

# OWNER'S NOTES



## ESCAPE – BAVARIA NAUTITECH – OPEN 40

### WELCOME ABOARD!

On behalf of Tim, Richard and I we extend a warm welcome aboard ESCAPE. We are confident that the modern style, amenities, and size will combine for a charter vacation to remember.

We chose ESCAPE due to its spirited sailing capability, spacious size, and French styling. All these advantages provided an uncompromising approach to the world of catamaran sailing. Built in Rochefort, France, on the French West Coast, and designed by renowned naval architect, Marc Lombard, ESCAPE exhibits the epitome of performance and ease of entertaining one comes to expect of a world class yacht.

As a testament to its appeal, the Bavaria Nautitech Open 40 has won accolades as Best Multihull from Cruising World magazine and Best Multihull from Sail magazine.

We have done everything possible to ensure a carefree charter. Should an unexpected question arise, please call the numbers below. We would be happy to take your call.

- San Juan Sailing Office: 360.671.4300 or 800.677.7245
- Maintenance Pro – ShipShape Professional Yacht Care – Dave Thompson 360.510.5105
- Owner - Charles 425.280.4540.

In order to maintain an impeccable sailing experience, for all charter guests, the boat is smoke free and regrettably pet free.

We know you will love sailing ESCAPE as much as we have. We look forward to reading your adventures in the boat's guest book.

Fair winds and following seas,

Charles, Tim and Richard

## ESCAPE – BAVARIA NAUTITECH – OPEN 40

### INTRODUCTION

The Owner's Notes is a document designed to advise the competent sailor in how the systems on Escape operate. The companion document to the Owner's Notes, explaining how to operate the systems on board Escape is the Operational Checklists. For ease of cross reference, the chapters in the Owner's Notes correspond to the same chapter in the Operational Checklists. Additionally, the sections addressing the chartplotter operation and VHF radio operation have been included in both documents. Our hope is you will find the Owner's Notes a useful tool to make your time aboard more stress free, fun, and safe.

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## ESCAPE – BAVARIA NAUTITECH – OPEN 40

### 1. ANCHORS

#### Description

- The primary anchor is a 44-pound Lewmar Delta and is mounted under the mast between the two hulls. The anchor is connected to 300' of 3/8" chain.
- The primary anchor chain length is marked as follows:
  - 2' lengths of line woven into chain:
    - 1 piece every 25'
    - 2 pieces at 100' + 200'
- The secondary anchor is a high-strength, aluminum, Fortress anchor. The secondary anchor can be connected to its own 30' of chain and 200' of nylon rode. The secondary anchor, its chain and rode are in the port cockpit locker.
- For tying the stern, there is a 600' spool of nylon line located in the port cockpit locker.
- To aid communication between the helm and foredeck, there are two portable radios.
  - LOCATION: The portable radios are located in the top drawer by the navigation station in the port hull.



ANCHOR CHAIN PLACARD – ANCHOR LOCKER LID

## 2. BARBEQUE

### Description

- The propane barbeque is a self-contained cooking unit with its own propane tank.
  - NOTE: The barbeque is located on the stern rail.
  - NOTE: The barbecue's propane tank is located in the transom locker.

## 3. BILGE PUMPS

### Description

- There are electric bilge pumps in each hull that remove water in each hull bilge and discharge bilge water overboard.
- There are emergency, manual bilge pumps that remove water from the hull or from that hull's engine compartment and discharge bilge water overboard. There is a selector valve that directs bilge water removal from the hull or from the engine compartment.
  - LOCATION: The emergency, manual bilge pumps are at the aft end of the cockpit settee.
  - LOCATION: The selector valve is in each cockpit locker.

### System Operation

- The electric bilge pumps are controlled with switches on the DC Electrical Panel. There is a single switch for the port bilge pump and a single switch for the starboard bilge pump. With the bilge switch in the ON position the bilge pump will operate automatically when the water level in the hull reaches the bilge pump sensor.
  - NOTE: The bilge pumps switches should be left in the ON positions at all times.
- The emergency, hand-operated bilge pumps are a single unit. There are no separate handles for the emergency bilge pumps.

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### **4. DECK HOUSE WINDOWS & COCKPIT ENCLOSURE**

#### **Description**

- The deck house windows are marine plexiglass. The cockpit enclosure panels are made from canvas and industrial plastic.

#### **System Operation**

- The aft cockpit enclosure panels can be rolled up and secured with two integrated snaps. These panels can also be removed from the deck house.
- The other cockpit enclosure panels slide towards the bow on integrated channels. These panels can also be removed from the deck house.
- NOTE: If the deck house windows or the cockpit enclosure panel windows need cleaning, first rinse the windows with fresh water to remove salt crystals.
- NOTE: If the deck house windows have dew in the morning, first rinse the windows with fresh water to remove salt crystals.
- NOTE: If salt crystals are not rinsed off the windows before cleaning, the salt will act as an abrasive causing permanent fogging of the window.

