



# KITTIWAKE

75' (22.86m) 2002 Washburn & Doughty  
East Greenwich Connecticut United States



## OVERVIEW

Manufacturer: *Washburn & Doughty*

Engines:	1 Caterpillar	Hull Material:	Steel
Engine Model:	3406E	Cruise Speed:	8 Knots
Engine HP:	450	Max Speed:	10 Knots
Beam:	20' 0"	Cabins/Heads:	3 / 4
Max Draft:	7' 10"	Fuel Type:	Diesel
Water:	1786 G (6760.74 L)	Fuel:	6550 G (24794.44 L)

**\$1,150,000**



## Data Sheet

Category: Other  
Subcategory: Cruisers  
Condition: Used  
Model Year: 2002  
Beam: 20' (6.10m)  
Max Draft: 7' 10" (2.39m)  
Min Draft: 7' 7" (2.31m)  
LOA: 75' 2" (22.91m)  
LWL: 67' 3" (20.50m)  
LOD: 72' (21.95m)  
Cabins: 3  
Sleeps: 8  
Heads: 4

Maximum Speed: 10 Knots  
Cruise Speed: 8 Knots  
Range NM: 5000  
Fuel Type: Diesel  
Hull Material: Steel  
Bridge Clearance: 39' 4"

Gross Tonnage: 102  
Displacement: 143 tonnes  
Fuel Tank: 6550 gal (24794.44 liters)  
Fresh Water: 1786 gal (6760.74 liters)  
Holding Tank: 250 gal (946.35 liters)  
Designer: Bruce Washburn  
Exterior Color: White

## Engines/Generators

### Engine 1

Caterpillar  
3406E  
Inboard  
450HP  
Fuel: Diesel  
Hours: 3300  
Year: 2002

## Summary/Description

KITTIWAKE is a very well-designed platform for exploring the world. She is large enough for a family that wants to cruise with all of today's requisite toys and tenders, yet small enough for an owner-operator.

KITTIWAKE was conceived by a career mariner and engineer who brought to the project much of what he learned while commanding ships worldwide. Construction was by Washburn & Doughty Associates in Maine, a shipyard recognized for building high quality, specialized workboats in steel and aluminum. Comfort at sea and ease of maintenance were of significant importance. KITTIWAKE might be best described as a small ship that can cruise in comfort and safety to any latitude and can be maintained by an owner operator.

KITTIWAKE is a very well-designed platform for exploring the world. She is large enough for a family that wants to cruise with all of today's requisite toys and tenders, yet small enough for an owner-operator. With her steel hull, 6,000-mile range and an HVAC system that will handle any climate, exploring all of the planet is possible. There is built-in redundancy for all major systems and a spares inventory that assures a high degree of independence. The boat deck will accommodate large tenders and other small craft.

As a true explorer yacht, she would be just as comfortable transiting the Northwest Passage as she would be in the South Pacific.

## OVERVIEW

KITTIWAKE was built by Washburn & Doughty Associates, a respected Maine shipyard that has been building commercial vessels of the highest quality for 40+ years. Her first and only owner is a master mariner who has spent decades commanding ships and instructing naval officers in navigation and bridge protocols. She was built in excess of ABS scantlings with the anticipation of operating in ice prone waters.

## CONSTRUCTION

Hull and main deck built using ASTM A36 steel (ABS Grade A).

Keel: 3/4"

Shell: 5/16"

Bulkheads: Subdivision & tanks: 1/4"

Main deck: 1/4"

Flats: 1/4"

Bulkhead stiffeners, shell frames and transverse frames spaced to a maximum of 20".

Deckhouse of Aluminum:

Main deck house front: 3/8"

Main deck house sides and back: 5/16"

Upper deck plate: 5/16"

Pilothouse and bulwarks: 1/4"

## ACCOMMODATIONS

The arrangement plan includes three staterooms on the lower deck, each with head and shower. Galley and main saloon occupy the main deck and the pilothouse with day head is on the upper deck. Headroom is in excess of 7 feet throughout. Finish is "Herreshoff style" with white panels and teak trim.

