

ASTRO ATHENA

60M MULTIPURPOSE OFFSHORE SUPPORT VESSEL

A 60M modern DP2 Multipurpose Offshore Support Vessel equipped with an offshore crane with a total POB Capacity of 60 Total POB. Ideal for Hook Up, Accommodation, General Supply Duties, Cable Laying, IRM, Light Subsea, and Dive/ROV Support Work.

PRINCIPAL PARTICULARS

Builder	:	Fujian Mawei Shipbuilding Ltd.
Designer	:	Fujian Mawei Shipbuilding Ltd.
Classification	:	ABS
Notation	:	+A1 (E) Offshore Support Vessel (SUPPLY-HNLS) ,RW, FFV-1, SPS,+AMS + DPS-2.
Year of Built	:	2023
Flag	:	Singapore

DIMENSIONS

Length Overall	:	59.60M
Beam Moulded	:	15.20M
Depth Moulded	:	6.20M
Draft Designed	:	4.80M
Deadweight	:	approx. 1,500t
Deck Space	:	approx. 420 m2
Deck Strength	:	7.0 t / m2
Deck Cargo	:	approx. 500t

TANK CAPACITY (APPROX.)

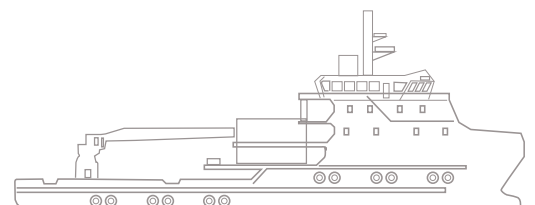
Fresh Water	:	370 m3
Fuel Oil	:	523 m3
Water Ballast /Drill water	:	600 m3
Dry Bulk Cargo Tanks	:	180 m3
Mud / Brine	:	390 m3

SPEED

Speed	:	13.3 knots at 100% MCR
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PUMPS

Bilge & Ballast	:	2 x 75m3/hr @ 60m Hd
Fire G.S Pump	:	1 x 60 m3/h @ 30 m Hd
Fuel	:	2 x 10 m3/hr @ 20m Hd
Fresh Water / Drill Water	:	2 x 100 m3/hr @ 80m Hd
Cargo Oil	:	1 x 150m3/hr @ 80m Hd
Mud/Brine	:	2 x 75 m3/h @ 75mHd
Emergency Fire	:	1 x 35m3/hr @ 60m Hd
Dispersant Pump	:	25m3/hr @ 30m Hd



NAVIGATION & COMMUNICATION SYSTEM

1 x Gyrocompass
 2 x Daylight display colour radars.
 1 x Echo Sounder
 3 X Searchlights
 1 x DGPS
 1 x Navtex receiver
 1 x Inmarsat 'C'
 1 x Inmarsat 'F'
 Full GMDSS A3 Capable Suite

ACCOMMODATION

One Man Cabins	:	10 x 1
Two Men Cabins	:	1 x 2
Four Men Cabins	:	12 x 4
Total Beds	:	60 men
1 x Hospital	:	2 beds

MACHINERY

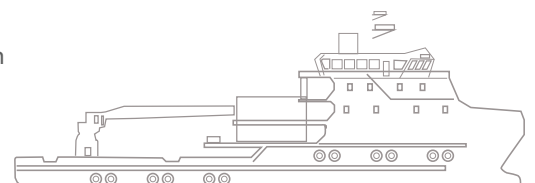
Main engines	:	2 x 2575 HP
Main Generator	:	4 x 500ekW
Emergency Generator	:	1 x 160eKW
Azimuth propellers	:	2 x 1900kw, CPP.
Bow Thrusters	:	2 x 450 kW, transverse tunnel thrusters CPP.
Fresh Water Maker	:	1 x 10 t/d
Oily Bilge Water Separator	:	1.0 m3/hr
Sewage Treatment Plant	:	1 x 50men
FiFi Class 1 Fire Monitors	:	Two (2) units monitors @ 1200 m3/hr each.
Dispersant Booms	:	Oil Dispersant System consisting of 2 spray booms, each of 6m length

SAFETY SYSTEM / RESCUE EQUIPMENT

Life rafts	:	6 x 25 men and 2 x 6men
Life Jackets	:	Fifty-four (54) approved type.
Rescue Boat & Davit	:	One (1) rescue boat with board diesel engine
Rescue zones	:	Length at least 5 m, bulwark gates with 2m width.

DYNAMIC POSITIONING SYSTEM

DPS-2
 Duplex DP workstations with two control and field cabinet
 Three (3) MRUs to DP-2 requirement
 Two (2) UPS
 Two (2) sets of joystick, one at forward station, the other at aft station
 Two sets DGPS Three sets of Gyro compass
 Spare space for Hipap (optional equipment).