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### 5. DINGHY & OUTBOARD

#### Description

- The 10' inflatable dinghy is a Highfield with an aluminum hull.
- The dinghy comes with a 5hp Honda outboard.
  - NOTE: Always leave the outboard mounted on the dinghy.

#### System Operation

- The dinghy is stored on davits on the stern.
  - NOTE: Always store the dinghy on the davits. Never tow the dinghy behind the boat.



OUTBOARD STAYS ON DINGHY



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### 6. ELECTRICAL – A/C SYSTEM – DC SYSTEM - INVERTER

#### Description – A/C System

- There is a 110-volt A/C and a 12-volt DC system.
  - A/C power is supplied by:
    - Two engine driven alternators.
    - Shore power.
    - The house batteries via a Xantrex 1800 - Watt inverter.

#### System Operation – A/C System

- A/C power is controlled at the MAIN AC Panel and the A/C Electrical Control Panel.
  - LOCATION: The MAIN AC Panel and the A/C Electrical Control Panel is located in the port, aft cabin under the berth.
- A/C power is supplied to A/C outlets when:
  - Shore power is connected and the AC MAIN switch is in the ON position.
  - The inverter is operating and the AC MAIN switch is in the ON position.
    - NOTE: For inverter operation please reference System Operation – Inverter in this chapter.
- Colored dots on all electrical panels provide a reference to the operational position of the switch.
  - A green dot indicates – Normally ON when underway.
  - A double green dot indicates – Always ON.
  - A yellow dot indicates – ON as needed.
  - A red dot indicates – Never use.

#### Description – DC System

- DC power is supplied by six 107-amp batteries (house batteries).
  - LOCATION: The six batteries are in the port berth under the stateroom mattress beneath access panels.
- The two, 12-volt, 90-amp engine start batteries provide DC power for the engine starter to rotate each engine. Each engine has its own dedicated starting battery.
  - LOCATION: The engine start batteries are in the port berth under the stateroom mattress beneath access panels.
- The Victron Energy Monitor shows battery voltage, average consumption, current usage and capacity remaining in amp hours (Ah).
  - LOCATION: The Victron Energy Monitor is located on the DC electrical panel.

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### **System Operation – DC System**

- DC power is controlled by the DC Electrical Panel.
  - LOCATION: The DC Electrical Panel is located at the top of the steps by the port dinette bench seat.
- All batteries are charged through a Victron Energy Battery Charger.
- There are red, mechanical disconnect, T-handles on the DC Battery Panel. The T-handles mechanically disconnect the MAIN DC (house) batteries and the STARBOARD ENGINE start battery and the PORT ENGINE start battery from the DC system. During normal operation there is no need to move the T-handles.
- The DC system will automatically provide battery power to either engine starter from any engine start battery or from the house batteries.
- When the batteries are at 12.2v:
  - CHARGE the batteries.
- The engine start batteries and the house batteries are charged automatically when:
  - connected to shore power with the AC MAIN switch in the ON position and the BATTERY CHARGER switch in the ON position
    - NOTE: The AC MAIN Switch is located on the MAIN AC panel.
    - NOTE: The BATTERY CHARGER switch is located on the AC Electrical Control panel.

Or

- when the engines are running.
- When the batteries are being charged the XANTREX 1800W inverter control panel shows DC Volts as 13+.
  - LOCATION: The XANTREX 1800W inverter control panel is located on the forward bulkhead by the dinette table.
- The Victron Energy Monitor displays battery system operational status.
  - LOCATION: The Victron Energy Monitor is located on the DC Electrical Panel.
- The Victron Energy Monitor displays the following:
  - House battery voltage
  - Current flow out of the batteries – the display shows a negative (-) sign and amps
  - Current flow into the batteries – the display shows a positive (+) sign and amps
  - Power draw out of the batteries – the display shows a negative (-) sign and watts
  - Power flowing into the batteries – the display shows a positive (+) sign and watts
  - Amp Hours (Ah) consumed from the batteries
  - Battery state of charge – in percent
  - Time to Go – an estimate of how long the batteries can supply electrical power at the present load before needing recharging.
- Colored dots on all electrical panels provide a reference to the operational position of the switch.
  - A green dot indicates – Normally ON when underway.
  - A double green dot indicates – Always ON.

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- A yellow dot indicates – ON as needed.
- A red dot indicates – Never use.

### **Description – Inverter**

- The Xantrex 1800-Watt Inverter converts DC power to AC power for running AC powered equipment.

### **System Operation – Inverter**

- The XANTREX 1800W inverter control panel controls inverter operation.
  - LOCATION: The XANTREX 1800W inverter control panel is located on the forward bulkhead by the dinette table.
  - The display on the XANTREX 1800W inverter control panel shows:
    - House battery voltage
    - Input current from the batteries
    - Inverter output, when the inverter is being operated under a load, in watts.



