

Topaz Legend

59 M - 5150 BHP - FIFI 1 - AHTSV

Vessel Specifications



Vessel Specifications



Dimensions

Length overall	59.25 m
Length between perpendicular	52.20 m
Breadth moulded	14.95 m
Depth moulded	6.10 m
Draft moulded	4.95 m
Deadweight	1395.63 mt
Registered tonnage	Gross 1678 t / net 503 t

Machinery

Main engines	2 x 2575 bhp Caterpillar 3516B HD DITA LA3926
Main generators	3 x 350 ekW, 415 V / 3 Ph / 50 Hz Caterpillar CAT.C18 DITA marine genset
Emergency generator	1 x 65 ekW, 415 V / 3 Ph / 50 Hz Caterpillar CAT.C4.4 DITA marine packaged genset
Bow thruster	6.2 tonnes, CPP (elec. motor driven) Tunnel type: KAMOME TCB-70DSMA
Propulsion	2 x CPP in Kort Nozzles BCP 690 HDX-400
Rudders	2 x high-performance streamline 'trailing flap', Kamome, Japan
Steering gear	2 x 4.0 Tm RIQ / Kobelt
Sewage treatment plant	1 x 42 men CAP; Jiangsu Nanji Machinery WCB-50
Dynamic positioning	DP-1 Class and associated reference systems
Oily water separator	1 x 1 m ³ / hr c/w 15 ppm alarm, Ocean Clean; OCB-E-1-1-0
Freshwater maker	1 x 5 tonnes / day, Petsea Ro; SW-Y 30 / 52

Capacities

Fuel oil	528 m ³
Freshwater	374.84 m ³
Ballast / drill water	396.3 m ³
Liquid mud	413.7 m ³
Cement tanks	187 m ³ (4 x 46.72 m ³); UNISLIP
Lube oil / hydraulic oil	6.35 m ³ / 6.36 m ³
Foam / detergent	13.3 m ³ / 13.3 m ³
Deck cargo capacity	500 mt @ 7.5 mt / m ²
Clear deck area	340 m ²

Registration

Year built / builder	2010 / Fujian Funing Ship Building Co., Ltd.
Port	Port of Majuro
Flag	Marshall Islands
Class	ABS + A1(E) + AMS + DPS1, offshore support vessel, Fire Fighting vessel class 1, towing vessel
Owners	XT Shipping Limited



Transfer rates

Fuel	1 x 150 m ³ / hr @ 75 mlc (vert. screw-Azcue)
Freshwater	1 x 100 m ³ / hr @ 75 mlc (vert. centrifugal-Azcue)
Drill water / ballast water	1 x 100 m ³ / hr @ 75 mlc (vert. centrifugal-Azcue)
Liquid mud	2 x 70 m ³ / hr @ 75 mlc (Mission)
Bulk cement	2 x 13 m ³ / min @ 5.6 bar air compressors; Airman, Unislip SWS75S-57UP
Bilge / ballast	2 x 75 m ³ / hr @ 40 mlc (hori. centrifugal-Azcue)
GS / fire pump	1 x 75 m ³ / hr @ 40 mlc (hori. centrifugal-Azcue)

Deck Crane

Port side	Hydraulic telescopic crane, SWL: 3000 kg; working range: 9 m; hoisting ht: 25 m; hoisting speed: 0~14 m / min
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Firefighting equipment and anti-pollution equipment

External

FIFI system	Class 1 with water curtain all round
Fire pump	2 x 1650 m ³ / hr @ 121 mlc, FFS SFP250 x 350 driven by front PTO of M/E
Monitors	
- (water / foam)	1 x 300-1200 m ³ / hr, FFS1200-300LB (long barrel)
- (water)	1 x 1200 m ³ / hr, FFS1200LB (long barrel)
Oil dispersant system	GS pump 75 m ³ / hr 2 x 1-1/4" NPT UOC-600 off-center flat spray Veejet nozzles 1 x PI-25 around the pump inductor

Internal

Emergency fire pump	1 x 35 m ³ / hr @ 45 mlc (hori. centrifugal-Azcue)
Locker with fireman's outfit	6 sets (as per class requirements)
Portable FiFi appliances	As per safety plan and fire control plan
CO ₂ system for engine room	Total flooding fixed system Fire detection & alarm system in living spaces & engine room Fire main system with fire hydrants and fire hoses as per class requirements

