



ATLANTIC KINGFISHER SPECIFICATION

REGISTRATION

- Built: Halifax Shipyard 2002
- Flag: Canadian
- Official Number: 824770
- IMO Number: 9255892
- Call Sign: CFH 8948
- Vessel Type: UT722-L Anchor Handling Tug Supply Vessel
- Classification: DNV
- Main Class: +1A1 Tug Supply Vessel SF
- Additional Class: FiFi I/II, EO, ICE-1C, TMON, DYNPOS-AUTR

DIMENSIONS

- Length overall: 80.00 m
- Length BP: 69.30 m
- Breadth, moulded: 18.00 m
- Depth, moulded: 8.00 m
- Design draft: 6.00 m
- Maximum draft: 6.54 m
- Gross Tonnage: 3453 t
- Net Tonnage: 1147 t
- Deadweight: 2750 mt

MACHINERY

- Main Engines: 4 x 4023 = Total 16,092 BHP (12,000 KW)
Bergen diesel engines Type B32:40L6P
- Propellers: 2 x 3900mm Ulstein CPP propellers in Kort nozzles
- Rudders: 2 x Ulstein High Lift flap rudders
- Steering Gear: 2 x independent Ulstein Tenfjord electric-hydraulic steering gear. Max angle 45, max flap angle 55
- Thrusters: 1 x 1200 BHP (833 KW) forward swing-up azimuth thruster with CPP
1 x 1200 BHP (833 KW) forward tunnel thruster with CPP
2 x 800 BHP (590 KW) aft tunnel thrusters with CPP
- Generators: 2 x Shaft, 2240 KW, 450V, 60/50hz, each
1 x Auxiliary, 1070KW, 450V/230V, 3-phase, 60hz
1 x Auxiliary, 370KW, 450V/230V, 3-phase, 60hz
1 x Emergency, 99 KW, 450V/230V, 3-phase, 60hz

CONTROL SYSTEMS

- Consoles: Full navigation console forward and full navigation & main winch control console aft, providing full 360° view from bridge plus an 8 camera system providing views of decks fore & aft, all winch drums, thruster rooms, etc, with monitors located at for & aft consoles
- Joystick: 2 x Ulstein Poscon, independent from DP joysticks with 4 plug in stations
- DP System: Kongsberg SDP 21, Class 2 fully redundant system
- Reference Systems: 2 x DGPS Simrad DPS 100 HIPAP / HPR Simrad 410, with 1 x 3,000 m depth transponder
Fanbeam Laser - MDL MK III
- Sensors: 2 x MRUs - Seatek MRU 5
2 x wind sensors
2 x C.Plath Navigat X MK1

Note: DP system utilizes azimuth thruster, both tunnel thrusters, both main engines, with full integration of rudders.

**PERFORMANCE**

- Maximum Speed: 16 knots
- Economic Speed: 12 knots @ 60hz
- Super Economic Speed: 8 knots in combinator mode (50hz)

FUEL CONSUMPTION

- Steaming maximum (towing): 58 m³/day
- Steaming maximum: 47 m³/day
- Economic Speed: 20 m³/day
- Steaming super economic: 15 m³/day
- Standby: 6-9 m³/day
- Gen. at anchor or in port: 0.5 m³/day

TOWING AND ANCHOR HANDLING

- Bollard Pull: DNV certified
170.9 tonnes continuous bollard pull
173.7 tonnes maximum bollard pull
186.1 tonnes continuous bollard pull with forward azimuth thruster running
- Towing/Anchor Handling Winch:
1 x Ulstein Brattvaag 500 T SWL declutchable Tow/AH drum, with hydraulic spooling gear

Drum Size Main/Socket:

Socket Portion: 2800 mm diameter x 4050 mm depth x 900 mm width
Main Portion: 2800 mm diameter x 4050 mm depth x 4250 mm width
Wire Capacity: 4250 m length x 83 mm diameter
Dividing Flange Opening: 300 mm