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DC Battery Panel



Victron Energy Monitor



XANTREX Monitor

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### 7. ELECTRONICS – AUTOPILOT - CHARTPLOTTER – VHF

#### Description

- The Garmin GPS742 is a color chart plotter is a multi-function display that shows navigation and boat related data.
- A Garmin GMR 18 radar provides radar information at each helm station.
- A Garmin GMI 20 display provides speed, wind direction and water depth at each helm station.

#### System Operation

- A detailed description of operating the chartplotter and VHF are covered in the companion document Operational Checklists, Chapter 7. Electronics – Autopilot – Chartplotter – VHF.
- The autopilot is controlled at each helm station via the Garmin GMI 20 display and separately by a hand-held remote.
- Both helms have a Garmin GPS742XS color chart plotter. The chart plotters have a touch screen with radar control.
- Boat speed, in knots, shows on the chart plotter and the Garmin GMI 20 display at each helm. Speed is shown as boat speed through the water or boat speed over the ground.
- The depth sounder provides the depth of water, in feet, from the transducer to the sea bottom. The depth sounder is powered when the ELECTRONICS switch on the DC Electrical Panel is in the ON position.
  - LOCATION: The transducer is located on the bottom of the hull approximately one foot below the waterline.
  - NOTE: Depth sounders are prone to provide false readings in deep water. Water depth in the San Juan Islands is commonly 400’- 600’ feet deep. With this water depth false readings can occur.
  - CAUTION: Due to the possibility of false readings, setting depth alarms is not recommended.
  - CAUTION: Do not rely on depth sounder readings to avoid rocks. Rocks are clearly marked on the charts.
  - CAUTION: Operation in water less than 30 feet is not recommended.
  - CAUTION: Anchoring in water less than 15 feet is not recommended.
- The AIS (Automatic Identification System) system shows other AIS enabled vessels on the chart plotter.
  - AIS enabled vessels show as a triangle on the chart plotter.
  - AIS enabled vessels can be commercial ships or pleasure boats.
  - The AIS system operates automatically.

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- There is a mounted Garmin VHF 215 radio that allows communication with other VHF stations. This VHF radio is connected to an external remote handset at the starboard helm station.
  - NOTE: The mounted VHF radio is located on the forward side of the dinette table.
  - CAUTION: Always monitor channel 16 when operating the boat.
- There is a portable VHF radio that allows communication with other VHF stations.
  - LOCATION: The portable VHF radio is stored on the navigation station in the port hull.
  - LOCATION: The portable VHF radio receives weather channel stations.
  - CAUTION: Always monitor channel 16 when operating the boat.

### **How to Operate the Chartplotter and VHF Radio**

#### CHARTPLOTTER

- TO TURN THE CHART PLOTTER ON SHOWING BOAT LOCATION:
  - MOVE the ELECTRONIC switch to the ON position.
    - NOTE: The ELECTRONIC switch is located on the DC Electrical Panel.
  - PUSH the POWER switch to ON
    - NOTE: The POWER switch is located on the Garmin GPS 742XS Chart Plotter front panel.
      - This supplies power to the Garmin GPS 742XS Chart Plotter.
  - SELECT – I Agree
    - This shows boat location.
- TO ZOOM IN & ZOOM OUT ON THE DISPLAY:
  - SELECT the graphic “+” or “-“ on the display.  
Or
  - PINCH or SPREAD two fingers on the display.
- TO CHANGE TO A HEAD UP DISPLAY ON CHART PLOTTER:
  - SELECT Menu
  - SELECT Settings
  - SELECT Orientation
  - SELECT Head Up
- TO ACTIVATE THE RADAR:
  - SELECT Home
  - SELECT Radar
  - SELECT Single Range
  - SELECT Green Bulls Eye icon

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- NOTE: The Green Bulls Eye icon is located in the upper left corner of the display.
  - Radar transmits/receives
  - NOTE: The status of the radar “Xmit On” shows within the Green Bulls Eye icon.
  - Note: A green vertical bar shows within the Green Bulls Eye icon when the radar is On.
- TO SHOW RADAR OVERLAY & ACTIVATE THE RADAR:
    - SELECT Home
    - SELECT Radar
    - SELECT Radar Overlay
      - Radar overlay shows on display
    - SELECT Green Bulls Eye icon
      - NOTE: The Green Bulls Eye icon is located in the upper left corner of the display.
    - Radar transmits/receives
      - NOTE: The status of the radar “Xmit On” shows within the Green Bulls Eye icon.
      - Note: A green vertical bar shows within the Green Bulls Eye icon when the radar is On.
- TO SHOW SIDE-BY-SIDE CHART PLOTTER ORIENTATION:
    - SELECT Home
    - SELECT Combs
    - SELECT Split Nav
    - Or
    - SELECT Chart/Radar
- TO NAVIGATE TO THE HOME SCREEN:
    - SELECT Home
    - Select Nav. Chart
      - Note: If Home is not shown, sweep up from the bottom of the display.
- TO FIND THE COURSE OVER GROUND (COG) LINE
    - SELECT Menu
    - SELECT Layers
    - SELECT My Vessel
    - SELECT Heading Line
    - SELECT Angle Markers
      - Green vertical line shows
    - SELECT Source
    - SELECT GPS Heading (COG)



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- TO RETURN TO THE SHIP – STOP PANNING
  - Note: Anytime the navigation chart is manually moved “Stop Panning” shows.
  - SELECT “Stop Panning” to return to a normal navigation display.
  
