

Jupiter Equipment Systems Operability Verification

Service	Location	Equipment	Manufacturer	Model Number	Validation Test	Results	Notes/Comments
Alarm	Engine Room	Engine Bilge High Level Alarm	Rule		Actuate level switch, confirm annunciator horn and light on pilothouse alarm panel	PASS, SYSTEM FUNCTIONAL	Actuated level switch in bilge area and confirmed alarm horn and light on annunciator panel in pilothouse.
Alarm	Engine Room	Engine Room Fire and Smoke	Firex			NOT TESTED	Not tested. Owner reports alarm light and horn functional and tested during previous annual flag survey with "smoke". Unit actuated in early 2020 with a generator impeller failure also anecdotally confirming functionality.
Alarm	Engine Room	Fuel Oil filter alarm	Racor			NOT TESTED	Not tested. Owner reports alarm last actuated on Atlantic crossing with tank sloshing and bad fuel.
Alarm	ForePeak	High Level Alarm Switch	Rule		Actuate level switch, confirm annunciator horn and light on pilothouse alarm panel	PASS, SYSTEM FUNCTIONAL	Actuated level switch in bilge area and confirmed alarm horn and light on annunciator panel in pilothouse.
Alarm	Lazarette	Lazz Bilge High Level Alarm	Rule		Actuate level switch, confirm annunciator horn and light on pilothouse alarm panel	PASS, SYSTEM FUNCTIONAL	Actuated level switch in bilge area and confirmed alarm horn and light on annunciator panel in pilothouse.
Deck	Lazarette	Dive Air Compressor	Baur Compressor		Confirm Compressor within limitations without filling dive bottles (no bottles onboard)	CONDITIONAL PASS	Compressor starts and appears to run. Last full pressure test in 2018 by certified Dive Master. Needs full pressure test to confirm.
Deck	Lazarette	Hydraulic power pack and rams	Misc		Actuate up and down switches for both hatches. Validate that Port hatch will not open until Starboard hatch clears open.	PASS, SYSTEM FUNCTIONAL	Hatch up/down functions and interlock functional. Hydraulic power pack sounds normal.
Electrical	Engine Room	Generator 230 VAC, 50 HZ, 100 Amp Service	Kohler	27EFOZD	Confirm proper voltage, Frequency under load	PASS, SYSTEM FUNCTIONAL	7772hrs Confirmed proper system function. Voltage 222VAC, 51hz @56 amps, 74C degree coolant temp
Electrical	Engine Room	Generator 230 VAC, 50 HZ, 50 Amp Service	Kohler	13EFOZD	Confirm proper voltage, Frequency under load	PASS, SYSTEM FUNCTIONAL	1090hrs Confirmed proper system function. Voltage 220VAC, 51hz @48 amps, 83C degree coolant temp
Engine	Lazarette	Air Compressor	California Compressor	230vac	Confirm auto start on load or air useage	PASS, SYSTEM FUNCTIONAL	Compressor started and maintained air pressure to actuate main engine exhaust valves cycling.
Entertainment	Main Salon	TV Monitor	Sony			PASS, SYSTEM FUNCTIONAL	TV turned on and received signal from Apple TV via DENON AV unit. Owner reports TV unit new in 2020.
Entertainment	Main Salon	AV Amplifier	Denon			PASS, SYSTEM FUNCTIONAL	DENON AV unit started and confirmed with SONOS distributed music system, Sony TV and BluRay DVD.
Entertainment	Main Salon	DVD	Sony			PASS, SYSTEM FUNCTIONAL	BluRay unit confirmed functional.
Entertainment	Master Cabin	TV Monitor	Panasonic			PASS, SYSTEM FUNCTIONAL	TV turned on and received signal from NAD AV unit.
Entertainment	Misc	Distributed music system	SONOS			PASS, SYSTEM FUNCTIONAL	SONOS confirmed functional in all common spaces and cabins. Integrated with main salon and master cabin AV units.
Entertainment	Master Cabin	AV Amplifier with integrated DVD	NAD			PASS, SYSTEM FUNCTIONAL	NAD AV unit started and confirmed with SONOS distributed music system, Panasonic TV and BluRay DVD.
Entertainment	Pump Room	Lewmar Hydraulic power pack	Lewmar	Commander 400	Actuate winches and/furler to verify unit powers up and run hydraulic equipment	PASS, SYSTEM FUNCTIONAL	Bumped a winch switch and jib furler switch. Confirmed unit activates and runs winch and furler.