Low Gear:

1st layer: 500 tonnes @ 0-18 m/min, lowering 0-18 m/min,
Mid layer: 440 tonnes @ 0-21.5 m/min, lowering 0-21.5 m/min
Top Layer: 350 tonnes @ 0-25 m/min, lowering 0-25 m/min

Dynamic Braking:

1st layer: 125-625 tonnes @ 0-24 m/min
Mid layer: 110-550 tonnes @ 0-28 m/min
Top layer: 090-440 tonnes @ 0-33 m/min

High Gear:

1st layer: 250 tonnes @ 0-35.5 m/min, lowering 0-35.5 m/min,



- Mid layer: 205 tonnes @ 0-43 m/min, lowering 0-43 m/min
 Top Layer: 175 tonnes @ 0-50 m/min, lowering 0-50 m/min
 Dynamic Braking :
 1st layer: 62-312 tonnes @ 0-48 m/min
 Mid layer: 50-255 tonnes @ 0-56 m/min
 Top layer: 45-220 tonnes @ 0-66 m/min
- Work Winch:
 1 x Ulstein Bratvaag 400 T SWL declutchable work drum, with hydraulic spooling gear.
 Drum Size Main/Socket:
 Socket Portion: 1500 mm diameter x 3750 mm depth x (900)mm width
 Main Portion: 1500 mm diameter x 3750 mm depth x (4100)mm width Wire Capacity - 5800 m length x 83 mm diameter
 Dividing Flange opening: 300 mm
 Low Gear:
 1st layer: 400 tonnes @ 0-15 m/min, lowering 0-15 m/min
 Mid layer: 235 tonnes @ 0-25 m/min, lowering 0-25 m/min
 Top Layer: 170 tonnes @ 0-35 m/min, lowering 0-35 m/min
 Dynamic Braking :
 1st layer: 100-500 tonnes @ 0-30 m/min
 Mid layer: 60-300 tonnes @ 0-50 m/min
 Top layer: 45-210 tonnes @ 0-70 m/min
 High Gear:
 1st layer: 200 tonnes @ 0-30 m/min, lowering 0-30 m/min
 Mid layer: 115 tonnes @ 0-50 m/min, lowering 0-50 m/min
 Top Layer: 85 tonnes @ 0-70 m/min, lowering 0-70 m/min
 Dynamic Braking:
 1st layer: 50-250 tonnes @ 0-60 m/min
 Mid layer: 30-150 tonnes @ 0-100 m/min
 Top layer: 22-105 tonnes @ 0-140 m/min
 - Storage Winches:
 2 x Ulstein Bratvaag 138T SWL winches, with hydraulic spooling gear
 Drum Size Main/Socket:
 Socket Portion: 1500 mm diameter x 4500 mm depth x 900 mm width
 Main Portion: 1500 mm diameter x 4500 mm depth x (4500)mm width
 Wire/Rope Capacity: 4000 m x 76 mm wire or 1600 m x 8 inch synthetic rope.
 Work Duty:
 1st Layer 38 tonnes line pull @ 0-22m/min, 170 tonnes dynamic braking at max. 44 m/min
 Last Layer 56 tonnes pull @ 0-54 m/min, 70 tonnes dynamic braking at max 106 m/min
 - Spare Tow Wire: 1 x Spare Drum 1000 mm x 2600 mm x 2200mm below main deck
 Capacity 1400 m of 81 mm wire
 - Cable Lifters: 2 x non-declutchable cable lifters, two for