- TO CLEAR WAYPOINT AND TRACKS
  - SELECT Info
  - SELECT User Data
  - SELECT Delete All User Data
    - Note: This deletes all tracks, waypoints, routes, auto guidance, paths, and boundaries.
  - SELECT OK
  
- TO CHANGE THE BRIGHTNESS/BACKLIGHT OF THE CHART PLOTTER
  - SELECT Home
  - SELECT Settings
  - SELECT System
  - SELECT Sounds & Display
  - SELECT Backlight
    - Note: From any screen, press the power switch repeatedly to scroll through the brightness levels. This is helpful when the brightness level is so low you cannot see the screen.

## VHF

### VHF Radio Operation – Interior VHF Radio

- NOTE: The interior VHF radio and the external remote microphone are tied together when changing radio channels. Changing a channel on one device changes the channel on the other device. The interior VHF radio volume and squelch and the external remote microphone volume and squelch are controlled independently.
  
- CAUTION: Always monitor channel 16 when operating the boat.
  
- NOTE: Radio Check is Channel 22 in the US and Channel 83 in Canada.
  
- LOCATION: The interior VHF radio is located on the forward bulkhead by the dinette table.
  
- TO TURN THE VHF RADIO ON:
  - MOVE the VHF/AIS switch to the ON position
    - NOTE: The VHF/AIS switch is located on the DC Electrical Panel.
  
- TO CHANGE THE VOLUME LEVEL
  - PUSH the VOL/SQ rotary knob twice
    - ROTATE the VOL/SQ rotary knob to the desired volume level

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- TO CHANGE THE SQUELCH LEVEL
  - PUSH the VOL/SQ rotary knob
  - ROTATE the VOL/SQ rotary knob to the desired squelch level
  
- TO CHANGE THE CHANNEL
  - ROTATE the SELECT WX rotary knob to the desired station.
    - NOTE: The triangles on the handset change the VHF radio channel.
    - NOTE: The 16/9 key changes the channel between channel 16 and channel 9. The transmission wattage automatically changes to 25 W when channel 16 is selected and 1 W when channel 9 is selected.
  
- TO HEAR WEATHER RADIO BROADCASTS
  - PUSH the SELECT WX rotary knob
  - ROTATE the SELECT WX rotary knob to the desired station
  
- TO CHANGE THE TRANSMISSION POWER SETTING
  - SELECT the HI/LO switch
  - SELECT the switch associated with 1W or 25W
    - NOTE: For normal operation, select 1 W to transmit. If the transmission is not received select 25 W to transmit.
  
- TO SELECT CHANNEL 16:
  - SELECT the 16/9 key
  
- TO SELECT THE FREQUENCY BAND (USA, CANADIAN, INTERNATIONAL)
  - SELECT MENU
  - SELECT CHANNEL
  - SELECT FREQUENCY BAND
  
- TO TURN ON CHANNEL SCANNING
  - SELECT SCAN
  - SELECT ALL
    - NOTE: Channel Scanning is not saved when power is removed from the VHF radio.
  
- TO TURN OFF A DIGITAL SELECTIVE CALLING (DSC) ALARM
  - SELECT any key
  
- TO TURN THE VHF RADIO OFF:
  - MOVE the VHF/AIS switch to the OFF position
    - NOTE: The VHF/AIS switch is located on the DC Electrical Panel

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### VHF Radio Operation – Exterior Remote Hand Held Microphone

- **NOTE:** The interior VHF radio and the external remote microphone are tied together when changing radio channels. Changing a channel on one device changes the channel on the other device. The interior VHF radio volume and squelch and the external remote microphone volume and squelch are controlled independently.
- **CAUTION:** Always monitor channel 16 when operating the boat.
- **LOCATION:** The exterior remote hand held microphone is located at the starboard helm station.
- **TO TURN THE VHF RADIO ON:**
  - MOVE the VHF/AIS switch to the ON position
    - **NOTE:** The VHF/AIS switch is located on the DC Electrical Panel
- **TO CHANGE THE VOLUME LEVEL**
  - PUSH the ENTER rotary knob twice
  - ROTATE the ENTER rotary knob to the desired volume level
- **TO CHANGE THE SQUELCH LEVEL**
  - PUSH the ENTER rotary knob
    - ROTATE the ENTER rotary knob to the desired squelch level
- **TO CHANGE THE CHANNEL**
  - ROTATE the ENTER rotary knob to the desired station
    - **NOTE:** The 16/9 key changes the channel between channel 16 and channel 9. The transmission wattage automatically changes to 25 W when channel 16 is selected and 1 W when channel 9 is selected.
- **TO HEAR WEATHER RADIO BROADCASTS**
  - PUSH the ENTER rotary knob
  - ROTATE the ENTER rotary knob to the desired station
- **TO CHANGE THE TRANSMISSION POWER SETTING**
  - SELECT the HI/LO switch
  - SELECT the switch associated with 1W or 25W
    - **NOTE:** For normal operation, select 1 W to transmit. If the transmission is not received select 25 W to transmit.
- **TO SELECT CHANNEL 16:**
  - SELECT the 16/9 key