Ground Tackle	ForePeak	Port Windlass	LOFRANS	ERCOLE, 3500 Watt, 24vdc	Confirm windlass responds to Up and Down from deck switch and handheld controller.	PASS, SYSTEM FUNCTIONAL	Windlass started and stopped on up and/or down commands from hand held controller and deck foot switch. Chain and anchor ground tackle appear corrosion free.

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Ground Tackle	ForePeak	Starboard Windlass	LOFRANS	ERCOLE, 3500 Watt, 24vdc	Confirm windlass responds to Up and Down from deck switch and handheld controller.	PASS, SYSTEM FUNCTIONAL	Windlass started and stopped on up and/or down commands from hand held controller and deck foot switch. Chain and anchor ground tackle appear corrosion free. Port deck foot "Down" switch did not respond initially. Opened unit and cleaned contacts and switch responded. Recommend replacement of all 4 deck switches if problem reoccurs.
Hotel Services	Engine Room	Watermaker	Irdomar	MC2J 230vac 50hz	Confirm pump motor operation	CONDITIONAL PASS	Filters and housing need to be cleaned. Sea water pumps need to be tested. High Pressure pump activate-pass. Owner reports units functional when vessel last in active use however units not left in pickled state.
Hotel Services	Engine Room	Watermaker	Irdomar	MC2J 230vac 50hz	Confirm pump motor operation	CONDITIONAL PASS	Filters and housing need to be cleaned. Sea water pumps need to be tested. High Pressure pump activate-pass. Owner reports units functional when vessel last in active use however units not left in pickled state.
Hotel Services	ForePeak	Washer	Fridgeaire	230 vac 50hz		PASS, SYSTEM FUNCTIONAL	Control panel energized and cycle started; full cycle not run. Laundry machines newer (2019) and show little use. Units are 230 vac 50hz machines and function properly on generator power or 50 hz shore. Recommend soft start on laundry power supply to allow use on Inverter power when on shore power is 60hz.
Hotel Services	ForePeak	Dryer	Fridgeaire	230 vac 50 hz		PASS, SYSTEM FUNCTIONAL	See notes for Washing machine.
Hotel Services	ForePeak	Forepeak Built-In Unit Refrigeration	SeaFrost	BD XPX	Confirm BD unit and Digital control unit start, water flow from pump and unit maintains and reads box temperature	PASS, SYSTEM FUNCTIONAL	Confirmed unit and control start and run. Confirmed water pump start and run. Unit not in active and at ambient temperature so confirmed plates freezing up and temperaure probes responding correctly.
Hotel Services	Galley	Dishwasher			Confirm powers up and cycles	PASS, SYSTEM FUNCTIONAL	Started dishwasher and confirmed water arrived and cycle appeared to start. Did not run thru full cycle.
Hotel Services	Galley	Inverter powered Microwave oven	LG			PASS, SYSTEM FUNCTIONAL	Microwave energized and performed. Missing glass rotating base inside.
Hotel Services	Galley	Galley Refrig Unit Upper	SeaFrost	BD XPX	Confirm BD unit and Digital control unit start, water flow from pump and unit maintains and reads box temperature	PASS, SYSTEM FUNCTIONAL	Confirmed unit and control start and run. Initially plate temperature probe was malfunctioning; replaced plate temperature probe and unit restored to normal operation. Confirmed water pump running separately. Unit not in active use and at ambient temperature so confirmed plates freezing up and temperaure probes responding correctly; within 1 hours box temperature down to set point.
Hotel Services	Galley	Galley Freezer Unit Lower	SeaFrost	BD XPX	Confirm BD unit and Digital control unit start, water flow from pump and unit maintains and reads box temperature	PASS, SYSTEM FUNCTIONAL	Confirmed unit and control start and run. Confirmed water pump running separately. Unit not in active use and at ambient temperature so confirmed plates freezing up and temperaure probes responding correctly; within 2 hours box temperature down below freezing approaching set point.
Hotel Services	Galley	Propane Solenid Valve	Trident	1300-7703.1	Confirm control of propane supply.	PASS, SYSTEM FUNCTIONAL	Unit found closed and no gas available at stove burners. Actuated at control in galley and propane became available. Actuated switch with burner running and propane flow stopped with loss of flame.
Hotel Services	Galley	Gas cooktop	INOX	40", 4 burner and grille, Dual Fuel Ovens	Test burners	PASS, SYSTEM FUNCTIONAL	All burners confirmed. Piezo starters inconsistent. Owner reports crew always using starter sticks. Ovens not tested but Owner reports both electric and gas oven have been functioning .

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Hotel Services	Galley	Gas Sensor	XINTEX		Confirm operation and self test	PASS, SYSTEM FUNCTIONAL	Test limited to confirming unit energized and in showed safe indication (green) and self test button returned functional alarm. Unit has 2 sensors in galley bilge area. No test of gas sensors.