## VESSEL WALK-THROUGH

Aft entry to the deckhouse is through a watertight door off the aft deck. Stairs lead down to the engine room, laundry/utility room and lazarette with an inside door that opens into the main saloon. A circular dinette is to port with armchair seating to starboard. The galley is forward and amidships, open to the saloon. (See GALLEY). Large windows provide views from all vantages. Separate stairways lead down to the lower deck and up to the pilothouse. A second watertight door opens from the port side. All exterior doors feature "drip trays", recesses just inside the threshold that capture water and send it overboard.

The master stateroom is amidships, approximately below the galley area, both spaces close to the vessel's axis. It features a queen berth with drawers below, nightstands on either side. Outboard are cabinets and lockers suitable to long-term, live-aboard wardrobe needs. A deck hatch serves as an escape in addition to providing abundant daylight. Head compartment includes a Corian topped vanity and a generous shower stall.

Guest stateroom # 1 features a double berth with drawers below. Additional storage is available with bedside stand and hanging locker. Head compartment is finished with Corian and stainless. Shower includes teak seat and stainless grab bar.

Just forward of Guest stateroom # 1 is a multi-purpose space that currently serves as an office, with L-shaped settee, built-in corner desk and a small table. Alternate uses could include additional berth space, library, crew lounge or media room.

Guest stateroom # 2 is all the way forward on the lower deck and includes port and starboard single berths with mounting hardware for two additional pipe berths above. Storage is generous with hanging lockers, under-berth drawers and bin storage above the berths. Head compartment includes a large stall shower.

The heart of KITTIWAKE is the pilothouse. (The soul is the engine room.) Careful attention was paid to workspace ergonomics and sightlines. Forward facing windows are electrically heated. Watertight doors open onto port and starboard wing stations, each with throttle, shift, jog steering and thruster controls. Navigation equipment is angled to the helm position. The chart table will accommodate Admiralty sized charts and houses five, full-sized chart drawers. A settee serves as a watch berth and head with toilet is situated aft. It is worth noting that sound levels throughout the vessel are remarkable low while underway: Decibels in the pilothouse while underway under main engine are an astonishing 58 Db.

The aft house arrangement with raked windows is often considered the Gold Standard of design for true expedition yachts.

## GALLEY

The galley is configured in an efficient V shape favored by chefs. Equipment includes:

- Viking Dual-Fuel range with LPG stove top with sea rails and 230V oven
- Sharp 1200W microwave
- Double stainless sinks with Groehe fixtures and Sears In-Sinkerator disposal.
- Viking rangehood
- Amana 22.5 cu.ft. fridge / freezer combination unit
- 30 sq.ft. of counter space with Corian surface.
- Abundant storage via cabinets
- (Additional food storage in Laundry room
- Woods 10 cu.ft. chest freezer
- Amana 21.5 cu.ft. reefer/freezer

## UTILITY / LAUNDRY ROOM

- Workbench with vise and wall-mounted array of frequently used hand tools, wrenches, sockets, etc.
- Commercial tub-sink with hot and cold taps.
- Laundry folding table.
- Chest freezer plus full sized fridge/freezer.
- Kenmore washer
- Kenmore dryer
- Whiteboard with maintenance dates of all major components. (Of note, the aft deck watertight door is sized to allow easy removal of laundry and refer / freezer components).

## ENGINE ROOM

Full headroom , diamond plate soles with white panels, bulkheads and bilges. Full, walk-around, stand-up service access to all major components.

Engine room bulkheads and overhead sheaved with 3" lead backed, Soundown insulation.

## PROPULSION

### Single Caterpillar 3406E, 450 HP @ 1800 RPM "A" rated (electronic fuel injection, keel cooled)

- 3300 hours (12/2019)
- Dry stack exhaust with keel cooler
- Marine gear: Twin Disk, #5114, 4.17: 1 reduction w/ 5 blade 48"0 x 45"P propeller
- "Get Home" system utilizes Cummins 35 KW #1 generator hydraulically coupled to the propeller shaft to provide up to 5 knot speed
- Main engine is soft mounted to isolate any vibration and structural borne noise
- Connection to the 4" dia. propeller shaft is via an Aqua-drive with hull mounted thrust bearing, eliminating eccentric torque on the Twin Disk gear
- Powerline 160 amp, 24 VDC alternator
- Block Heater

## FUEL SYSTEM

Capacity - 6550 gallons in six tanks.

