

Jupiter General Information and Equipment and Systems Question/Answers, August 2020 Update,

This additional information of Jupiter's attributes and equipment/systems explanations is provided for information only to further understand Jupiter's systems and maintenance. Please understand is not to be construed in any form as a binding document offering vessel performance or operational status guarantee or warranty.

HULL:

1. Construction: ABS Certificate, A1 Yachting Service.
2. Draft: Documents showing draft vary from 3.40m (11.05') to 3.80 m (12.35'). Confirmed during current yard period 2019/2020 NFSY) as 140" keel to bottom paint/topside paint line. Vessel as currently loaded floats with several (4" to 6") inches of bottom paint exposed.
3. Air Draft: Approximately 110'
4. Keel Attachment: Separate Cast Lead Keel with External Accessed ASI 316 Keel Bolts. Allows access without removing main engine.
5. Hull Plate thickness varies between 10mm and 6mm: last survey gauging (2014) showed no plate degradation and 2020 out of water survey during topside paint and bottom paint removal, epoxy barrier coat restoration project showed no degradation
6. Insurance claim 2019: Restored starboard side paint and fairing damage to pre damage condition and repainted both hull sides. Note that this "Dorian" hurricane damage occurred while berthed at Charleston Harbor Resort and Marina. Damage resulted from vessel lying to concrete dock with tropical storm winds abeam when windward dock section failed and allowed Jupiter (and other vessels) to lay directly up against dock. Fenders failed and caused damage to paint and fairing on starboard side. Note that several vessels on same dock were holed and took on water with significant damage.
Charleston based High and Dry Boatworks was contracted to perform repairs with boat hauled out of water at North Florida Shipyards in

Jacksonville, FL. High and Dry Boatworks is certified in application of Awlgrip and International paint products.

- Inspection of plating and structure shows no structural damage.
 - Re-faired and repainted entire hull side including red boot top and gold shear stripes to original color.
 - Also replaced damaged mooring lines (all new 2019) and replaced damaged mooring inflatable fenders and covers (all new 2019).
 - Replace Masthead B&G Windspeed sensor; unit ordered.
 - Restore damaged lifeline stanchion starboard side gates; completed.
 - Hull sides restored with AwlGrip system certified products and certified application personnel. Color to match original blue shade white.
7. Hull Bottom; during 2019/2020 NFSY yard period and hull-side paint restoration, bottom was water/bead blasted down to original barrier coat to remove heavy accumulation of many bottom paint layers. Restoration included new Interlux epoxy barrier coats (3) and antifouling paint (3 coats). International Paint #762 epoxy barrier coat and #5640 Antifouling in black color was used.
 8. Bottom bead blasting revealed that hull plating, welds and keel hull joint in excellent condition (2020) with no evidence of corrosion. Shaft and propeller and rudder and rudderpost showed no evidence of corrosion.
 9. Shaft and hull bottom zincs were restored with new units; old zincs showed little deterioration/wasting since last haulout and bottom paint (Fairhaven spring 2018) which indicates no unusual stray currents or electrical problems.

SAFETY AND EMERGENCY EQUIPMENT:

JUPITER was purchased as red flagged, Isle of Mann, MCA Coded Large Yacht and was reflagged to Jamaica initially as a Large Yacht vessel (greater than 24 meter) in private/limited charter service. Jamaican flag requirements are patterned after and mirror the “red flag” states MCA criteria and requirements.

1. Vessel has been equipped for private and charter service since our ownership with all required equipment and fire safety plan has been

onboard and compliance verified with annual survey. In late 2018 certification was changed to Private Vessel since has been actively for sale and no longer active in charter service.

2. Vessel calculations were re-performed by IYB and revealed that Jupiter could be classified as a "Small Yacht" (under 24 meter), which reduces certain safety equipment requirements.
3. Life Rafts (2) are new SOLAS A in late 2018 and were inspected in late 2019 therefore are current. Vessel has had equipment to be certified for MCA "Category 0 Unlimited" cruising zones. Equipment such as survival suits and ditch kit, MOB, life jackets, fire fighting equipment and emergency pumps are onboard.