Safety Equipment

Life rafts	6 x 25 men inflatable type SOLAS approved
Rescue boat	1 x 6 men; 4.5 m FRP rescue boat (speed <full load>: 6 knots) w/c 18.6 kW (25 HP) Mercury engine
Rescue boat davit	21 kN rescue boat / raft davit, Wuxi Dongwu Max. SWL: 21 kN, max. slewing / hoisting load: 14 kN
Life buoy	Total 8 pcs, various types as per SOLAS
Life jacket	42 + 11 additional - SOLAS approved type
Immersion suit	46 pcs - SOLAS approved type
Embarkation ladder	2 pcs

Accommodation (42 bunks)

4 x 1 berth cabin	4 berths
3 x 2 berth cabins	6 berths
8 x 4 berth cabins	32 berths
Sick bay / hospital	1 berth

All cabins fully air-conditioned & c/w attached toilet



Communication and navigation

GMDSS station (A1 + A1 + A3)

- RC-1800T - one set table mount rack console
- FS-2570 - one set 250 W SSB radio system, Furuno
- Felcom-15 - No. 1 INM-C with SSAS, Furuno with EGC receiver
- Felcom-15 - No. 2 INM-C, Furuno with EGC receiver
- FM-8800S - No. 1 VHF radiotelephone, Furuno
- FM-8800S - No. 2 VHF radiotelephone, Furuno
- FAR-2117 - one set X-Band ARPA radar, Furuno
- FR-1510MK3 - one set X-Band radar, Furuno
- GP-150, Furuno
- FE-700, Furuno (1 set)
- DS-80, Furuno (1 set)
- FA-150, Furuno (1 set)
- FAX-408, Furuno (1 set)
- NX-700B, Furuno (1 set)
- E5, McMurdo (1 set)
- S4, McMurdo 9 GHz (2 sets)
- R2, McMurdo (3 sets)
- RM-YOUNG type, RM-YOUNG (1 set)

Radar system

- GPS receiver
- Echo sounder
- Doppler speed log
- AIS system
- Weather fax receiver
- Navtex receiver
- EPIRB
- Radio transponder
- Two-way portable VHF
- Anemometer

Windlass / mooring

Towing / AH winch

- 1 x electro-hydraulic double drum
- Plimsoll PC-AHTW / WF-150 / 200

Upper & lower drum
Rated pull (1st layer)

- 1000 m (L) x 56 mm (diameter) SWR @ 10 layers
- 150 mt @ 0~6 m / min (1st speed)
- 75 mt @ 0~12 m / min (2nd speed)
- 25 mt @ 0~36 m / min (3rd speed)

Brake holding
Rope reel

- 200 mt static @ 1st layer
- 1 x electro-hydraulic Plimsoll PC-HSW / SD-05
- Drum capacity: 1000 m (L) x 56 mm (diameter) SWR @ 10 layers
- Rated pull: 5 t x 3 m / min (1st layer)

Anchor windlass

- 1 x electro-hydraulic Plimsoll PC-HAW / GG-38U2
- 6.3 t @ 12 m / min suit for 38 mm (diameter) chains grade U2

Bow anchors
Chains
Stern roller
Shark jaws

- 2 x 1305 kg AC-14 high holding power anchors
- 440 m (L) x 36 mm (diameter) grade U2 (total for both sides)
- Diameter 1600 mm x L-4400 mm (SWL: 200 mt)
- 1 x SWL 200 mt hydraulic shark jaw - Plimsoll
- (i) Wire size: 32 mm to 114 mm
- (ii) Chain size: 38 mm to 114 mm

Tow pins
Capstan

- 200 mt Hydraulic tow pin - Plimsoll
- 2 x 5 t @ 15 m / min electro-hydraulic
- 400 mm diameter Plimsoll PC-HVC-05

Tugger winch

- 2 x 10 t @ 15 m / min electro-hydraulic;
- Plimsoll: PC-HUW10UR-400, PC-HUW10UL-400