Tanks fitted with sight glasses with scales behind, tanks and sight glasses fitted with shut-offs. A unique 70 gallon containment system mounted below the fill manifold incorporates tank vents and allows high-speed fill up to 100 gpm, with no risk of spillage.

Dual Racors at engine, generators and furnace.

## NAVIGATION / COMMUNICATION

- RADAR: Furuno, FR-8111, X Band 10 KW , 12" Monochrome display, 72 m w/ 6.5' Scanner Auto Plotter (10 ARPA targets). Stabilized with input from Satellite Compass and position from 1st DGPS. Outputs selected ARPA targets to Transas ECDIS.
- SATELLITE COMPASS: Furuno, SC-120, delivers True Hdg. within +/- 0.003°. outputs to Plath Gyro Strg. Repeater, Radar, Transas Chart Plotter, AIS Transceiver, Robertson Auto Pilot #AP-45.
- 1st DGPS: Northstar, 951X, Inputs to Radar, 1st VHF DSC Radio, Transas ECDIS Plotter. Unit incorporates mini Navionics Plotter.
- 2nd GPS: Furuno, SC-120, outputs True Hdg to Transas ECDIS, AIS Transceiver, Gyro Repeater.
- AIS TRANSCEIVER: JRC, JHS-182, type "A", receives True Hdg. & position input from SC-120 Satellite Compass.

Outputs to Transas ECDIS.

- DEPTH SOUNDER: Furuno, FCV-582L, Colour display, depths to better than 500 metres. Outputs depth, S1W & water temperature to Transas ECDIS.
- NAVTEX: Furuno, NX-300, Digital display of messages, input from 1st DGPS, outputs to Transas ECDIS.
- AUTO PILOT: Robertson AP-45, receives input magnetic Hdg from Simrad Rate Fluxgate Compass RC-37, or true Hdg from SC-120 Satellite Compass.
- SEXTANT: Davis, Mark 25, Beam Converger micrometer Sextant, w/3 power scope.
- STEERING COMPASS: Ritchie, 7-1/2" USN, Mk-1 Standard (the best made), recent Adjustment rendered deviations not exceeding  $\frac{3}{4}^{\circ}$
- FLUXGATE COMPASS: Simrad, RC-37 Rate Fluxgate, inputs to Auto Pilot & provides digital magnetic Hdgs. Recent Adjustment rendered deviations not exceeding 003 degrees.
- SSB RADIO: Icom, IC-710, All frequencies to 30 Mhz. including Ham.

Antenna Tuner: Icom AT - 130

- #1 VHF radio: Icom, IC-127
- #2 VHF RADIO: Icom, IC M-502, Digital Selective Call capable, input from # 1st DGPS.
- PORTABLE VHF RADIOS: 2 - Icom, IC-M1V & West Marine VHF #150.
- COMPUTER: Gateway Laptop w/14" display, Displays Weatherfax with input from the SSB radio. Holds software for Tides & Currents E and W coasts of N and S America, also training software for COLREGS, Seamanship & Navigation & many others.
- COMPUTER: Dell w/24" Display and connected to a HP computer presently dedicated to Transas ECDIS Chart Plotter. (A buyer would need to install an ECS of his own.)
- ANEMOMETER: Davis, Weather Wizard III Relative wind speed & direction.
- BAROGRAPH: Vetus, Meteo Liner, electronic barograph (very accurate)
- INTERNAL COMMUNICATIONS: A Newmar 10 sound powered telephone system with 7 stations connects all cabins, Bridge, Salon & store Rm/Engine Rm. An Emergency Rotating Blue Call light can be activated from the Bridge to the Engine Rm.

## STEERING SYSTEM

- Jastram, Electro-hydraulic. Selectable from:
  - 1) Hand Hydraulic (emergency backup)
  - 2) Non-Follow up (NFU), "Jog Lever";
  - 3) Full Follow up (FFU), by hand steering w/36" Wheel
  - 4) Auto Pilot control.
- System is supported by 2 hydraulic pumps:
  - a) Rexroth pump driven off the Main Engine
  - b) back up 120 VAC 2 HP ABT pump is in the Lazarette.
- ROI & RAI Displays in Pilot House
- RAI Displays at bridge wing stations provide Rudder Ordered (ROI) & Rudder Angle (RAI).
- Rudder Angle Hard Over (45° Port) to Hard Over (45° Stb.) is - 8 seconds.