RIGGING and SAILS:

1. All Main and mizzen mast standing wire rigging and components were replaced with new rod, fittings, tip cups, turnbuckles, toggles and pins. Headstay rod re-headed. All work performed 2018 by Annapolis Rigging and all fittings custom US made by Hayn Enterprises.
2. All sheaves for main and mizzen masts and booms replaced with custom fabricated replacements 2018.
3. Reckmann hydraulic genoa and jib furlers sent to factory (Germany) and overhauled 2018.
4. Navtech Hydraulic control cylinders inspected and main mast backstay cylinders rebuilt 2018. All NavTech functions operable such as vang, genoa tension, outhaul etc.
5. Running rigging halyards and reefing lines replaced with Spectra core line 2018.
6. Main and mizzen masts and booms repainted with Quantum 99 in 2018,
7. Main and mizzen masts antenna wiring upgraded to low loss LM600 2018.
8. Main and mizzen sail reefing is reliable 3 point slab reefing with spectra core lines. Deck and mast layout utilizes powered winches for reefing.
9. Main and mizzen sails are reliable stack pack design, main stack is new 2016 and mizzen is new 2018.
10. Sails are 2011 vintage construction in heavily reinforced conventional dacron by Incidence of Antibes, France.
11. All sails were assessed by Quantum Sails Annapolis; while rig was being worked all sails were re-stitched and restored 2018 by Quantum Annapolis.

Since vessel has been essentially out of service since 2018, the sails have seen approximately less than 2000 sea miles since re-stitching and should be serviceable. A quotation for new sails obtained from Rolly Tasker in premium conventional Dacron based on actual sail plan is available if desired.

12. Cruising spinnaker with ATN sock and custom Jupiter logo was also built in 2018 by Quantum Annapolis.
13. Winches are Lewmar. Dual Lewmar Commander 400 24 volt DC hydraulic power packs serve genoa and jib furlers and the hydraulic winches.
 - a. Hydraulic powered winches are;
 - i. Mainmast Halyards and Reefing
 - ii. Genoa Sheets
 - iii. Jib Sheets
 - iv. Main Sheet
 - v. Running backstays
 - vi. 2 Misc powered winches used for Spinnaker Sheets
14. Cockpit Bimini/Dodger with side curtains canvas and glass re-stitched in 2020 and serviceable condition.
15. Canvas sun shades from main mast to stern are in excellent condition with little use.

MACHINERY:

1. Main Engine: Mercedes OM423, V10 industrial, normally aspirated and nonelectronic controls. Marinization by NANNI France/Italy. Approximately 6050 hours. Recently serviced (at 5850 hours) in fall of 2018 by Yacht Maintenance Company, Cambridge, Maryland, chosen for their mechanics knowledge and experience with these Mercedes OM engines.
 - a. Cooler bundle/core cleaned, tested and restored 2018.
 - b. Fuel injection rail and pump removed rebuilt and restored with all injector serviced.
 - c. Closed circuit cooling water pump impellers and thermostats replaced with new units.
 - d. Raw water pump impeller replaced.
 - e. Main Engine Exhaust drain back box drain pump replaced 2020.
2. Propeller and gear: 4 blade hydraulically variable pitch Hundestat Propeller