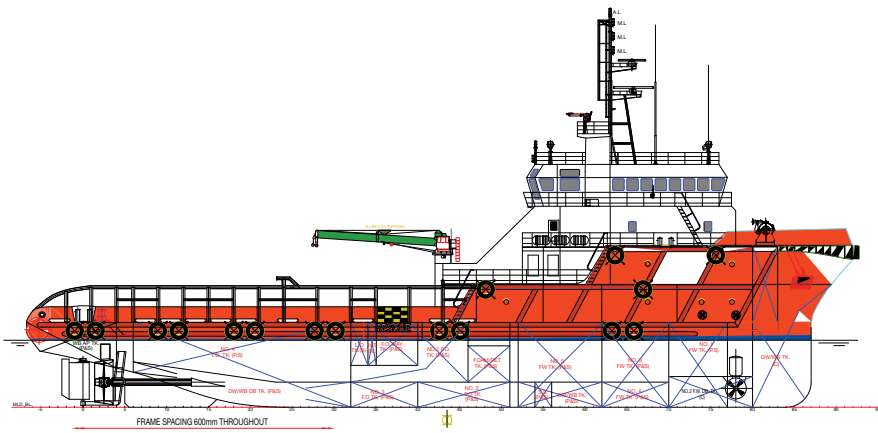
Liquid mud agitator

- Electric driven 1 / mud tank (Jiangsu Jichuan Pump Co., Ltd.)

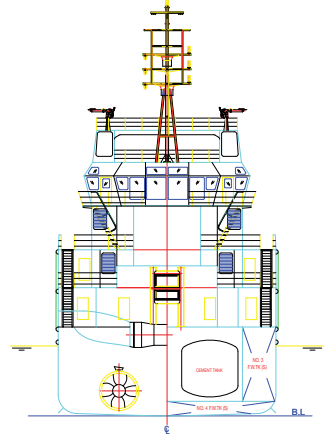
Performance

- Speed Max. 13 knots
- Bollard pull 82 tonnes

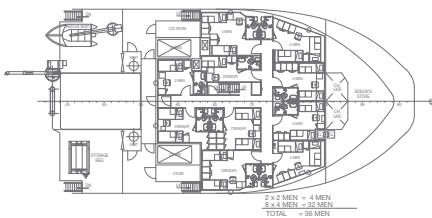
GA Specifications



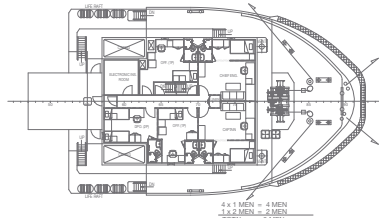
Outboard profile



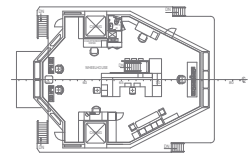
Front view



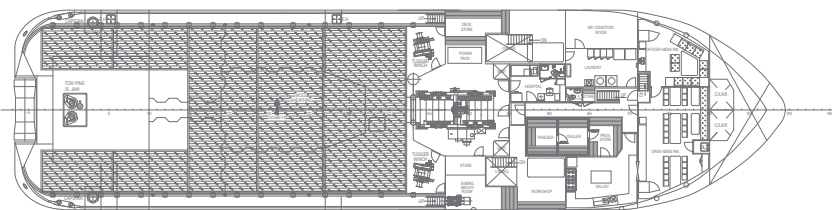
Forecastle deck



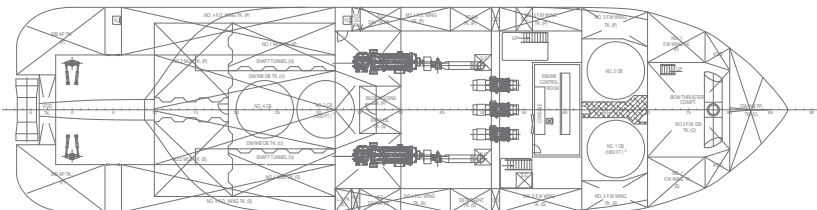
Upper forecastle deck



Bridge deck



Main deck



Below deck

Principal Dimensions

Length (O.A.)	59.250 m
Length (W.L.)	56.000 m
Length (B.P.)	52.200 m
Beam (Mld.)	14.950 m
Depth (Mld.)	6.100 m
Design draft	4.950 m
Fuel oil	540 m ³
Freshwater	360 m ³
Drill water / W.B.	400 m ³
Mud	400 m ³
Clear deck area	340 m ²
Deck cargo	500 tonnes
(Deck loading = 7.5 t / m ²)	
Dry bulk tanks (4 x 1650 ft)	187 m ³
Main propulsion engine	2 x 2575 bhp
Speed (trials)	13.0 knots
Bollard pull	82 tonnes
Complement	60 tonnes

Class and notation:

ABS A1 E "Offshore support vessel, Fire Fighting vessel class 1" + AMS + DPS-1

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