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- TO SELECT THE FREQUENCY BAND (USA, CANADIAN, INTERNATIONAL)
  - SELECT MENU
  - SELECT CHANNEL
  - SELECT FREQUENCY BAND
  
- TO TURN ON CHANNEL SCANNING
  - SELECT SCAN
  - SELECT ALL
    - NOTE: Channel Scanning is not saved when power is removed from the VHF radio.
  
- TO TURN OFF A DIGITAL SELECTIVE CALLING (DSC) ALARM
  - SELECT any key
  
- TO TURN THE VHF RADIO OFF:
  - MOVE the VHF/AIS switch to the OFF position
    - NOTE: The VHF/AIS switch is located on the DC Electrical Panel

## ESCAPE – BAVARIA NAUTITECH – OPEN 40

### 8. EMERGENCY/SAFETY EQUIPMENT

#### Description

- The emergency and safety equipment on board consists of the following:
  - Hand-held fire extinguishers. There are four hand-held fire extinguishers.
    - LOCATION: One fire extinguisher is located under the galley sink. There is one fire extinguisher in each state room.
  - Personal flotation devices (PFD) for all occupants on board. There are four inflatable PFDs and eight foam PFDs.
    - LOCATION: The PFDs are located in the port cockpit locker.
    - CAUTION: Before using an inflatable PFD, ensure the green band on the gas cartridge assembly is showing. The green band indicates the gas cartridge is charged and the PFD is ready to auto inflate.
  - Foghorn
    - LOCATION: The foghorn is located in the center cockpit locker.
  - Emergency flares.
    - LOCATION: The emergency flares are located in the center cockpit locker.
  - Emergency bilge pumps. There are two emergency manual bilge pumps. Each manual emergency bilge pump is a complete unit with an integrated handle built into the cover plate. A selector valve directs the removal of bilge water from the hull or from the engine compartment.
    - LOCATION: The manual emergency bilge pumps are located at the aft end of each cockpit bench seat.
    - LOCATION: The selector valve is located in the port and starboard cockpit locker.
  - Emergency tiller handle. There is one emergency tiller handle. The tiller is a 1” diameter, 3’ long, formed, stainless steel pipe.
    - LOCATION: The emergency tiller is located in the port cockpit locker.
  - Lifesling
    - LOCATION: The Lifesling is located on the starboard lifelines just forward of the starboard helm.
  - Secondary Anchor. The secondary anchor is a stowable fortress anchor and can be used as an emergency anchor. There is 30’ of chain and 200’ of nylon rode for the secondary anchor.
    - LOCATION: The secondary anchor is located in the port cockpit lazarette.
    - LOCATION: The chain and rode are located in the port cockpit locker.

#### System Operation

- The port and starboard shower sump pumps can be used in an emergency to remove water from the boat’s interior.

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### 9. ENGINE

#### Description

- There are two 30 HP Volvo Penta diesel engines with sail drives. The engines are controlled with electronic, fly-by-wire throttles.

#### System Operation

- NOTE: Fluid levels are checked weekly by maintenance pros. There is no need to check engine fluid levels daily.
- NOTE: The raw water strainers are checked weekly by maintenance pros. There is no need to check the raw water strainer for contaminants daily.
- NOTE: Start the engines just before leaving the dock or mooring. There is no need to warm up the engines as excessive idling causes unwanted deposit build-up in the engines.
- A red illuminating light on the throttle quadrant indicates the throttle quadrant in command.
- In normal operation when changing To/From Forward/Reverse and accelerating the proper technique is:
  - Pause the throttles at the NEUTRAL position for 2 seconds.
  - Move the throttles to the FORWARD/REVERSE Idle position for two seconds.
    - NOTE: When changing from neutral to forward or reverse thrust there is a slight delay from the time the throttle lever is moved to the selected position and the corresponding thrust is applied from the engine. Wait for the transmission to engage, in the selected position, before increasing thrust.
  - Move the throttles to the desired position.
- Normal Operation Reference:
  - 1400 RPM – Low Cruise ~ 4 knots
  - 2200 PRM – Economy Cruise ~ 7 knots ~1.3 GPH
  - 2500 RPM – Fast Cruise ~ 8 knots ~ 1.5 GPH
  - 2800 RPM – Short Bursts Only - Emergency Max Cruise

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### 10. ENTERTAINMENT SYSTEMS

#### Description

- There is a Fusion Apollo Marine Entertainment System, (Model #MS-RA670). The stereo features Bluetooth, AM/FM radio, USB and an Aux connection.