- a. Propeller pitch can be adjusted between (0% to 100%) while underway to obtain optimal position for a multitudes of sailing and maneuvering conditions. Typically the propellor pitch is adjusted versus the engine rpm to obtain an optimal exhaust gas temperature for highly efficient motoring or even motor-sailing. The propeller is also adjustable to provide zero propellor drag during sailing. The propeller can be quickly adjusted for docking maneuvers that require minimal thrust for maximum control while maximum thrust maybe desired for powering into a heavy seaway.
 - b. A recent 220nm passage motoring at less than 1000 rpm consumed less than 400 liters of fuel with the 13kW generator running half time, so about 2 gal/nm at 9.75 knots. Jupiter has crossed the Atlantic mostly under power at speed of 9 to 10 knots from Gibraltar to Antigua (approx 3800 nm) using generator regularly for water making and battery charging. She arrived having consumed less than $\frac{3}{4}$ of fuel capacity.
3. Generator 1 (Starboard): 13EFOZD, 13kW, 230 vAC 50 Hertz, 24 vDC start/charging, isolated ground kit installed.
 - a. Installed new 2018.
 - b. Hours: approx. 980 hours.
 - c. Recently serviced with oil change, oil and fuel filter and new raw water pump and impeller Fall 2019.
 - d. Full Kohler sound enclosure
4. Generator 2 (Port): 27EFOZD, 27kW, 230 vAC 50 Hertz, 24 vDC start/charging, isolated ground kit installed.
 - a. Factory New Yanmar diesel engine installed 2018.
 - b. Hours: less than 800 hours on restored generator engine and systems.
 - c. Recently serviced with new raw water heat exchanger and hoses, raw water pump, 24 vDC alternator, control board and relays to fully restore genset in 2019.
 - d. Full Kohler sound enclosure
5. Water making Equipment
 - a. 2 Idromar MC2J water making plants (membranes currently inoperable due to lack of use).

- b. Each unit produces 130 liters (34 gallons) per hour, or 3100 liters (820 gallons) per day. Both water makers can be run simultaneously for a production rate of about 65 to 70 gallons per hour.
6. Engine Room and Machinery Access
- a. Engine Room and the Pump/Electrical Room is well light and clean.
 - b. Pump and Electrical room is separate from engine room and has standing headroom with workbench. Most pumps/fans and electrical systems are operated from Pump Room.
 - c. Engine room provides good access to all aspects of main engine and the service sides of both generators as well as the water makers and filters.
7. Refrigeration:
- a. Three 24 vDC SeaFrost BDXPX air/water cooled holding plate units are convertible between freezer or refrigeration. Boxes are well insulated and large sized. All components installed new in 2016.
 - b. One 24 vDC SeaFrost BDXP water cooled holding plate unit serves the drink/wine cooler.
 - c. All SeaFrost units are controlled with SeaFrost electronic thermostats.
 - d. SeaFrost water cooled option sealed March pump for 3 galley units replaced in 2020 after continuous use since 2016. Units will run adequately in air cool mode as well.
 - e. Forepeak SeaFrost unit has independent continuous duty Jabsco circulation pump, new in 2020.
 - f. One 230 vAC Inverter bus powered Deep Freezer (2017) in Lazarette.
 - g. One 230 vAC Inverter bus powered Raritan Icemaker (2016).
8. Air Conditioning and Heat Fan Coil Units
- a. Circulating water system provides heat and chilled water to 11 230vac fan coil units, with 3 speed fan switch and mechanical thermostats all functioning. Master cabin has a digital 10 speed electronically controlled fan units (2),
 - b. 3 Condaria 30,00 BTU/Hr compressor units, (90,000 BTU/hr total), reverse cycle for heating and cooling. Compressor #3 out of service since original purchase due to previous ownership use of a EU dictated replacement refrigerant which has since proven to be generically detrimental to older compressors units. The 2

compressors units have proven to provide adequate heating/cooling, last refrigerant recharge 2018.

- c. Replacement for #3 compressor located and available for installation when full complement of 3 compressors desired.
 - d. Condaria is now a unit of and serviced by Dometic of Florida,
 - e. 230 vac Raw water and Chilled Water circulating water pumps replaced with new pump and motor units 2019.
 - f. Raw water AC heat exchangers replaced with SeaFrost custom design, flawless raw water operation since replacement,
9. Hydraulics
- a. Dual Lewmar Commander 400 24 volt DC hydraulic power packs serve 2 genoa/jib furlers and 9 hydraulic winches.
10. Anchor Windlasses
- a. (2) LOFRANS "ERCOLE" model vertical windlasses, 24 vDC, 3500 watt motors with handheld and deck foot switches.
11. Bow Thruster
- a. Hydraulic pump belt driven off main engine front PTO. Flexible coupling to separate shaft with electro-clutch belt drives pump. Shaft also drives one 200 Amp 24 vDC alternator (alternator replaced 2016).
 - b. Entire assembly shaft, bearings, clutch and belts replaced 2106.
12. Blackwater system upgrades;
- a. Replaced all 4 guest cabin heads with Raritan Marine Elegance electric macerator heads,
 - b. Replaced all 2 crew cabin heads with Raritan Marine electric macerator heads,
 - c. Replaced all existing blackwater hose with new Odor Free hose throughout,
 - d. Removed original build small guest heads blackwater tank and installed new polyethylene holding tanks doubling capacity (2016).
 - e. Installed new blackwater tank level indication system with high level alarm to main annunciation panel in Pilothouse,
 - f. Replaced blackwater pump with Jabsco macerating pump 2020,
 - g. Procured (new unit) heavy duty Gianneschi rotary screw blackwater pump as spare. Pump is currently an uninstalled spare for either aft or forward blackwater pumps and unit is identical to currently installed forward blackwater pump.

