



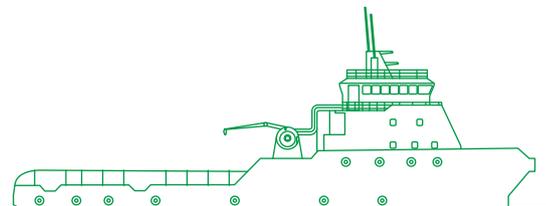
مبارك البحرية Mubarak Marine



Rodinia

Offshore support, towing,
anchor handling and FiFi vessel

At close to 60 m in length, this modern DP2 multipurpose offshore support vessel holds a crew of up to 22 people, and has a maximum bollard pull of 80 tons. It is ideal for towage, anchor handling and firefighting duties, and for supporting construction and diving projects.



Registration

Year of build	2009
Builder	Dayang Shipyard
Port of registry	Kingstown
Flag	Saint Vincent and the Grenadines
Official number	10566
IMO number	9394569
Class	ABS
Manager	Mubarak Marine LLC
Notation	A1 towing vessel, offshore support and anchor handling, AMS, DPS-2, FiFi 1

Main particulars

Length overall	59.8 m
Breadth moulded	15 m
Depth	5.5 m
Operating draft	4.3 m
Max. draft	4.88 m
Operating displacement	2700 mt
Deadweight	1390 mt
GRT	1744
Bollard pull (max)	80 t

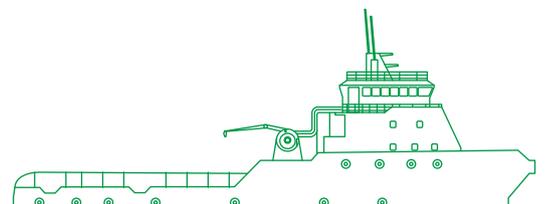
Machinery/propulsion

Main engine	2x 1685 kW (2260 HP) Z drive, 360° Azimuth thruster, kort nozzle 1x 1685 kW (2260 HP) Z drive propellers fixed thruster
Main diesel generator	4x 1825 kW (2447 HP), Cummins QSK 60, 480V / 60Hz
Emergency/harbour generator	1x 170 kW (228 HP) 480 v/60hz, Cummins 6 CTA 8.3
Tunnel bow thruster	2x 560 kW (750 HP) fixed pitch variable speed thrusters electrically driven
Dynamic positioning	DP-2, ABS classed
Sensors and monitoring	As per Class II requirements
Capability plot	All thrusters 100%
Hold position	Cross wind: 36 knots and cross current: 2 knots and FiFi 1

Accommodation

4x single cabin	4 persons
5x 2 men cabin	10 persons
2x 4 men cabin	8 persons
Total accommodation	22 persons

Fully air-conditioned, galley, provision room, stores, mess room, two dayrooms, sewage system as per MARPOL



Deck equipment

Anchor handling/towing winch	Double drum, waterfall type, electro hydraulic
Drum capacity	From brake holding load 250 t (static @ first layer)
Rated pull	150 mt on first layer (0-8.5 m/min) 2 Gypsies for 64 mm and 76 mm chains/direct drive SWL 250 t
Stern roller	1500 mm diameter x 2500 mm length
Tugger winch	2x 10 mt rated pull capacity
Storage reel	813/2300 mm diameter x 1600 mm length
Anchor windlass	12 shots of chain (1080 ft)
Deck cargo crane (telescopic boom)	Electro hydraulic 2 t @ 6.5 m
Firefighting system	FiFi class 1 2x pumps 1500 m ³ /h, 2x monitors 1200 m ³ /h each (foam h ₂ O) Deluge system

Deck space

Clear cargo area	24.4 m x 12.4 m = 303 m ²
Max Deck cargo	535 mt
Deck load density	5 t/m ²
Captans	2/rating pull 5 t x 10 m/min
Shark jaw/tow pins.	SWL 200 t
Deck crane	1.8 t @ 6 m on port side

Capacities

Fuel oil cargo (96%)	639 m ³
Fresh Water (100%)	354 m ³
Fuel oil day tanks (96%)	32.7 m ³
Cement (4 tanks)	149 m ³
Liquid mud/brine (8 tanks @ 96%)	653 m ³
Ballast water/drill water	427 m ³ /306.6 m ³
Foam tank (FiFi)	13.6 m ³