Hotel Services	Galley	Range Extractor Hood	Seimens		Confirm operation	PASS, SYSTEM FUNCTIONAL	Range hood exhaust fan run and lighting confirmed when testing stovetop burners.
Hotel Services	Main Salon	Beverage Cooler	SeaFrost	BD XP	Confirm BD unit and Digital control unit start, water flow from pump and unit maintains and reads box temperature	PASS, SYSTEM FUNCTIONAL	Confirmed unit and control start and run. Confirmed water pump run separately. Unit not in active and at ambient temperature so confirmed plates freezing up and temperaure probes responding correctly.
Hotel Services	Main Salon	Ice Maker	Raritan	Icerette Model 87	Confirm unit makes ice.	PASS, SYSTEM FUNCTIONAL	Powered up unit (230 vac Inverter Bus) and started unit. Unit ran and started making ice. Shut down and drained ice from bin.
HVAC	Engine Room	Chilled/Hot Water HVAC Compressors	Condaria	PCWM/FCL 22503	Validate start sequence with raw and circulation pumps starting and compressors start and stop on demand. Confirm cycling on circulation water temperature demand. Confirm hot and cold operation.	PASS, SYSTEM FUNCTIONAL	System starts and controls raw water pump and circulation pump. System cycles on circulation water temperature as designed. Unit tested and run on heating mode. Reversing valve for cooling mode functional. 2 of 3 compressors start and run cycle normally. 1 compressor out of service and will not start; owner reports compressor failed early 2015 probably due to substitute refrigerant used in Europe during previous ownership. Replacement compressor located and available. Owner reports adequate cooling with 2 of 3 compressors running since 2015.
HVAC	Misc	Fan Coil/Air Handlers	Condaria	10 air Handlers	Validate that fan starts with thermostat, multispeed switch functions and coil provides chilled/heated air with compressors running	PASS, SYSTEM FUNCTIONAL	System tested using heated circulating water due to outdoor air temperature. All fan coil units verified functional and respond to thermostat and fan speed selector switch. Units blow heated air
HVAC	Pump Room	KB Controller and Fan	Gianneschi		Confirm fan start and variable speed and direction	PASS, SYSTEM FUNCTIONAL	Started fan from variable speed controller and confirmed airflow. Fan speed and airflow direction can be changed at KB controller.
HVAC	Pump Room	KB Controller and Fan	Gianneschi		Confirm fan start and variable speed and direction	PASS, SYSTEM FUNCTIONAL	Started fan from variable speed controller and confirmed airflow. Fan speed and airflow direction can be changed at KB controller.
Life Safety or Regulatory	Misc	Life rafts, MOB, PFD, Fire and Emergency Equipment, Signaling and Survival gear etc.				NOT TESTED or INSPECTED	BEYOND SCOPE OF THIS INSPECTION REPORT. Owner reports compliance in previous flag equipment requirements and survey. Vessel currently out of service although safety equipment believed to be current until end 2020.
Main Engine	Engine Room	Main Propulsion 6095 hrs	Nanni marinized Mercedes Industrial V10	OM423	Start/Run/confirm proper engine temp	PASS, SYSTEM FUNCTIONAL	Confirmed engine start cycle, run, proper engine temp, and stop. Engine hours 6095 and last major service noted at 5885 hours included fuel pump and rail rebuild, raw and closed loop cooling pump implellors replacements and chemical cleaning and pressure test of tube bundle. Starboard exhaust elbow thermocouple not reporting to helm console guage/indicator. Recommend engine belt replacements and thermocouple replacement.
Main steering gear	Lazzerette	Hyraulic steering			Confirm wheel translates to rudder	PASS, SYSTEM FUNCTIONAL	Hydraulic rams actuated with helm wheel motion. Reservoir easy access in lazzerette. Main steering ram separate from autopilot ram.
Navigation	Helm Console	VHF	Simrad Shipmate	RS8400	Power on and confirm	PASS, SYSTEM FUNCTIONAL	Confirmed Receiving VHF
Navigation	Helm Console	AIS	SiTex	Metadata MDA-5	Confirm AIS targets show in Furuno system	PASS, SYSTEM FUNCTIONAL	Confirmed AIS targets show on Furuno displays
Navigation	Helm Console	Autopilot	Simrad	Ap 20, J300X	Validate control head energizes pump starts and runs	PASS, SYSTEM FUNCTIONAL	Energized autopilot head and pump verified start. Engaged pilot while at dock; main wheel locked (as designed) and rudder reacted to jog starboard/port commands. Rudder indicator on Simrad and dashboard B&G rudder indicator respond accordingly.