13. Pump and Fan list reflect many recent improvements and replacements program:

- a. Anchor Chain Wash (new 2019)
- b. Forepeak Refrigeration SeaFrost circulation Pump (2019)
- c. 24VDC Forepeak Bilge Pump, Jabsco pump and level switch
- d. Forward Blackwater pump is 24 VDC Gianneschi rotary screw pump
- e. 24VDC Main Engine Bilge Pump, Jabsco pump and level switch
- f. Main engine exhaust drain box pump (new 2020), 24VDC Jabsco pump and level switch
- g. Oil Change/Transfer pump with manifold to service main engine, both gensets and transmission oil changes, 24VDC Marco gear drive lube oil pump (new 2019),
- h. Air Conditioning Raw Water pump, 230VAC Gianneschi (2019)
- i. Air Conditioning Chilled Water Circulation pump, 230VAC Gianneschi (2019)
- j. Genset Kohler raw water pumps, new impellers (2020)
- k. Main Engine raw water pump, new impeller (2018)
- l. Watermakers (2) Hi Pressure pump, new motor 2018
- m. Watermakers (2) low Pressure pump, new 2018
- n. Galley Refrigeration SeaFrost circulation Pump, March Magnetic drive 24VDC (2020)
- o. 230VAC Freshwater pump, Gianneschi pump rebuild kit 2016, new contactor 2020
- p. 24vdc Freshwater pump, Gianneschi pump, rebuild kit 2016, new pressure switch 2017, new accumulators (2) 2018
- q. 24vdc Aft Gray water pump, Gianneschi pump
- r. 24vdc Forward Gray water, Gianneschi pump
- s. 24vdc Emergency Fire/Bilge pump, factory rebuild 2019
- t. 230vac Emergency Fire/Bilge pump, factory rebuild 2019
- u. 24vdc Fuel Oil transfer pump to fill fuel day tank serving main engine and both gensets, Gianneschi Oil pump
- v. Aft Blackwater pump, 2020
- w. 24vdc Lazzarette Bilge pump, Jabsco
- x. Forward Variable Speed Fan, 3 phase inverter backed, new controllers 2017,

- y. Engine Room Variable Speed Fan, 3 phase inverter backed, new controllers 2017,
- 14. 230vac air compressor in lazarette primarily for engine start exhaust isolation air operated valves actuation as well as for mizzenmast mast mounted horn. Air lines run from lazarette to fore peak for inflation services in lazarette and forepeak (dinghy and fenders etc). Compressor new 2017.
- 15. 230vac Bauer Dive Air Compressor; not used often but recently tested as functional as of 2018 by certified dive master.
- 16. 230vac inverter Hydraulic power pack for Lazarette hatch opening/closing. Limit switch replaced 2020.
- 17. Spares for ac motor start/run capacitors and dc motor brushes are onboard but not guaranteed. Can be easily updated under new ownership to suit cruising program if new owner desires.

