Astro Offshore
An Adani Group Company



# ASTRO CASTOR

## 5,150 BHP UTILITY / TOWING TUG

### GENERAL

| | |
|---|---|
| **Flag:** | Liberia |
| **Official Number:** | 398410 |
| **Built:** | 2013 |
| **Builder:** | Cheoy Lee Shipyards Ltd, Hongkong |
| **Class:** | ABS |
| **Classification:** | +A1, Towing Vessel, E), +AMS |

### PRINCIPAL PARTICULARS

| | |
|---|---|
| **Length OA:** | 50.00m |
| **Breadth Moulded:** | 12.60m |
| **Depth Moulded:** | 5.75m |
| **Draft (Design):** | 4.50m |
| **Bollard Pull:** | 67.20T |
| **Gross Tonnage:** | 1,022T |
| **Net Tonnage:** | 306T |
| **Deadweight:** | 700T |

### PERFORMANCE

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|---|---|
| **Trial Speed:** | 12.0 Knots |

### MACHINERY

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|---|---|
| **Main Engine:** | Yanmar 6EY26; 2 x 2,610 BHP @ 750 RPM; 4 stroke medium speed; Continuous HP @ 5,520 |
| **Generators:** | 3 x 350kW output Caterpillar C18 @ 415V 3Ph 50Hz |
| **Emergency Generator:** | 1 x 82kW output Caterpillar C4.4 emergency / harbour gen set; Starting Battery to be provided |
| **Bow Thruster:** | 4.5T thrust controllable pitch; Electrical- driven |
| **Gear Box:** | 1 x Reduction Gear; Gear ratio to match engine for appropriate RPM |
| **Propellers:** | 2 x 4-bladed @ dia 2,650mm; Berg CPP in fixed nozzles |
| **Steering Gear:** | 2 x independent electro-hydraulic steering gear; 8T.m torque capacity @ 2 x 45 deg rudder angle |

### NAVIGATION

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|---|---|
| **Radars:** | 2 x Furuno RDP-150 & KODEN-MRD-108P |
| **Gyro Compass:** | 1 |
| **Speed Log:** | 1 x Furuno DS-80 Doppler Speed Log |
| **GPS Navigator:** | 1 |
| **Auto Pilot:** | 1 x Raytheon NP60 |
| **NAVTEX:** | 1 x Furuno NX 700A |
| **DSC Water Keeping Receiver:** | 1 |
| **Gyro Repeaters:** | 3 |

### COMMUNICATION

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|---|---|
| **Inmarsat C:** | 1 x Furuno Felcom 15 |
| **VHF Radio:** | 2 x Furuno FM-8900S & 1 x Sailor TT- 6248A |
| **EPIRB:** | 1 x NEB 2000 |

### DECK EQUIPMENT

| | |
|---|---|
| **Deck Space:** | 220m² |
| **Deck Strength:** | 5.0T / m² |
| **Deck Crane:** | 1 x 2T @ 10m |
| **Deck Reel:** | 1 x electro-hydraulic with drum capacity for 1,000m length of tow 52mm dia wire.<br><br>Pull of 10T@ 20m / min local operation |
| **AH / Towing Winch (Double Drum):** | 1000m x 52mm of FSWR |
| **Anchor Windlass:** | Electro-hydraulic, cable lifter @ 6T |
| **Chain Cables:** | 2 off 550m x 38mm dia. Grade 2, high strength steel (stud link) |
| **Mooring Lines:** | 4 x 140m long; minimum 10T breaking strength |
| **Towing / Anchor handling:** | 1 x electro-hydraulic waterfall type double drum towing/anchor.<br><br>Brake holding capacity @ 180T<br><br>Pull/Speed: 75T x 8m / min (1st speed) |
| **Winch:** | Brake holding capacity @ 180T |
| **Towing Wires:** | 2 x 1,000m 52mm dia wire rope |
| **Stern Roller:** | 1 x 120T SWL @ 3.5m x 1.5m dia |
| **Towing Pin / Shark Jaws:** | 1 x Set 200T SWL |
| **Tugger Winch:** | 2 x 10T @ 12m / min |
| **Capstan:** | 2 x 5T @ 15m / min |
| **Anchors:** | 2 x high holding power @ approx 970kg. AC-14 totally recessed |
| **Bow Winch:** | Bow winch pull of 10 tons; min brake holding 100 tons |
| **Bollards:** | 10 x 10"NB, Sch 80 pipe double bollards. 1 x 300NB, sch 80 pipe cruciform bollard |

### CAPACITIES

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|---|---|
| **Fresh Water:** | 150.0m³ |
| **Fuel Tank:** | 550.0m³ |