Discharge capacities

Fuel oil	150 m ³ /h @ 70 m
Fresh water	150 m ³ /h @ 70 m
Liquid mud (LM)	2x 150 m ³ /hr @ 60 m
LM system (8 tanks)	632 m ³ integrated/segregated fitted with agitators and fixed cleaning system
Dry bulk	1x compressor rated 50 t/h @ 60 m

Performance and consumption

Top speed	12 knots
Cruising speed	9 m ³ /24h @ 11 knots
Economical speed	8 m ³ /24h @ 10 knots

Navigation/communication equipment

2 Radars	Furuno FAX-28X7/FAR-21X7(-BB) series
3 Gyro compass	2x Yokogawa CMZ900, 1x Tokimec
1 Magnetic compass	Cassens & Plath CPL 10024
1 Autopilot	Included in DP system
1 GPS	MX 420 navigation system
1 AIS	Furuno FA-150
2 Echo sounder	Furuno FE-700 & Furuno DS-50
2 Anemometer	Young 85000
1 Speed log	Furuno DS-50
4 VHF	Furuno FM8800D & ICOM IC M50
1 Weather fax	Furuno FAX 207
Radar	Two with ARPA
Radio system	One compliant with GMDSS A3 rule
GMDSS sea area A3 compliant	
Immarsat sat : 437770810	

DP system

Beier radio IVCS 2102 JSDP	
System with joystick, auto track, DP, autospeed control	
2 DGPS Seastar	9200-G2 and 9205 GNSS
2 Wind sensor	Young wind tracker
3 Gyro compass	Yokogawa CMZ 900 & Tokimec
2 VRS	Navis VRSb201 (2)/811
1 Laser ref system	Cyscan, laser DP reference system
1 RadaScan system	9.25 GHz frequency

Provision crane load chart

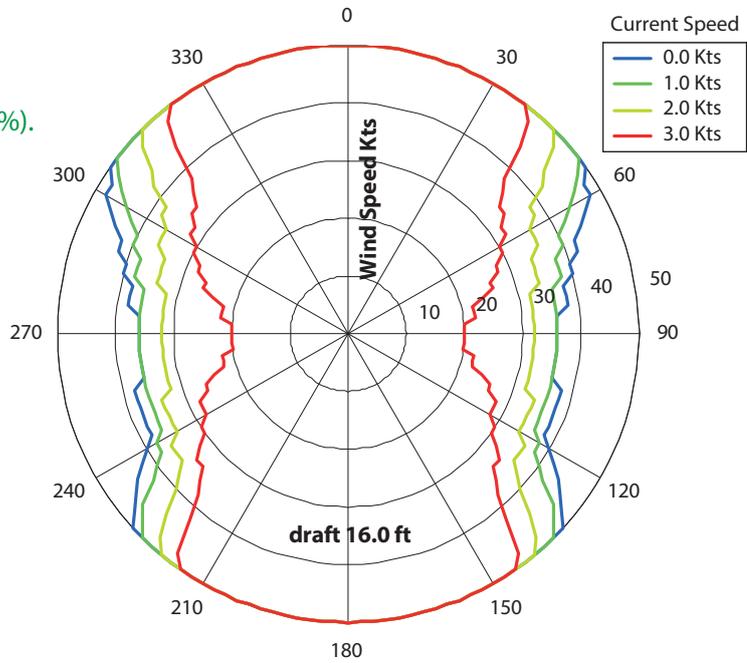
SWL	2 mt
Working radius	2 m - 6.5 m
Max lifting height	25 m
Hoisting speed	10 m/min
Slewing speed	1 RPM
Slewing angle	270 degrees
Luffing time up/down	60 seconds
Max list (at max capacity)	10 degrees
Max trim (at max capacity)	5 degrees

Control and safety

Alarm, monitoring and control system for periodically unattended machinery space
Remote control and monitoring of dry bulk systems
Rescue nets and rescue zone 5 m
8 Lifebuoys
H2S integrated detector 5
Sensors