## ELECTRICAL SYSTEMS

- 17 KW Onan, single phase, 120/240 VAC Generator w/ wet muffler and transom discharge; As of 9/2020, engine hours - 4200.
- 35 KW Onan, single phase, 120/240 VAC Generator, dry stack muffler, As of 7/2018. Engine hours - 450.
- Main 120/240 Distribution Panel: 50 Amp 240 VAC from Shore; 100 Amp 240 VAC from 17KW Gen.; 200 Amp 240 VAC from 35KW generator.
- Main 24 VDC Distribution Panel: Distributes current from House Bank - 900 Amp Hour, 24 VDC battery bank (16 Trojan 6 V deep cycle batteries)



- Maxum 4KW Inverter/Charger provides power to all 120 VAC outlets. (Depending on load will provide 120VAC for about 18 hrs, providing lights, power to two refrigerators, one 10 cu.ft. freezer and cabin heating before a generator is required to provide continuing VAC and recharge batteries).
- Battery recharging is generally accomplished within 2 operating hours on #2 Generator twice daily. Main Engine and both generators have dedicated start batteries.
- Navigation Computers are powered off VAC stabilized feed via the True Sine Wave Inverter or off the AC Distribution Panel.
- All Navigation instruments are powered via a 24VDC dedicated battery bank with its own Charles 40 amp VDC Ferro-resonant battery charger, taking charging current from either a running generator or the Inverter/Charger.
- 200 amp Pathmaker unit monitors and maintains charge in house batteries, main engine and #1 generator battery banks and can parallel the house bank to either the main engine starting bank or #1 generator starting bank.
- Xantrex Link 10 battery monitoring system monitors all 3 - 24 V battery banks.
- Maxum 4 KW Inverter connects a complex battery monitoring system to the house battery bank. LaMarche 24 V, 60 amp (50 or 60 hz) Ferro-resonant battery charger backs up the inverter/charger and accepts 50hz 240 VAC input.
- Newmar RM-2033 12 VDC, Multi-Stage charger, charges the 17 KW start battery and the pilothouse radio battery.
- The Inverter output in charge mode delivers 105 amps (24 VDC) Multi-Stage, into the house bank and/or via the Pathmaker to either of the Main Engine or #1 Generator start bank.
- Main Engine Powerline Alternator output is 160 amps connected through a Multistage Regulator via the Pathmaker to any/all 3 - 24 VDC banks.
- 35 KW Gen. alternator outputs 45 amps.
- Multiple 120 VAC electrical outlets (Inverter fed) throughout vessel), including watertight electrical outlets are on foredeck, fantail and on the 0-1 Deck.
- Charles Ind. 50 amp Iso Boost transformer/isolator.
- Two 50' Marinco 50 amp Shore Power cables
- All interior lights are LED's.
- Emergency lighting: 24V independent lighting system to all common spaces.

## BATTERIES

### Wet Cell

- House Bank = 16 Trojan #105 Deep Cycle, 6 VDC producing 24 VDC @ 900 AH
- Main Eng. Start 2 - 80, Deep Cycle (24 VDC)
- 35 KW Generator 2 - Group #31 paralleled (24 VDC)
- 17 KW Generator 1 -Group #31 (12 VDC)
- Navigation Instruments 2-Group 24 Trojan Deep Cycle paralleled (24 VDC)
- Radio Equipment 1 -Group #31 Deep Cycle (12 VDC).

## BILGE PUMPS

- Six 24 VDC Rule 2000 GPH pumps, one in each watertight compartment and two in the engine room, all fitted with float switches. Control and alarm indication are on the Bridge.
- Single 240 VAC, 3 hp. 140 GPM Flomax self-priming bilge pump w/ suction and discharge connected to a bilge manifold providing suction to all watertight compartments including 2 suction pick-ups in the engine room.