ELECTRICAL SYSTEMS AND ELECTRONICS

1. **230 VAC**, 50/60 Hertz, Shore/Generator Power Distribution is served by either generator or 24kW 100Amp shore power and is split into two buses.
2. **230 VAC 50 Hertz, 9kW** Inverter Power Distribution services are controlled from the Pilothouse panel and from the pump room panel.
3. 230 VAC Power is controlled from Pilot House Panel, left-hand side is dedicated to Alternating Current. Some larger loads are controlled/protected with breakers from the pump room panel board.
4. Each cabin/living space has separate a sub-panel controlling/protecting local 230 AC (generator/shore and inverter backed) loads and 24v DC.
 - a. Shore Power has 24kW isolation transformer new 2018 (Bridgeport Magnetics torrid transformer) covering full system 100 amp load capacity,
 - b. 100 amp 230/240 vac, single phase, 2 wire system supplies shore power to Isolation Transformer at shore power frequency (60hz in North America and 50 hz most other countries)
 - c. New 100 ft shore power cable 2020. New 100 amp Pin connector for USA marinas. Shore Cable can be wired for 240 vac, 50 amp 60 hz

plug or 230vac, 63 amp, 50 hz as well. Vessel has many shore power plugs for other locales.

- d. 240 vac 50 amp shore power service or the starboard 13kw genset 230 vac will run 1 AC compressor and all other normal power needs including battery chargers, galley and all normal household loads. 1 AC compressor provides sufficient AC capacity for vessel on most days below 90 F or for night operation.
 - e. Shore power protected by 100 amp ELCB/GFCI breaker,
 - f. 100 AMP 230/240 single phase shore cable and HD industrial pin and sleeve cable power connector, new 2020
 - g. Port Generator (27 kw) will provide ships full 230 VAC capacities, simultaneously powering all battery chargers, water heater boilers and all AC compressors, air handlers galley and laundry equipment.
 - h. Starboard Generator (13 kw) will provide equivalent of a 50 amp shore power capacity and is used when full load is not needed.
5. 230VAC 9kW Inverter bus, 3 -3000 watt Victron Inverters, provides 230 vac at 50 hertz regardless of shore power source. Inverter backed power is permanently wired to equipment requiring uninterrupted 230VAC power such as engine room fans, freezer, ice maker etc as well as to temporary galley appliances via separate distribution and plug system.
- a. Separate Shore/Generator (EU round plug) versus Inverter backed (Italian straight Plug)) power distribution outlets ensures 230VAC power while underway without generator,
 - b. Essential 230vac components are supplied by Inverter backed power (Ice-maker, lazz freezer, navigation/electronics, microwave/galley equipment and entertainment cabinets),
 - c. Each cabin has both 230vac Shore/Generator and Inverter backed outlets power as well as 24 VDC outlets,
 - d. Each cabin space is served by a local combined 230AC Shore, 230VAC Inverter and DC power distribution panel,
6. 24 vDC system is served by 4 AGM Battery Banks and 5 Battery Chargers.
- a. House Battery (1100 amp hour at 24vDC), all 12-2 Volt cells replaced 2018 with Rolls Gel Battery cells,
 - b. Electronics Gel Battery bank
 - a. Main engine start and separate generator start Batteries replaced (new 2018 and 2019) as needed,
 - b. Emergency Electronics Battery, 2 new in 2020,

- c. 3 Mastervolt 24/100 Battery chargers, 1 Victron 70 amp charger for engine and generator start batteries and 1 50 amp emergency electronics battery charger.
 - d. 3 Engine driven alternators, 2-200 amp alternators charge house battery banks and 1-70 amp alternator charges engine start battery banks.
18. Lighting is 24vdc powered by Victron DC to DC convertors and Cantalupi dimmers, all bulbs converted to LED from Halogen with dramatic reduction in heat load and power,
- a. Red Night lighting is provided in all cabins and heads
 - b. All hanging locker closets are provided with door switch interior lighting illuminating closet upon opening,
 - c. Work spaces (Engine rooms, Lazzarette, forepeak and mast bilge storage areas) provided with 24vdc and 230v inverter backed LED lighting providing excellent light.
 - d. On deck lighting is provided by LED spreader lights on mizzen and main mast spreaders (2017), and deck genoa spotlight. Cockpit has lighting over table,
 - e. Navigation and anchor lighting are LED,
19. Navigation Electronics
- a. Furuno NavNet VX2 Navigation and Radar Ethernet Hub Networked
 - i. Dual 15" Display Screens and
 - ii. Black Box (BB) control heads refurbished 2020,
 - iii. Display LCD screens refurbished in 2018 and 2020
 - iv. 36 mile open array radar
 - v. 24 mile enclosed array radar
 - vi. GPS antenna (Digital Yacht custom config) dedicated input to Furuno Network, new 2020. Antenna mounted on aft deck.
 - vii. Furuno GPS 32 (currently unused).
 - viii. Furuno GPS 36 unit in pilothouse, antenna on mizzen mast, provides GPS data for pilothouse equipment and alternate for NavNet equipment,
 - ix. Furuno Fax30 Weather Fax (needs new antenna coupler and antenna whip at mizzen masthead),
 - x. Furuno networked Depth and Fisher Finder module (Abandoned)