- 76mm chain and two for 84 mm chain, fitted outside of the towing drum
- Chain Lockers: 4 x chain lockers each 136.25 m³, total 545 m³
 Locker Capacities each at 30% broken stowage
 2.5" = 6841', 3.0" = 4396, 3.25" = 3800', 3.5" = 3238, 4.0" = 2608' 4.5" = 2200'
 - Karmforks: 2 x 750T SWL. Remote control from Bridge and aft deck
 - Towpins: 4 x 240T SWL. Remote control from Bridge and aft deck
 - Stern Roller: 1 x twin stern roller 550 T SWL, 2996 mm width x 3.5 m diameter
 - Grapnel: 1 x 250 T SWL, Ansel Jones Forgings
 - J-Hook: 1 x 250 T SWL, Ansel Jones Forgings

DECK MACHINERY

- Tuggers: 2 x hydraulic, port and stbd main deck
 1st Layer: 20 tonnes @ 0-22 m/min,
 2nd Layer: 10 tonnes @ 0-33 m/min,
 Light line: 0-70 m/min, hydraulic
 Capacity: 600 m x 76mm wire
- Capstans: 2 x hydraulic, port and stbd main deck aft
 10 tonnes @ 0-22 m/min combined with drum for 45m x 20mm wire
- Windlass/Mooring Winch: 1 x 15 tonnes 0-16.5 m/min, hydraulic
- Anchors: 2 x stockless anchors, 2850 kg each
- Crane: 2 x Hydramaskin, 5 tonnes, 10 hinged arm
- FRC Davit: 2 x Hydramaskin heave compensated davit

DISCHARGE RATES

- Potable Water: 250 m³/hr - 9.0 bar Pressure Relief @ 9.7 bar
- Drill Water: 250 m³/hr - 9.0 bar Pressure Relief @ 9.7 bar
- Fuel: 250 m³/hr - 9.0 bar Pressure Relief @ 9.7 bar
- Mud: 2 x 75 m³/hr - 18.0 bar Pressure Relief @ 19 bar
- Brine: 2 x 75 m³/hr - 18.0 bar Pressure Relief @ 18.7 bar
- Base Oil: 125 m³/hr - 9.0 bar Pressure Relief @ 9.7 bar
- Dry Bulk: 80 ton/hr - 5.6 bar, 4 aeration jets per tank
 2 Tamrotor compressors, 22.8 m³/min each, pressure 5.6 bar
 Pressure Relief @ 6.1 bar

Note: Discharge rates for dry bulk will differ with product, ie; Gel discharge rates will be much faster. All pumping arrangements are totally redundant with equivalent backup/standby pump.

CAPACITIES/TANKAGE

- Clear Deck Space: 550 m²
- Deck Cargo: 1100 tonnes
- Deck Loading: Cargo deck - 5 tonnes/m²
- Anchor handling deck - 10 tonnes/m²
- Fuel: 1100 m³
- Potable Water: 500 m³
- Ballast Water: 1600 m³
- Drill Water: 1600 m³
- Brine/Glycol: 272 m³
- Liquid Mud: 430 m³
- Base Oil: 200 m³



- Dry Bulk: 4 tanks totaling 10,000 ft³ (283 m³)
- Tank Washing: 4 x Butterworth, hot and cold water mud tank washing
- Tank Recirculation: All tanks are capable of recirculation
- Tank Agitators: 4 x hydraulic agitators in mud tanks. Also capable of individual recirculation

Note: Vessel tankage and piping arrangements are extremely flexible, allowing for reconfiguration to the charterer's operational requirements.

EXTERNAL FIRE FIGHTING (Fi Fi I/II)

- Pumps: 2 x Unitor Z22-500/400-80, 4122 m³/hr (Total: 8,244 m³/hr)
- Monitors: 2 x Unitor Firechief FC3600, 3600 m³/hr, (Total 7,200 m³/hr) Bridge remote controlled

System complies with DNV FiFi II specifications for operational throw distances and is complete with external drenching system, foam generator portable Turbex MKII producing 200 m³/min consumption 4.5 L/min, 8 fireman's suits/10 breathing apparatus, spare BA bottles, and recharging compressor.

LIFESAIVING

All equipment as per SOLAS, CCG, and Standby Vessel Letter of Compliance.