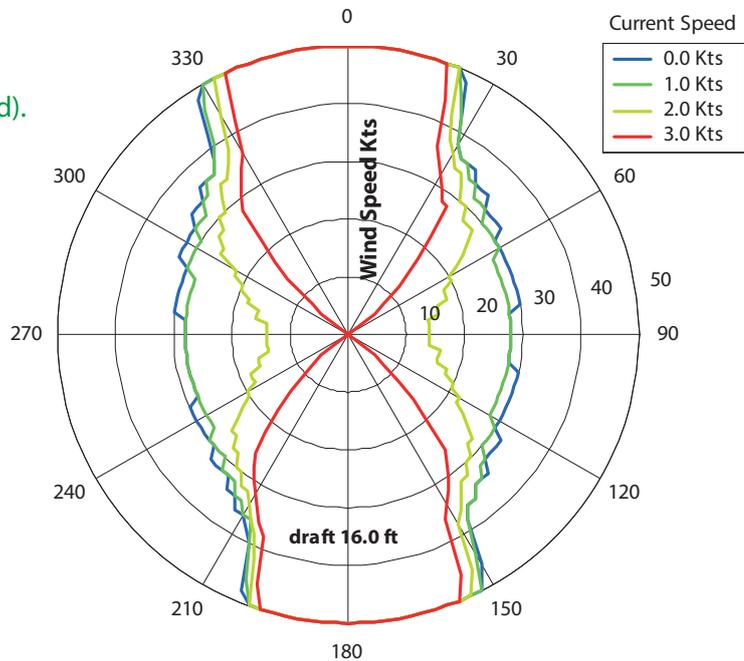
Tank number	Ballast water	Pot water	Fuel oil	Drill water	Dry bulk	Liquid mud	Brine	Lube oil	Sewage	Dirty oil	Foam
1					42.7						
2					42.7						
3					32						
4					32						
5						81.64	81.64				
6						81.64	81.64				
7						81.64	81.64				
8						81.64	81.64				
9						81.64	81.64				
10						81.64	81.64				
12						81.64	81.64				
13		114.3									
14		113.5									
15		63.24									
16		63.24									
17			91.84								
18			91.84								
19			100.1								
20			99.86								
21			97.41								
22			97.41								
23			17								
24			20.63								
25								7.29			
26								1.2			
27								3.6			
28								1			
29			11.7								
30			11.7								
31											6.79
32											6.79
33										5.4	
34										5.4	
35									12.4		
36	41.2			41.2							
37	52.6			52.6							
38	64.5			64.5							
39	36.21			36.21							
40	35.5			35.5							
41	84										
42	85.4										
43	27.5			27.5							
44	27.5			27.5							
45	10.8			10.8							
46	10.8			10.8							
Totals	476	354.2	639.5	306.6	149.4	653.1	653.1	13.09	12.4	10.8	13.6

Capability plot (all Thr 100%).



Propulsors		Environment	
#1 BowF thruster	100% thrust	Max wind speed	50 Kts
#2 BowA thruster	100% thrust	Current Speed	0-3.0 Kts
#3 Port Steerprop	100% thrust	External Disturbance	0 kN
#4 Stbd Steerprop	100% thrust	Colinear environment	
#5 Center Steerprop	offline		
Generator #1	100% power		
Generator #2	100% power		
Generator #3	100% power		
Generator #4	100% power		

Capability plot (BUS A Failed).



Propulsors		Environment	
#1 BowF thruster	failed	Max wind speed	50 Kts
#2 BowA thruster	100% thrust	Current Speed	0-3.0 Kts
#3 Port Steerprop	failed	External Disturbance	0 kN
#4 Stbd Steerprop	100% thrust	Colinear environment	
#5 Center Steerprop	offline		
Generator #1	failed		
Generator #2	100% power		
Generator #3	failed		
Generator #4	100% power		



BUREAU VERITAS

DBA.4.22.1382.240922.IR.00.1.MS

INSPECTION REPORT

Reference: **Name of the Company:** **M/s MUBARAK MARINE, DUBAI, UAE**

Place of Inspection: **On Board RODINIA, Mubarak Jetty DMC, Dubai UAE**

Date of Test: **24.09.2022**

Date of next Inspection: **Not Applicable**

Item Description: **Bollard Pull test**

IMO No.: **9394569**

At the request of M/s MUBARAK MARINE, DUBAI, UAE the undersigned surveyor to Bureau Veritas, acting within the general conditions of services of our society which governs such interventions, did attend at On Board RODINIA, Mubarak Jetty DMC, Dubai UAE to inspect the said item as per client request and reports as under:

Scope: **Witnessing Bollard pull test as per client request**

Vessel Name: **RODINIA**

IMO No.: **9394569**

Port of registry: **KINGSTOWN**

Draft (FWD / AFT): **FWD=3.95 m / AFT 4.15 m**

Depth: **13.0 m**

Tug stern to shore: **200m**

Under keel depth: **8.95 m**

Dia. of wire rope: **56 mm**

Max. Wind speed: **14.0 knots**

Machinery: **3x1685 KW**

KW: **5055 KW**

Sustained Bollard pull: **79.7 MT**

Maximum Bollard pull: **80.1 MT**

Conclusion:

The bollard pull test was witnessed as per the client request. This report is made without prejudice for the ends and purposes for which it was designed.