DECK MACHINERY

Anchors	:	Two (2) AC-14 HHP stockless anchors, stowed in anchor-pockets, each of 1710kg
Chain Cables	:	Total Length: 467.5M x 36mm
Mooring Lines	:	4 x 170M long mooring ropes of min. 171.6kN breaking strength Anchor
Windlass HPU	:	One (1) electro-hydraulic anchor windlass with two (2) cable lifter and two (2) warping drum.
Capacities	-	6 tonnes at 12m/min for chain cables.
Tugger winches	:	Two (2) sets lugger winches, electro-hydraulic type, 5 t SWL at 12 m / min.
Capstans	:	Two (2) electro-hydraulic capstans @ main deck aft, 5 tonnes at 15m/min.
Cargo Rollers	:	Eight (8) sets of cargo rollers, four (4) at each side inside cargo rail.

CRANE

Main Deck Crane: Offshore rated telescopic pedestal mounted crane capable of Man Riding and Active Heave Compensation

30t @ 3m

10t @ 15m

5.2t @ 30m

Auxiliary Hoist 10mt in Active Heave Compensation.

Stores Handling Crane : One (1) electro- hydraulic crane of capacity SWL 2T @ 10m

ELECTRICAL

System of Supply:

a) 440 volts, 3 phase, 60 Hz - for power (motor)

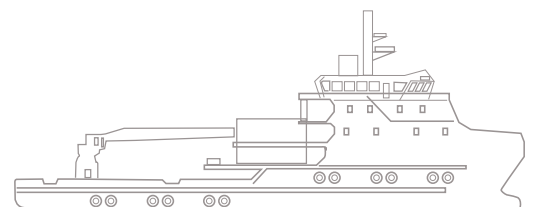
b) 220 volts, 2 phase, 60 Hz - for lightings and small

CONSUMER.

c) 24V D.C. - for radio, navigational aids and other

EMERGENCY LOADS.

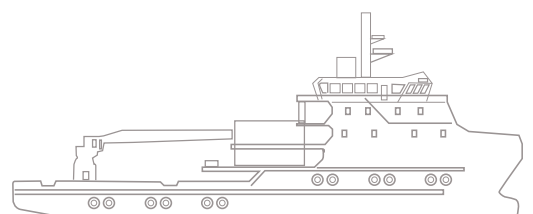
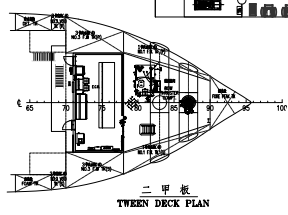
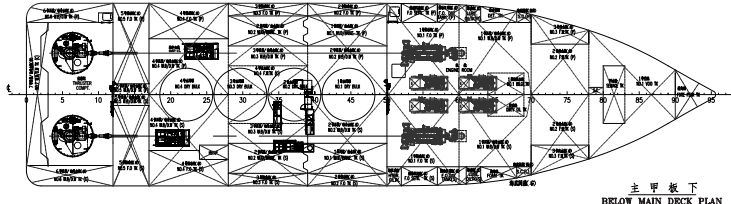
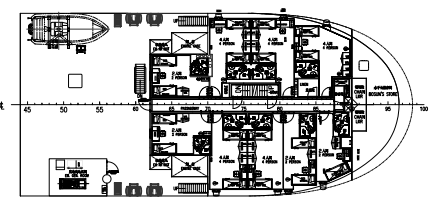
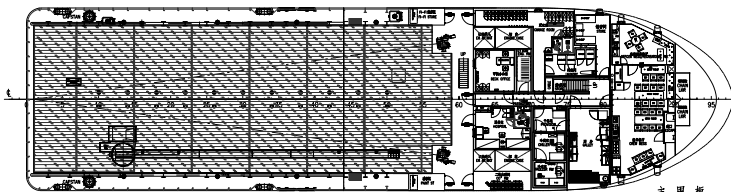
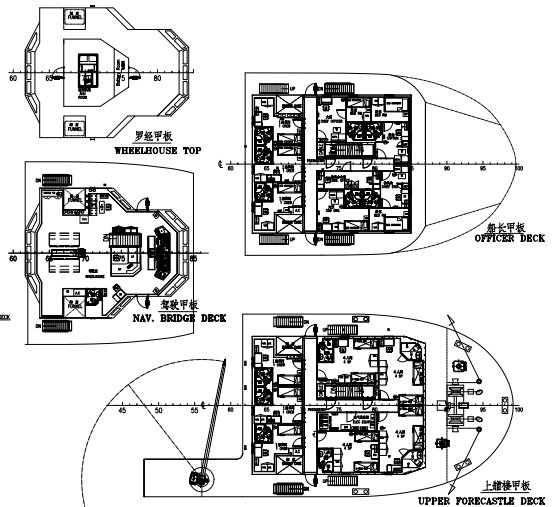
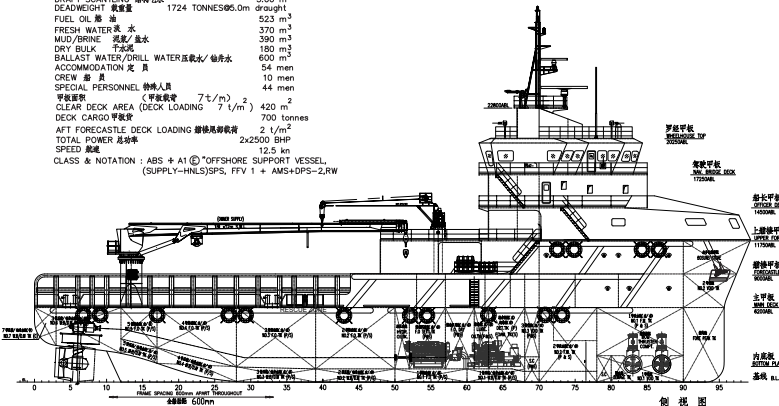
Reefer Plugs: Four (4) 440V, 32A reefer plugs