## DECK EQUIPMENT

Ground tackle and mooring gear:

- One 242 lb Rocna anchor w/ 490' of 5/8" Open Link High Tensile galvanized chain
- Spare Rode: 400' of 1" diameter, 3 Strand Nylon Line w/10' of 5/8" high tensile open- link galvanized chain
- One FX-125 Fortress Anchor (alternate/spare)
- One 150 lb Max Anchor (alternate/spare).
- Six 1" diameter, 3 Strand Nylon Mooring Lines – 100' each
- Six ¾" diameter, 3 Strand Nylon Mooring Lines – 100' each
- Two 3 Strand Hi-Tensile, Polypropylene Spring Lines (low stretch) – 90' each
- Large assortment of shorter lengths of smaller lines & "Handy Billy" tackle.
- One 2' diameter Anchor Ball,
- Anchor marker floats & misc. deck hardware.
- Six 30" x 12" Taylor, Inflated Fenders;
- Six Assorted Smaller Fenders;
- Four 5' long, 2" x 8" padded Fender Boards (for Pilings)
- Johnson Aqua Jet, high pressure washdown pump (in ER), delivering 5 GPM at 73 psi to the foredeck for anchor and chain and to the fantail for washdown,

#### Deck machinery:

- One ESI Windlass / Capstan, 7HP, 2 directional, variable speed w/2 remotes
- One ESI Stern Capstan 3HP, single direction for tensioning stern lines.

#### Floodlighting:

- Two Mariteams 500W – Foremast,
- Two Mariteams 500W - Pilot House top, port & starboard.
- One Mariteam 500W, Aft Embarkation.

## HYDRAULIC SYSTEM

ABT 3200 hydraulic pump: 35 HP w/ PTO off #1 generator drives variable speed & reversible hydraulic motor easily connects to the prop shaft and will deliver up to 5 knots depending on sea state. Bow thruster, jog steering and engine controls available at bridge console and both wing stations. Hydraulic system also powers a 35 HP ABT Bow Thruster driving twin counter rotating 16" propellers

## FRESH WATER SYSTEM

1786 gallons in two tanks

AC and DC redundancy in pressure pumps.

- Groco Paragon 12 V fresh water pump

- Well-x-troll 120 VAC 1/2 pump (delivers up to 50 psi)

40 gal . A.O. Smith hot water tank heated via 240 VAC

Pilothouse roof is fitted with scuppers, drain and vavles to allow delivery of rainwater to main tanks

600 gpd Sea Recovery watermaker, inoperative (ie. "pickled")

## BLACK WATER SYSTEM

- Four heads fitted with Sealand Vacuflush Toilets.
- 250 gal. polyethylene holding tank.
- Tank discharge via Sealand Diaphragm pump overboard or to a 1-1/2" deck fitting.
- Tank level monitor displays in the pilot house.

## GREY WATER SYSTEMS



- Three lower deck head sinks and showers drain into a 20 gal. holding tank fitted with a float switch for discharge overboard by either of two Jabsco pumps.
- Black and Gray water systems drains, valves and discharge piping is all schedule 80 PVC pipe to prevent any odor.
- All three lower deck head sinks and showers fitted with Grohe fixtures.
- All four heads have deck drains allowing washdowns and exhaust fan vents.

## **FIRE SUPPRESSION**

Engine room / Utility room:

- Two 100 lb Fixed CO2 cylinders plumbed to engine room w/20 sec alarm delay,
- 25' self coiling hose w/nozzle, connected to FW pressure tank.
- Located in engine room: One 15 lb CO2 cylinder and One 10 lb dry-chem extinguisher.
- Suitable 5 and 10 lb. dry-chem extinguishers in key locations throughout the ship.
- On Deck: ¾" FW Hose connection forward and aft:

## **SAFETY EQUIPMENT**

- Guest #298 12VDC Remote controlled Searchlight;
- Kahlenberg Air Whistle;
- 8 - Type #1 Adult Lifejackets;
- 2 - Type #1 Child Lifejackets;
- 4- Stearns Inflatable Lifevests;
- 4- Type #2 Adult Lifejackets;
- 2- Type #2 Child Lifejackets.
- 1 - Zodiac 8 Person Ocean Rated Liferaft;
- 1 - 30" Lifering w/Waterlight (0 -1 Dk);
- 1 - 30" Lifering (fantail);
- 1 -ACR Strobe Lifering Light (0 - 1 Dk);
- 1 - Category #1 ACR Globalfix EPIRB;
- 1 - 11' 2" Avon RIB w/9.9 hp Mercury outboard and 3 gallon gas tank.
- Miscellaneous Flares, Orange Smoke Signals and other current signals.