Issued at Dubai on 24th of Sep, 2022

For BUREAU VERITAS Reviewed by

Mohammed Sarfaraz  *Bibin Lal*

Mohammed Sarfaraz Inspector to Bureau Veritas

Form No.: DXB-IVS-015 Page 1 of 2

Bureau Veritas S.A. Dubai Branch, P.O. Box 8110, Dubai, UAE. Tel No: +971 4 3423281 Fax No: +971 4 3423280 Email: bveritas@bveritas.net.ae

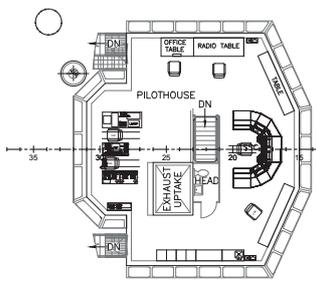
Start time	2:00 PM
ASD Port - RPM	1040
ASD Centre-RPM	940
ASD STBD RPM	1040
Exhaust Temp average Main Diesel Generator	MDG#1 -390 C, MDG#2 -400 C
	MDG#3 -390 C, MDG#4 -390 C
Test data	Pull @100% (10 minutes)
0:00	79.80 MT
1:00	80.10 MT
2:00	79.60 MT
3:00	79.80 MT
4:00	79.60 MT
5:00	79.70 MT
6:00	79.60 MT
7:00	79.30 MT
8:00	79.80 MT
9:00	79.80 MT
10:00	79.70 MT

Load cell calibration Report No.: 04-C416998, Dated: 23.02.2022

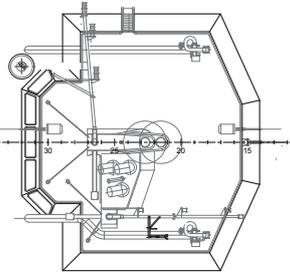
(Load cell serial No.: 2150-59DH3T, Capacity: 150 t)

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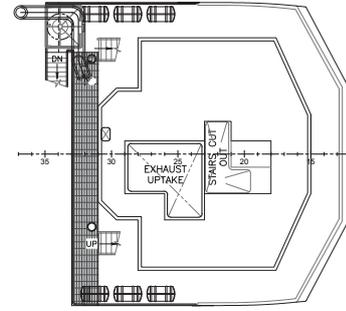
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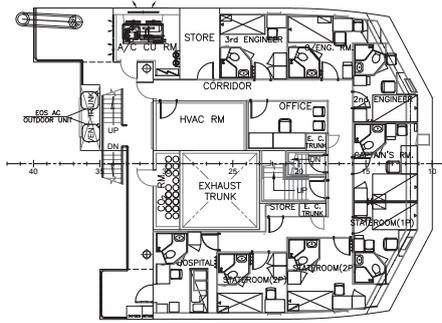
Bridge deck