### DISCHARGE RATES

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|---|---|
| **Fuel Oil Transfer Pump:** | 2 x Horizontal Gear pumps @ 10m³ / hr @ 20 mwc; 415V / 3Ph / 50Hz; |
| **Cargo Oil Pump:** | 1 x gear pump; 70m³ / hr @ 50m head; 415V / 3Ph / 50Hz |
| **Oily Bildge Separator:** | 1 x OWS with capacity 0.5m³ / hr @ 4kg / cm² |
| **Sludge Transfer / Dirty Oil:** | 1 x Electric driven gear pump or horizontal positive displacement type screw pump; 5m³ / hr @ 45m head |
| **Bilge / Ballast:** | 1 x Horizontal Self Priming centrifugal pump @ capacity of 70m³ / hr @ 50mwc. 415V / 3Ph / 50Hz |
| **FW / SW / Standby Pressure Set:** | 1 complete set @ 1 KW motor; 2,800RPM ; 415V /3 / 50HZ. 1 x Pressure tank @ 300 litres with maximum working pressure 30-40PSI |
| **Lube Oil / Fuel Oil Purifier:** | 1 x 1,200 Ltrs / hr |
| **Air Compressors:** | 2 x 2 stage compressors with each capacity 25m³ / hr FAD x 30kg / cm² ; 415V / 3Ph / 50Hz |

## RESCUE EQUIPMENT

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|---|---|
| **Rescue Boat:** | 1 x 6 men \| 25HP |
| **Life Raft:** | 4 |
| **Lifebuoys:** | 8 units ; 4 x lifebuoys @ 90 feet buoyancy line & 4 x lifebuoys @ 90 feet buoyancy line and self-igniting electric lights & 2x smoke signals |
| **Life Jackets:** | 27 units |
| **Pyrotechnics:** | 12 units; 2 x orange smoke signals each @ 120 seconds discharge time and waterproof |

## ACCOMMODATION

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|---|---|
| **One Man Cabins:** | 2 |
| **Two Man Cabins:** | 3 |
| **Four Man Cabins:** | 4 |
| **Total POB:** | 24 |