## **HEATING SYSTEM**

- Slant Fin XL- SOP 280,000 BTU diesel fired furnace w/Beckett Burner.
- Entire Slant Fin heating system operates off 120 VAC via the Inverter distribution panel. System heats water to diffusers via 4 thermostatically regulated zones to all living spaces, plus engine room, lazarette and utility/laundry room.
- Master Stateroom - 1 Bulkhead Heater,
- Guest Stateroom -1 Bulkhead Heater,
- Fwd Cabin -1 Kicker Heater,
- Office - 1 Kicker Heater,
- Salon & Galley - 4 Kicker Heaters,
- Pilot House - 2 Bulkhead Heaters,
- Eng. Rm. -2 Dayton 13050 BTU Heaters,
- Utility Rm. -1 Dayton 13050 BTU Heater,
- Lazarette - 1 Dayton 13050 BTU Heater.

## **AIR CONDITIONING**



Six Marine Air units:

- Two 16,000 BTU in Salon/Galley,
- Two 10,000 BTU in Pilot House,
- One 10,000 BTU in Master stateroom
- One 16,000 BTU supplying the two guest staterooms.
- Insulation: In accommodation area, 4" fiberglass between hull shell and sheathing,
- 9" fiberglass under exterior decks and pilot house overhead.
- Lazarette and utility room sprayed with 40 mil coat of Delta T (R-19 rated).
- Overhead paneling are covered with foam backed Majilite for additional insulation.

## SPARES

Elaborate inventory, available upon request.

## EXCLUSIONS

Personal laptop, pelorus, nameboard, and other personal effects.

## BROKERS COMMENTS

KITTIWAKE is a rare offering, a US built, steel / aluminum expedition vessel with 6,000 mile range. She has very little in common with single-engine fiberglass yachts that purport to be world cruisers. Her righting moment with 2/3 load is superior that of most white yachts (tables available). Full redundancy has been engineered into virtually every system aboard from navigation and lighting to plumbing and propulsion. Her maintenance and record keeping has been scrupulous. It is often claimed in the promotion of an expedition vessel that she "could depart tomorrow..." and it is often an exaggeration. In the case of KITTIWAKE, it is unquestionable.

KITTIWAKE must be seen to be appreciated.

## OWNERS COMMENTS

After a lifetime at sea as a professional shipmaster I wanted to acquire a passage making trawler type vessel to explore parts of the world cargo ships and tankers wouldn't take me. I looked first at Nordhavens, but as handsome as they were I found too much lacking for my objectives and goals. Hence I designed KITTIWAKE and had her built at an outstanding builder of sturdy commercial vessels in Maine. Listed below are some of the features I felt were essential.

1) Able to be operated without paid crew, a steaming range in excess of 6000 miles. She achieves this running her Caterpillar "A" rated, 450 hp engine at 1300 RPM (38% load) delivering 8.0 knots (STW) at 7.2 gph with 10%+ reserve fuel. Six, narrow F.O. tanks totaling 6500 gallons (US) fuel are installed amidships against the vessels outer shell plate, placing its weight outboard to give her a gentle rolling period and reduce free surface impact on stability.

2) Bunkering is achieved safely and rapidly at up to 100 gpm with no risk of spill by one person on deck at the fill manifold. The two smallest tanks are dedicated Day Tanks. These are replenished from the 4 larger tanks via a 6 gpm transfer/filtering system. Tanks may be gauged to +/- 1 gallon.

3) Vessel was constructed to heavier standards than normal for her size. The hull is 5/16" steel plate and deck houses are aluminum. Extreme stability, comfortable, long rolling period and very low engine noise level were principal features in her design. Divided into 5 watertight compartments, she is a superb sea boat, very maneuverable with fast oversize rudder and with maneuvering stations in the pilothouse and both bridge wings.

