 DRAWING NO. KCM/06330-01