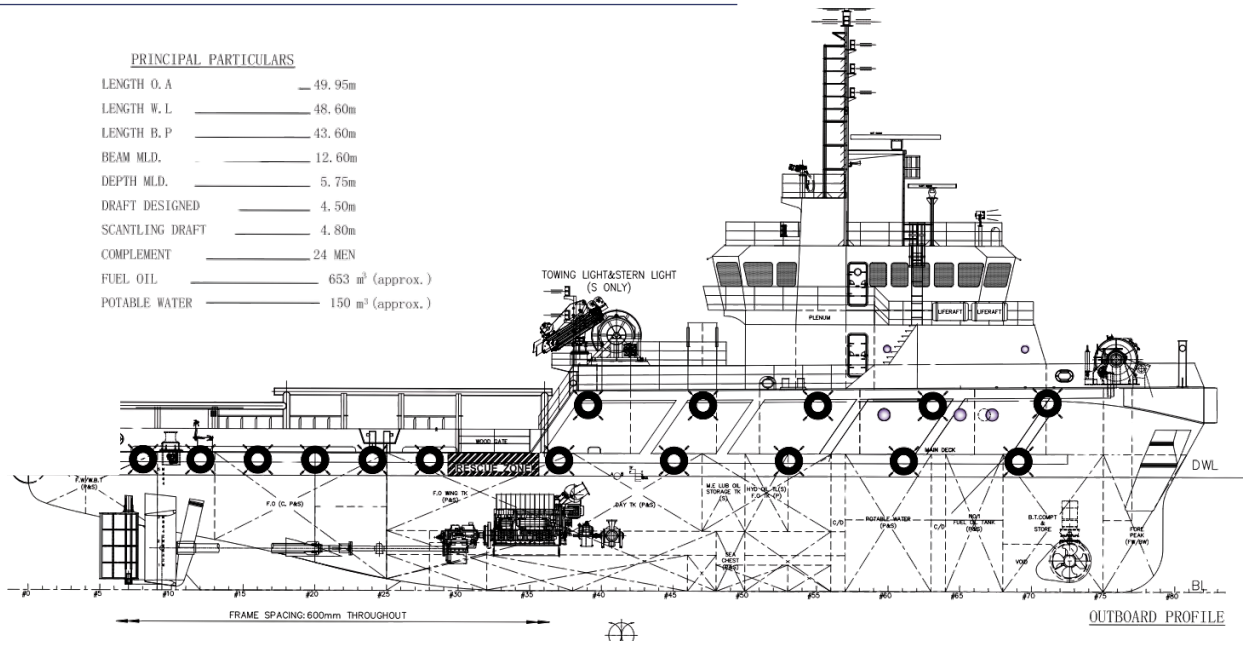
## SAFETY EQUIPMENT

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|---|---|
| **FiFi Class 1 System Pumps:** | 1 x seawater fire pump 1,500m³ / hr @ 14kg / cm² \| 2 x Fire Monitors |
| **Fireman's Outfit:** | 4 x complete sets |
| **Fire Blanket:** | 2 |
| **Fire Axe:** | 2 |
| **Emergency Fire Pump:** | 1 x 25m³ / hr @ 45m head |
| **CO2 System:** | 1 unit x gas bottles c/w quick operated valves and auto alarms to be provided for engine room fire and Bow Thruster room fighting |
| **G.S & Fire Pump:** | 1 |

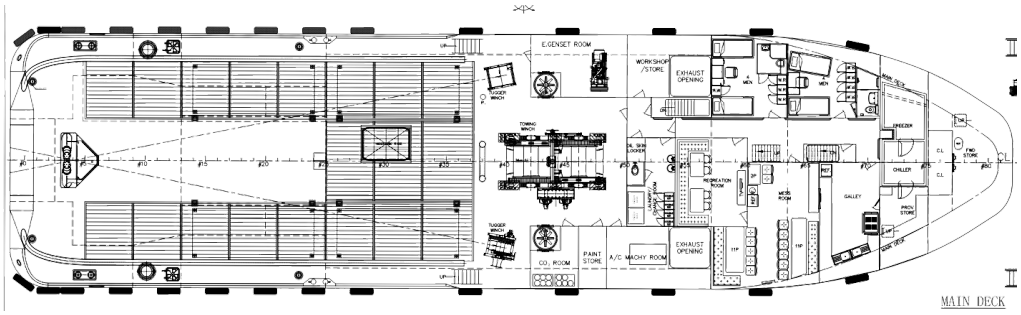
## GENERAL ARRANGEMENTS

PRINCIPAL PARTICULARS

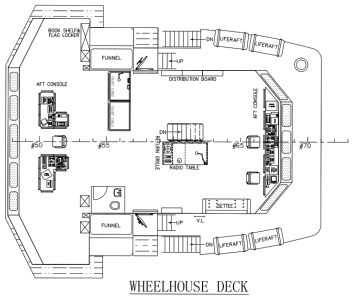
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|---|---|
| LENGTH O. A | 49. 95m |
| LENGTH W. L | 48. 60m |
| LENGTH B. P | 43. 60m |
| BEAM MLD. | 12. 60m |
| DEPTH MLD. | 5. 75m |
| DRAFT DESIGNED | 4. 50m |
| SCANTLING DRAFT | 4. 80m |
| COMPLEMENT | 24 MEN |
| FUEL OIL | 653 m³ (approx. ) |
| POTABLE WATER | 150 m³ (approx. ) |



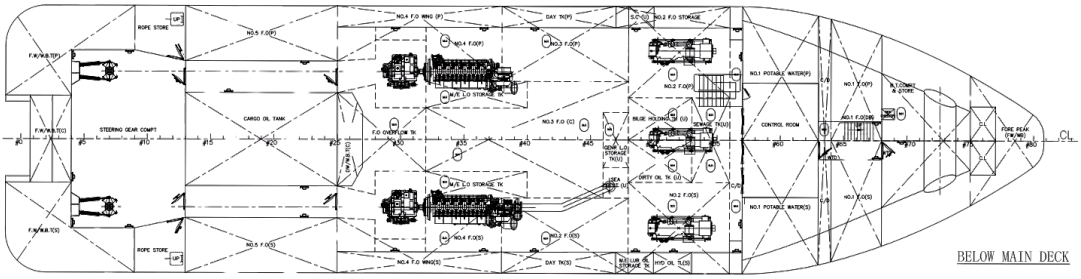

OUTBOARD PROFILE



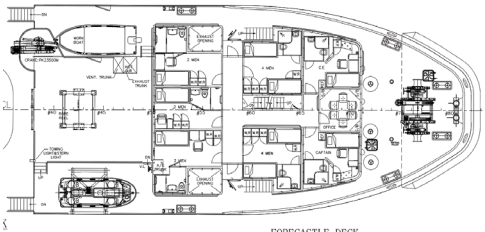

MAIN DECK




WHEELHOUSE DECK




BELOW MAIN DECK



FORECASTLE DECK

All particulars are believed to be correct but without guarantee