4) Priority was given to her engine room and lazarette. Ease of access to all equipment and redundancy of operating systems. A 17 KW generator serves 90% of her electric needs when at anchor and needs to operate for no more than 4 hours a day, a large 24 DCV battery bank and 4 KW inverter providing the balance. A 35 KW generator can meet rare, extreme electric loads but also drives a large hydraulic system for powering a powerful bow thruster and a "come home" drive in the event of main engine failure. An oil fired circulating hot water heating system via 4 zones provides ample heat throughout the vessel. The lazarette, a watertight compartment, contains a heavy duty steering system with three backups. The space also serves as storage for damage control supplies and thoroughly indexed containers of spares. Throughout both spaces provide well lighted, easy access.

5) The bridge is designed for serious navigation, comprehensively outfitted, well heated or AC cooled, heated windows, 5 drawer chart table, a berth and head.

6) Living spaces consist of a large salon and large well equipped galley, well lit. Below deck three cabins, master and guest with queen berths and forward cabin with two single berths and two roll out pipe berths. All cabins have their own head and showers. Vessel provides a large FW supply in two tanks (1786 g), a 250 gallon black water tank with 2 Sealand "M" type vacuum pumps, Sealand discharge pump and a 20 g gray water tank w/2 discharge pumps. AC and heat is delivered to all living spaces. Extensive storage and closets provide stocking for extended passages.

7) A utility room adjacent to the engine room has a large work bench, bulkhead mounted tools, a Sears tool chest, a comprehensive tool supply. In addition to the 22 cu.ft. reefer/freezer in the galley is a 21 cu.ft. reefer/freezer and a 10 cu.ft. freezer in the space. All appliances, heat and lighting can operate off the 4 KW inverter, a generator being required only 2 hours in the morning and 2 hours in the evening for battery charging.

8) Apart from the generators and large "house bank" of batteries, each engine and all navigation gear has its own starting and service battery bank. All batteries are charged via the inverter and two ferro-resonant battery chargers when outside source of 240 VAC is available. Underway all batteries are charged via the 24VDC 160 amp alternator.

KITTIWAKE has met all of my objectives and I have had the privilege of being her steward since her launching.



















































DATE	TIME	ZONE						
4/16/18	1200	+4						
END USE	CONSUMABLES	SEA Suction	OPEN	CLOSED	SEA Suction	OPEN	CLOSED	
MAIN D/S 3122.1	FUEL OIL 3210	A/C CONDENSER SUPPLY	✓		FORFEAR	✓		
#1 OIL 411.6	LUBE OIL 62	WASHDOWN	✓		A/C CONDENSER FILTER	✓		
#2 OIL 4012.1	FRESH WATER 1786	A/C OIL COOLANT	✓		GREY & BLACK WATER TANK COMPARTMENT	✓		
LAST SERVICED	DATE	A/C OIL COOLANT	✓		ENGINE ROOM	✓		
CYCLE FLOW IN THE	6/26/17	BILGE PUMP SEA Suction		✓	LAZARETTE	✓		
A/C GEN ZINC ANODE	5/21/18	A/C BLOWDOWN		✓	BATTERY STATUS			
A/C T. ZINC ANODE	5/21/18	R/O SUPPLY		✓	HOUSE BATTERIES	NEW	3/6/12	
A/C T. FW FILTER	5/25/15	SEA CHIST WINT	✓		INTE BATTERIES	"	4/28/13	
FW AREA FILTER	1/06/16	SEA CHIST COOLANT			INTE BATTERIES	"	11/08/14	
FW FILTER	5/07/15	SEA CHIST	5/27/09	NEW	#1 GEN BATTERIES	"	3/27/07	
A/C COMPRESSOR LUBE	7/30/10	A/C T. COOLANT	5/27/09	"	A/C GEN BATTERIES	"	2/20/15	
A/C CONDENSER FILTER	4/25/12	A/C GEN	5/27/09	"	FW TANK BATTERY		5/02/17	
R/O SYSTEM	3/31/07	A/C GEN	5/27/09	"	EQUALIZE BATTERIES		6/14/16	





