- Survivor Capacity: 330 persons
- Rescue Craft: 2 x Springer MP 741, 20 person capacity, diesel jet FRC
- Liferafts: 6 x RFD, total capacity: 120 persons
- Rescue Frame: 1 x Dacon Scoop
- EPIRB: 1 x Hydrostatic Release
- SARTS: 2 x Tron
- GMDSSVHF: 3 x SKANTI with rechargeable and extra batteries
- Recovery Winch: 1 x powered winch port side SWL 300 Kg

ELECTRONICS

- Radars: 1 x Furuno (X-Band)
1 x Furuno (S-Band)
- Auto Pilot: 1 x Robertson AP 9 fully integrated with ECDIS & Radars
- Electronic Chart: 1 x Norcontrol SeaMap 1021 integrated with autopilot, radar, and DGPS
- Gyro(s): 2 x C.Plath Navigat X MK1 integrated with DP system
- Depth Sounder: 1 x Skipper GDS 101
- DGPS: 1 x Shipmate GN 30 – 2 x Kongsberg DPS 100 – 1 x FURUNO GPS GP-37
- Speed Log: 1 x Consilium
- VHF DF: 1 x Taiyo TD-L1550 A
- Weather Fax: 1 x Furuno Fax-207
- Navtex: 1 x JRC NCR-330
- Rolls Royce Stability Autoload system

EXTERNAL COMMUNICATIONS EQUIPMENT

- GMDSS: Sailor, compliant for areas A1, A2, and A3
- 3 x VHF radios with a Furuno VHF radio
- Telex/Email: 2 x Sailor Sat "C" with Telex and Email

- Aeronautical Radio: 1 x Jotron TR-601
- Portable UHF: 5 x Motorola
- Portable VHF: 3 x Icon
- Aeronautical Radio: 1 x Jotron PSU-7001
- Cell Phone/Fax: 2 x Motorola JCGDL-1000,
1 x Portable Cell Phone
- Iridium: 1 x Bridge
- Fleet 77: 1 x Bridge
- V-SAT ship's business phone on bridge, in conference room, master's room, chief engineer's cabin
- VSAT phone for crew on bridge and in conference room
- KVH Broadband phone on bridge

INTERNAL COMMUNICATIONS EQUIPMENT

- Internal phone THEC PBX system throughout with phones in all cabins and areas with complete access to each other and all external communications.
- P.A. system covering all areas of the vessel both inside and outside including all sleeping areas if required.

ACCOMMODATION

- 11 x 1 berth cabins
- 7 x 2 berth cabins
- 2 x 4 berth cabins
- Total: 33 berths. All cabins with ensuite washrooms.
- Additional Spaces:
 - 1 x Ship's Office, complete with computer system (networked to Wheelhouse and Engine Control room) and photocopier.
 - 2 x Lounges
 - 1 x Messroom
 - 1 x Hospital, complete with separate berth, examination table, and all associated medical equipment required by SOLAS and CCG stand-by regulations.
 - Freezer 8 m³
 - Cooler 8 m³
 - Dry Stores 22 m³
- Satellite TV in all crew's cabins, in main lounge and in smoking lounge

MISCELLANEOUS

1. Design complies to latest rules and regulations from SOLAS 74, with amendments in force and IMO 469 (XII) *Guidelines For the Design and Construction of Offshore Supply Vessels*
2. Fitted with two passive roll reducing tanks below the main deck
3. ISM certificate issued from Lloyds and Transport Canada
4. Approved for the Carriage of Noxious liquids (DNV)
5. Approved for the Carriage of Dangerous Goods (DNV)
6. Fitted with 6 remote cameras in winch-house for anchor-handling/towing operations with monitors located forward and aft in wheelhouse
7. Fitted with 1 x 2000 W searchlight forward and 1 x 2000 W searchlight stbd. Aft one white light capable of being fitted with ultra-violet light, all remotely controlled from wheelhouse