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Service	Location	Equipment	Manufacturer	Model Number	Validation Test	Results	Notes/Comments
Navigation	Helm Console	Starboard Radar/Chartplotter	Furuno	NavNet VX2 Black Box, 15" Display and open array Radar Antenna	Confirm radar, navigation/chart and AIS	PASS, SYSTEM FUNCTIONAL	Powered up system to confirm basic functionality; keypads responded appropriately and displays work in daylight brightness. Powered up radar antenna in standby and transmit. Successfully displayed radar targets or charts with AIS overlay. Chart validity or full test or verification of the many VX2 system functions, integrations and features beyond scope of this inspection, recommend Furuno Technician inspection or calibration if desired.
Navigation	Helm Console	Port Radar/Chartplotter	Furuno	NavNet VX2 Black Box, 15" Display and enclosed Radar Antenna	Confirm radar, navigation/chart and AIS	PASS, SYSTEM FUNCTIONAL	Powered up system to confirm basic functionality; keypads responded appropriately and displays work in daylight brightness. Powered up radar antenna in standby and transmit. Successfully displayed radar targets or charts with AIS overlay. Chart validity or full test or verification of the many VX2 system functions, integrations and features beyond scope of this inspection, recommend Furuno Technician inspection or calibration if desired.
Pump	Engine Room	AC/Heat Pump Circulating Water	Gianneschi	CB22	Confirm auto start with Condaria compressors start	PASS, SYSTEM FUNCTIONAL	Pump starts and cycles on demand from Condaria compressor control unit. Circulating water supplies all fan coils units.
Pump	Engine Room	AC/Heat Pump Raw Water Cooling Pump	Gianneschi	CB22	Confirm auto start with Condaria compressors start	PASS, SYSTEM FUNCTIONAL	Pump starts and cycles on demand from Condaria compressor control unit. Raw water flow confirmed exiting vessel at waterline.
Pump	Engine Room	Lube oil transfer pump	Marco		Bump start pump test with hand switch in engine room	PASS, SYSTEM FUNCTIONAL	Pump starts on "Lube Oil" switch in engine room.
Pump	Engine Room	Automatic Engine Exhaust Drain Back Box and level switch	Jabsco		Run main engine, confirm no tank overflow into engine bilge	PASS, SYSTEM FUNCTIONAL	With main engine running no drain tank overflow water or exhaust gas into bilge indicating pump and level switch functioning.
Pump	Engine Room	Automatic Engine Bilge Pump and level switch	Rule	Model 16A, 24vdc	Actuate level switch, confirm pump run, water pumping and run light on pump room panel	PASS, SYSTEM FUNCTIONAL	Bilge pump actuated using level switch and confirmed to pump down bilge. Pump "Run" red light actuated on pump room panel.
Pump	ForePeak	Chain Wash	Jabsco	Series 50860 Cyclone 24vdc	Confirm pump start and seawater flow to chain wash nozzles	PASS, SYSTEM FUNCTIONAL	Energized chain wash system from Windlass control panel. Pump started and provided seawater wash to nozzles. Pump new 2019.
Pump	ForePeak	Forepeak Refrigerator Cooling Pump	Jabsco	Continuous duty circulation pump	Confirm cooling water pump automatic start with SeaFrost panel and confirm overboard discharge flow	PASS, SYSTEM FUNCTIONAL	Pump starts and runs normally under control from Forepeak SeaFrost unit. Pump is new 2019.
Pump	ForePeak	Automatic Bilge Pump and Level Switch	Rule	Model 16A, 24vdc	Actuate level switch, confirm pump run, water pumping and run light on pump room panel	PASS, SYSTEM FUNCTIONAL	Bilge pump actuated using level switch and confirmed to pump down bilge. Pump "Run" red light actuated on pump room panel.
Pump	Lazarette	Automatic Lazz Bilge Pump and level switch	Rule	Model 16A, 24vdc	Actuate level switch, confirm pump run, water pumping and run light on pump room panel	PASS, SYSTEM FUNCTIONAL	Bilge pump actuated using level switch and confirmed to pump down bilge. Pump "Run" red light actuated on pump room panel.
Pump	Pump Room	230vac Freshwater Pump	Gianneschi	JET 518 B ME	Confirm pump start/stop on pressure switch	PASS, SYSTEM FUNCTIONAL	Confirmed pump start on low pressure and stops on high pressure switch setting. Pump appears to run normally, provides pressure quickly and flow to domestic water system. Owner reports slight weeping of mechanical shaft seal on 230VAC pump. Pump rebuild kit available onboard vessel.