#### System Operation

- The stereo is powered ON when the HIFI switch is in the ON position.
  - LOCATION: The HIFI switch is on the DC Electrical Panel.
- There is a Fusion app that can be downloaded to a smartphone. The app allows direct control of the stereo from the smartphone.

### 11. FUEL

#### Description

- There are two 58-gallon diesel fuel tanks.
- There is one fuel tank in the starboard hull and one fuel tank in the port hull.
- Each fuel tank supplies fuel to only one engine.
- The fuel tanks are not interconnected.
- Each fuel tank has its own fuel filler port.
  - LOCATION: The fuel filler port is located below the deck, under a wood grate, in a recessed area, by each helm station.
- A fuel gage indicates fuel level in each fuel tank.
  - LOCATION: The fuel quantity gage is located on the DC Electrical Panel.

#### System Operation

- Reference Fuel Consumption (both engines):
  - 2200 PRM – Economy Cruise ~ 7 knots ~ 1.3 GPH
  - 2500 RPM – Fast Cruise ~ 8 knots ~ 1.5 GPH
- The fuel tank fuel cap is removed with a T-Handle tool or with the ratchet/extension/socket.
  - LOCATION: The fuel tank fuel cap is located in the drawer below the starboard cabin settee.

## 12. HEADS & HOLDING TANKS

### Description

- There are two electronic, marine toilets. The marine toilets utilize sea water for filling, flushing and rinsing.
- There are two rocker switches, in each head, that control sea water in the marine toilets.
  - The top rocker switch is a single position switch. The top rocker switch brings in sea water and flushes the contents of the marine toilet simultaneously.
  - The bottom rocker switch is a two-position switch. The FILL position brings in sea water. The FLUSH position removes marine toilet contents.
- There are two 12 gallon holding tanks. Each head is connected to a single holding tank. The holding tanks drain by gravity and do not have a Y valve.
- There is a holding tank quantity indicator for each holding tank. When the holding tank is full the indicator turns red.
  - LOCATION: The holding tank quantity indicator is located above the two rocker switches.
- Each holding tank has a deck fitting for use at a pump out facility.
- Each holding tank has an associated valve that will evacuate holding tank contents by gravity.
  - LOCATION: The valve is located under a floorboard close to the head.

### System Operation

- CAUTION: Flush only bodily waste. Nothing outside of bodily waste should go down the marine toilet. Please place toilet paper and feminine articles in a plastic zip lock bag, a plastic bag or the waste basket.
- NOTE: There is a Rule-of-the-Sea: Whoever clogs the head unclogs the head. Do whatever it takes to not have to unclog the head.
- NOTE: Discharge of a marine holding tank is prohibited in US waters by the USCG. Discharge of a marine holding tank in deep water is permissible in Canadian waters. The Washington State director of saltwater quality has told San Juan Sailing the urine from boaters has no adverse impact on marine waters. Some sailors maximize the time between pumping the holding tanks by designating one head for liquid waste, with the holding tank valve open, and the other head for solid waste with the holding tank valve closed. Depending on the number of people, number of flushes and type of flushes, each holding tank will fill with approximately 1-2 days of use.



## 13. HEATERS

### Description

- Heat is provided by a hydronic forced air system. This system is independent from the engines. A heater unit heats water which is circulated through hoses. The hoses are connected to radiators. Fans are connected on the backside of the radiators. The fans push warm air from the radiators through heat registers. The system utilizes diesel fuel from the port fuel tank. A HEATER control switch, on the DC Electrical Panel, turns the system on and off.
- There are five temperature zones. Four temperatures zones, one in each cabin and one by the dinette table are controlled by separate thermostats. The fifth temperature zone, the cockpit settee area, has no thermostat control. Complementing the thermostats are two-speed fans that blow warm out of each heat register. The two-speed fans are manually controlled.
  - LOCATION: The two-speed fan switches in the cabins and the dinette area are located next to each thermostat. In the cockpit settee area, the fan switch is located by the refrigerator.
- A portable heater can add warmth to desired areas within the cabin.
  - LOCATION: The portable heater is stored in the master suite, port hull, in a cabinet behind the stair passageway door.

### System Operation

- The heater is best used on cool evenings or chilly mornings.
- It is best not to run the heater all evening. The boat will get too warm and the heater makes noise that may disturb light sleepers.
- To efficiently heat the cockpit settee area, lower the canvas companionway flaps.
- Avoid storing perishables in the port cockpit locker. The radiator in this space produces heat within the locker.