GENERAL ARRANGEMENTS

总尺度
PRINCIPAL DIMENSIONS

LENGTH OVERALL 总长 59.60 m
 LENGTH BP 艏柱线长 ~57.4 m
 BREADTH MOULDED 宽 15.20 m
 DEPTH MOULDED 型深 6.20 m
 DESIGN DRAFT MOULDED 设计吃水 4.80 m
 DRAFT SCANTLING 结构吃水 5.00 m
 DEADWEIGHT 载重吨 1724 TONNES@95.0m draught
 FUEL OIL 燃油 523 m³
 FRESH WATER 淡水 370 m³
 MILK/BRINE 凝乳/盐水 380 m³
 DRY BULK 干散货 180 m³
 BALLAST WATER/DORILL WATER 压载水/舱存水 600 m³
 ACCOMMODATION 定员 54 men
 CREW 船员 10 men
 SPECIAL PERSONNEL 特殊人员 44 men
 甲板面积 (甲板面积 7 t/m²) 2 420 m²
 CLEAR DECK AREA (DECK LOADING 7 t/m²) 700 tonnes
 DECK CARGO 甲板载重 2 t/m²
 AFT FORECASTLE DECK LOADING 艉楼及艏楼甲板 2 t/m²
 TOTAL POWER 总功率 2x2500 BHP
 SPEED 航速 12.5 kn
 CLASS & NOTATION : ABS + A1 (S) OFFSHORE SUPPORT VESSEL
 (SUPPLY-HULL)SPS, FFV 1 + AMS+DPS-2,RW



CRANE SPECIFICATIONS

The electric box is installed under the deck IP44

Reeving diagram of main hoisting winch

Reeving diagram of auxiliary hoisting winch

Crane control diagram

TECHNICAL PARAMETERS	
1. SWL	See load chart
2. MAX. WORKING RADIUS	35m
3. MIN. WORKING RADIUS	4.2m
4. HOISTING SPEED	70m/min (main hook) 25m/min (AUX. hook)
5. HOISTING HEIGHT	20m (Main hook) 120m (Aux. hook)
6. SLEWING SPEED	~0.5r/min
7. SLEWING ANGLE	380°
8. LIFTING TIME	720S
9. WORKING CONDITION	
WIND	≤5°
TIDE	≤2°
10. Sea state	3Grade (Hsig=3m)
11. ELEC. MOTOR	Y315M-4-B
POWER	132KW
SPEED	1400r/min
POWER RESERVE	AC380V/50HZ
PROTECT CLASS	F
WORKING TYPE	S1
12. OIL FLOW	180L/min
13. DESIGN TEMP.	-5° ~ 50°
14. CERTIFICATE	IBS

LOAD CHART

Working radius (m)	Main Hook SWL (T)	Auxiliary hook SWL (T)	Persomel lifting SWL (T)
4.2	20	3	1.5
5	18	3	1.5
6	16	3	1.5
8	14	3	1.5
12	12	3	1.5
15	10	3	1.5
16	10	3	1.5
20	10	3	1.5
24	10	3	1.5
28	10	3	1.5
32	10	3	1.5
35	10	3	1.5

◆ Main Hook SWL 20T/4.2-6M (LOT15M) (Onboard Hsig=3m)
 × Auxiliary hook SWL 3T/5-35M (Onboard Hsig=3m)
 ▲ Auxiliary hook SWL 1.5T/5-35M (Offboard Hsig=3m)
 ○ Persomel lifting SWL 1T/5-35M (Onboard/Offboard Hsig=3m)