- b. SiTex AIS class B transceiver with integrated VHF antenna splitter (new 2019), has dedicated deck mounted GPS antenna. Unit is NMEA 0183 connected to NavNet network and is shared on both monitors. Unit also has NMEA 2000 connection if needed and provides wireless AIS information broadcast for handheld devices.
- c. Brooks and Gatehouse Hydra 2000 speed, wind and depth sensors networked with Furuno NavNet and autopilot. 6 displays in sailing cockpit and 3 in pilot house. New Wind masthead sensor 2020.
- d. Simrad/Robertson Autopilot interfaced with B&G wind and Furuno NavNet. AP20 control heads at helm steering console and pilot house. 24VDC Hydraulic pump driven auto pilot ram with large oil reservoir.
- e. Simrad Shipmate RS 8400 VHF radios (2) interfaced between the pilot house and steering console, 1 antenna on mizzenmast, 1 antenna on main mast.
- f. Raymarine Ray70 VHF DSC Radio in pilothouse, antenna on main mast,
- g. ICOM M801E Single Sideband radio and antenna coupler for mizzenmast mast back stay antenna
- h. Iridium GO satellite radio with mizzenmast mounted OCEN antenna. Iridium GO allows cellphones to be used as a sat phone and for data email, texting and weather gribbs. Data service plan currently inactive, easily restored with new SIM data plan.
- i. Pepwave MAX BR1 4G/LTE Router provides LAN and WiFi with 3 mast mounted cell antennas to select optimum cell reception for cruising locale. Mizzen Mast and pilothouse deck mounted WiFi, GPS and cell antennas with selector switch. Router will accept two cellular SIM cards for diversity of service,
- j. Pepwave provides "Jupiter" LAN WiFi for on-deck and below deck WiFi service. Pepwave also provides another source of GPS location on network.
- k. RogueWave antenna mounted on mizzen mast provides alternate long range WiFi signal hot spot reception.
- l. Windows 10 computer and display screen at pilothouse with OpenCaptain charting and navigation system.
- m. SONOS distributed music streaming system with speakers in all cabins, salon, galley and cockpit locations provides music throughout

- boat. While offshore out of WiFi/internet range, saved or downloaded music is available,
- n. Denon audio video surround sound amplifier entertainment system in Main Salon with DVD Player and Apple TV for use with internet connection,
 - o. Sony 50" Smart TV monitor is new 2020 and is interfaced with Apple TV, and DVD player thru the DENON surround sound receiver with 5 B&W speakers.

WATER SPORTS EQUIPMENT (may convey with sale)

1. 14'-6" Catamaran RIB Tender, Ranger Prestige Elite, 50 HP Yamaha, VHF radio, GPS and lighting with deck chocks OR
2. 13' Novarania 400 DL RIB Tender, 50 HP Yamaha, VHF radio, GPS and lighting with deck chocks,
3. Towable Banana Tube, water skis and wakeboard,
4. 13' Laser Class sailing dinghy with deck chocks,
5. Bauer dive bottle air compressor and rack for 4 SCUBA tanks (no current certified tanks),
6. Assortment of regulators, snorkels, masks and fins,
7. Assortment of wet suit and diving belt/vest components.
8. Teak deck chairs and table for aft deck lounging. Umbrella for beach party set-up.