## ESCAPE – BAVARIA NAUTITECH – OPEN 40

### 14. NUANCES

1. **A/C Electrical Power:** When securing the boat with A/C Power ON, leave the engine room A/C Outlets ON to power the dehumidifiers in each engine compartment.
2. **Anchoring/Docking:** There are two portable radios to aid communication between the helm and foredeck. The portable radios are located in the top drawer by the navigation station in the port hull.
3. **Cabin Lighting:** To turn the lights on in the staterooms and heads, ensure that the STBD SIDE LIGHTING and PORT SIDE LIGHTING switches on the DC Electrical Panel are in the ON position. Each light can then be turned ON and OFF by pushing the individual light.
4. **Coffee Grounds:** Coffee grounds have an insidious way of clogging the galley sink drain. Dispose of coffee grounds in the galley garbage can.
5. **DC Electrical Panel Switches:** Mostly all the switches control just one item. The switches have a French upper description over an English lower description. The exception to this is the LPG/GAUGES switch. THE LPG/GAUGES switch controls two items in a single switch with an upper and lower description that is in English. The LPG (Liquified Petroleum Gas) part of the switch controls propane to the stove/oven. The GAUGES part of the switch controls the water and fuel gauges on the DC Electrical Panel.
6. **Dock & Buoy Lines:** The dock lines are all black and 25' long. The buoy lines are blue and 50' long. Stow the dock lines and the buoy lines in the forward storage lockers by the mast. These lockers have small drains.
7. **Engine Throttle Levers:** The throttles, at both helm stations, are electronic, fly-by-wire. There is only one helm station in command at a time. The throttle levers at each helm station are not connected and will not move in tandem.
8. **Fenders:** Stow the fenders in the forward storage lockers by the mast. These lockers have small drains.
9. **Floor Panels:** The removeable floor panels can easily be lifted with the use of a suction tool.  
LOCATION: The suction tool is located in the drawer under the starboard settee in the cabin.
10. **Foredeck Cushions:** Please stow the foredeck cushions in the port shower. This space is ventilated and has a drain. Please do not stow the cushions in either forward hull locker. These lockers do not have ventilation or drains.
11. **Heads:** Both heads have electric toilets. For proper use of the toilets and holding tanks please consult Operational Checklists Section 12. Heads and Holding Tanks.
12. **Max Prop:** After shutting down the engines:

## ESCAPE – BAVARIA NAUTITECH – OPEN 40

- MOVE the throttle levers to REVERSE for ten seconds. Then move the throttle levers to the NEUTRAL position. This action will feather the propeller blades. Feathered propeller blades will increase speed when sailing.
13. **Navigation and Anchor Lights:** The LED navigation lights, red, green, and white are within a single unit. The anchor light is a separate unit.  
LOCATION: The navigation lights and the anchor light are located at the top of the mast.
14. **Sliding Salon Entry Door:** To properly operate the door:
- PUSH and HOLD the latch DOWN until reaching the fully OPEN position. The door has an intermediate CLOSED position about 4” from the fully CLOSED position. Holding DOWN the latch fully, along the entire length of door travel, prevents the door from slamming to a stop at the intermediate CLOSED position.
15. **Storage:** There is additional storage under each mattress and under the navigation station seat.

## ESCAPE – BAVARIA NAUTITECH – OPEN 40

### 15. PROPANE

#### Description

- The appliances that utilize propane are the stove/oven and the barbeque.
- The stove/oven has its own propane tank.
  - LOCATION: The stove/oven propane tank is located in a separate starboard cockpit settee locker. The locker is located by the sliding door and accessed under a cushion.
  - NOTE: The propane in the tank should last for 4 weeks of normal use. San Juan Sailing staff checks the amount of propane weekly to ensure there is sufficient supply.
  - NOTE: For stove/oven operation please refer to Section 21. Stove & Oven page 39.
- The barbeque has its own propane tank.
  - LOCATION: The barbeque propane tank is located in the transom locker.
  - NOTE: The propane in the tank should last for 4 weeks of normal use. San Juan Sailing staff checks the amount of propane weekly to ensure there is a sufficient supply.
  - NOTE: For barbeque operation please refer to Section 2. Barbeque page 8.

### 16. REFRIGERATION

#### Description

- There are two refrigerators.
  - LOCATION: One refrigerator is located in the cockpit forward of the port settee.
  - LOCATION: One refrigerator is located in the galley by the sliding entry door.
- There are two Igloo Marine portable coolers with custom cushions for extra seating.

#### System Operation

- The refrigerator temperature is controlled by a temperature switch with a setting of 1 to 7. 1 is warmer; 7 is cooler.



COCKPIT COOLERS with CUSTOM CUSHIONS

## ESCAPE – BAVARIA NAUTITECH – OPEN 40

### 17. SAILS & RIGGING

#### Description

- The mainsail has full battens with three, pre-rigged reefing positions. The pre-rigged reef positions have corresponding sail tack points with reefing lines running in the boom. The mainsail is stowed in a stack pack. An electric winch helps in raising the mainsail. Lazy jacks help in dousing the mainsail in the stack pack.
- The jib is self-tacking and has its own furler.
- A gennaker is available with advanced notice and a qualifying spinnaker resume. The gennaker can be used in winds below 15 knots.
- The mainsail is attached to the mast utilizing an Antal system. With the Antal system alternating mast cars are secured to the main sail using a sacrificial cord. The purpose of the sacrificial cord is to separate under very heavy loads, removing pressure from the main sail and thereby preventing damage to the rig.