Pilot house top

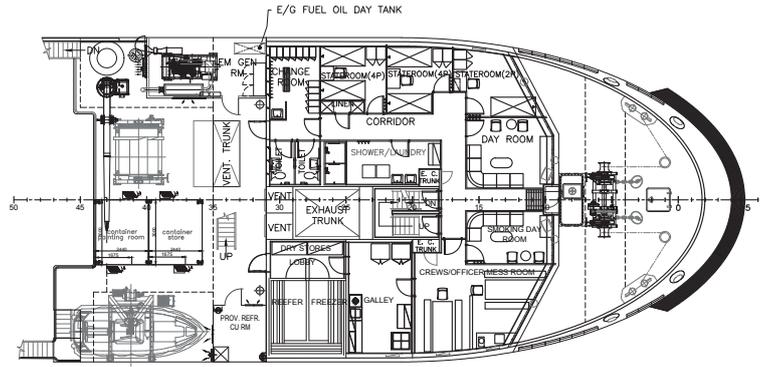


2nd deck



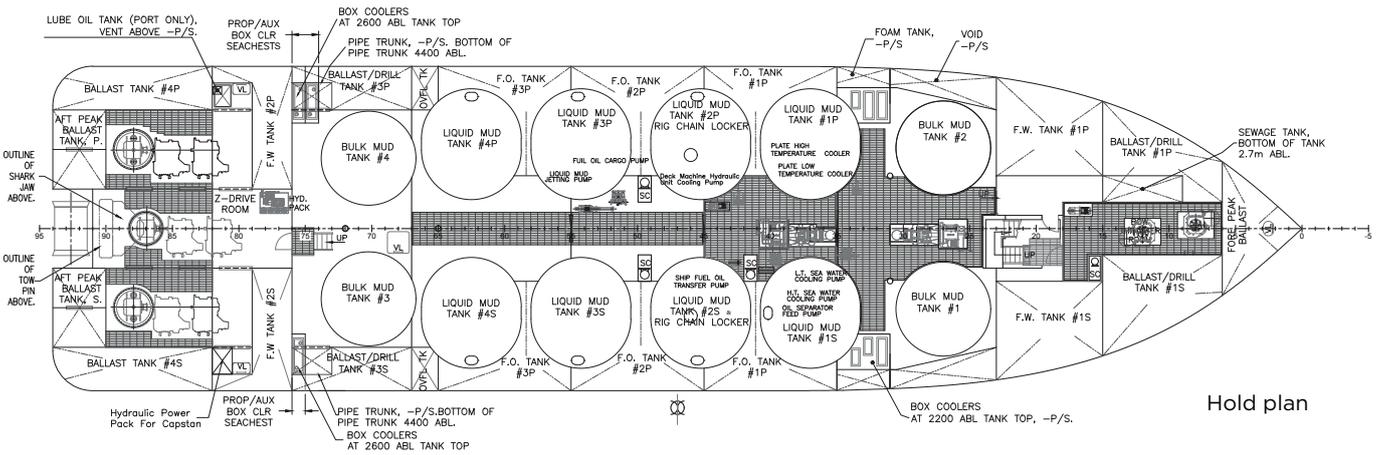
1st deck

3 x 2-MEN STATEROOMS
4 x 1-MAN STATEROOMS

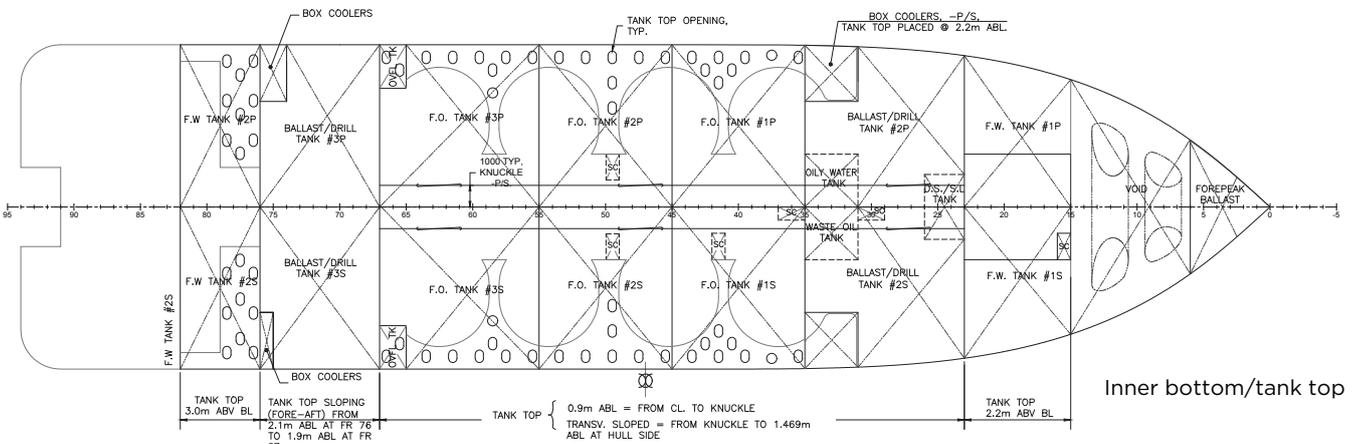


Forecastle deck

1 x 2-MEN STATEROOMS
2 x 4-MEN STATEROOMS



Hold plan



Inner bottom/tank top

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Revision July 2022 | All technical details are provided as a guide only and are subject to owner's changes without notice