Pump	Pump Room	24vdc Freshwater Pump	Gianneschi	JET 518 B	Confirm pump start/stop on pressure switch	PASS, SYSTEM FUNCTIONAL	Confirmed pump start on low pressure and stops on high pressure switch setting. Pump appears to run normally to domestic water system.

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Service	Location	Equipment	Manufacturer	Model Number	Validation Test	Results	Notes/Comments
Pump	Pump Room	Aft Graywater Pump	Gianneschi	CP40 N	Confirm pump start and pumping of graywater	PASS, SYSTEM FUNCTIONAL	Confirmed pump start from panel switchboard and verified pump flow thru dedicated strainer to discharge gray water tank. Aft and forward pumps are on a common header to double up drawing suction from either forward or aft tank. Owner reports that Forward and Aft Graywater tank level alarm lights on alarm panel work but intermittently due to typical level float switch.
Pump	Pump Room	Forward Graywater Pump	Gianneschi	CP40 N	Confirm pump start and pumping of graywater	PASS, SYSTEM FUNCTIONAL	See notes on aft graywater tank pump. Owner reports that aft and forward pumps are typically headered together to draw suction faster for forward tank pump down due to long hose run. Critical information for next captain/owner: leave forward tank hose run filled for next pump down cycle therefore critical to end pump down cycle of tank before drawing excessive air into strainer and pulling hose run dry. End pump down cycle when strong flow thru strainer ends, valve off strainer and stop pumping so as to not completely vacuate hose run.
Pump	Pump Room	24vdc Emergency Pump	Gianneschi	ACB331/1	Align valves for Fire Header. Confirm pump start with hand switch and confirm flow from sea strainer to Fire Header Hose bibb on deck. Align valves for bilge pumping and confirm suction	PASS, SYSTEM FUNCTIONAL	Aligned valves for "FIRE" header suction from sea chest strainer and "BILGE" overboard discharge to confirm pumps start, run and flow water. Pumps rebuilt at factory rep (Ingram Engineering in 2019). Full "FIRE" header test could be performed but will require setup of Fire Hose, confirmed to be stowed under Laz access hatch. Full bilge pump test could also be performed but extra water level should be added to bilge to ensure adequate suction.
Pump	Pump Room	230vac Emergency Pump	Gianneschi	ACB331/B	Align valves for Fire Header. Confirm pump start with hand switch and confirm flow from sea strainer to Fire Header Hose bibb on deck. Align valves for bilge pumping and confirm suction	PASS, SYSTEM FUNCTIONAL	Aligned valves for "FIRE" header suction from sea chest strainer and "BILGE" overboard discharge to confirm pumps start, run and flow water. Pumps rebuilt at factory rep (Ingram Engineering in 2019). Full "FIRE" header test could be performed but will require setup of Fire Hose, confirmed to be stowed under Laz access hatch. Full bilge pump test could also be performed but extra water level should be added to bilge to ensure adequate suction.
Pump	Pump Room	Forward Blackwater Pump	Gianneschi	MV44	Confirm pump start with hand switch and confirm flow at vented loop in pump room	PASS, SYSTEM FUNCTIONAL	Pump start confirmed and fluid flow confirmed at vented loop in pump room. Pump shutdown before pumpout of blackwater. Owner reports that Forward Blackwater tank level alarm lights on alarm panel work but intermittently due to typical level float switch maintenance issues. Forward blackwater tank has been empty and not used for recently.
Pump	Pump Room	Fuel Oil Transfer Pump	Gianneschi		Bump start pump test with hand switch in engine room	PASS, SYSTEM FUNCTIONAL	Pump start confirmed however without transfer of fuel. Owner reports pump transfers fuel to daytank at 100 liters per minute.
Pump	Pump Room	Aft Blackwater Pump	Jabsco		Confirm pump start with hand switch and confirm flow at vented loop in pump room	PASS, SYSTEM FUNCTIONAL	Pump start confirmed and fluid flow confirmed at vented loop in pump room. Pump shutdown before pumpout of guest heads blackwater tanks. Confirmed tank selection electric valve operation. Confirmed pumpout selection and lockout electric valve operation. Confirmed guest heads blackwater tanks (2) level monitor. Confirmed that new/replacement Gianneschi MV44 pump is available onboard.
Pump	Pump Room	SeaFrost Cooling Pump	March Pump	Series 893-10	Confirm cooling water automatic pump start with galley SeaFrost panel and confirm overboard discharge flow	PASS, SYSTEM FUNCTIONAL	Confirmed running with refrigerator units energized. Located in pump room room bilge.