#### System Operation

- Hoist the mainsail first, then hoist the jib.
- Furl the jib first, then douse the mainsail.
- Reefing:
  - NOTE: Catamarans can be easily overpowered as the basic design prevents a significant amount of heel. Without the tactile/visual input of the boat heeling as wind speed increases, diligence of when to reef must be exercised.
  - NOTE: It is prudent to reef before windspeeds cause the boat to be overpowered.
  - Manufacturer's Guidelines for Apparent Wind Speed/Reef Reference:
    - Apparent Wind Speed 0 - 24 Knots
      - Main Sail Full
      - Jib Full
    - Apparent Wind Speed 25 – 28 Knots
      - Main Sail – First reef
      - Jib – Full
    - Apparent Wind Speed 29 – 31 Knots
      - Main Sail – Second Reef
      - Jib – Full
    - Apparent Wind Speed 32 – 35 Knots
      - Main Sail – Second Reef
      - Jib – 60% Full
    - Apparent Wind Speed 36 -50 Knots
      - Main Sail – Third Reef
      - Jib – Furled

## ESCAPE – BAVARIA NAUTITECH – OPEN 40

### **18. SHOWERS & SUMP PUMPS**

#### **Description**

- There are three hot/cold showers. There is a shower in the starboard hull and a shower in the port hull. There is an exterior hot/cold hose, for outdoor use, on the starboard transom.

#### **System Operation**

- Hot water is produced by two methods:
  - Method #1 - When connected to shore power and the WATER HEATER switch on the A/C Electrical Control Panel is in the ON position.
    - LOCATION: The A/C Electrical Control Panel is located in the port, aft stateroom.
  - Method #2 - When the engine has been motoring with a load for approximately an hour.
    - NOTE: The engine running at idle will not heat the water in the hot water tank.
- The port and starboard shower sump pumps can be used in an emergency to remove water from the interior of the boat.

## ESCAPE – BAVARIA NAUTITECH – OPEN 40

### 19. SPECIFICATIONS

Beam:	22' 8"
Cockpit Portable Cooler Dimension	21" Wide X 11' Deep X 10" Tall
Customs Decal Number:	9539250
Designer:	Marc Lombard
Displacement:	18,739 Lbs.
Documentation #	1277506
Draft:	4' 5"
Engine Starting Battery Capacity:	Two 12-volt 90-amp hour batteries. There is one battery for each engine.
Engine:	Twin 30 HP Volvo Penta diesel engines with Saildrives
Fuel Tanks:	Two tanks with 116 gallons total. 58 gallons in each tank.
Gennaker Sail Area:	753 Sq. Ft.
Headroom:	6' 3"
Holding Tanks:	Two tanks with 24 gallons total. 12 gallons in each tank.
House Battery Capacity:	Six 12-volt 107-amp hour batteries. Total capacity – 624-amp hours
Hull Number:	NAUN0496K516
Jib Sail Area:	279 Sq. Ft.
LOA:	39' 4"
LWL:	39' 2"
Make:	Bavaria Nautitech
Mast Height Above the Waterline:	65' 9"
Mast Height:	65' 9"
Mainsail Sail Area:	667 Sq. Ft.
Model:	Open 40
Number of Cabins:	3 – all with queen size berths
Number of Heads:	2 with electric flushing toilets
Propellers:	Two 3-Blade Max folding propellers
Refrigerator – Galley Dimensions:	17" Wide X 13" Deep X 25" Tall – with extra door space
Refrigerator - Cockpit Dimensions:	Main Compartment - 13" Wide X 14" Deep X 9" Tall Shelf – 13" Wide X 6" Deep X 6" Tall
Shore Power:	30 Amp Hour / 120 Volt
Stateroom berth size:	Both aft staterooms: 62" W X 79" L Forward stateroom: 61" W X 75" L
U.S. Customs and Border Protection	20035799
WA State Registration Number:	12602
Water Tanks:	116 gallons in 2 separate tanks. 58 gallons in each tank.
Year built:	2016

## ESCAPE – BAVARIA NAUTITECH – OPEN 40

### **20. SPARES/PARTS & TOOLS**

#### **Description**

- The boat has engine spares/parts, boat spares/parts and miscellaneous spares/parts.
  - LOCATION: All spares/parts are located in the starboard cockpit locker in plastic storage containers.
- A set of common tools are located in a plastic tool kit. Additional tools are located in a plastic tool box.
  - LOCATION: The tool kit and plastic tool storage box is located in the starboard locker.
- The boat has a suction tool that assists in removing floor panels.
  - LOCATION: The suction tool is located in the drawer under the starboard settee in the cabin.



SUCTION TOOL FOR REMOVING FLOORBOARDS



## ESCAPE – BAVARIA NAUTITECH – OPEN 40

### **21. STOVE & OVEN**

#### **Description**

- The stove/oven is a single, propane-fueled unit. The stove has three burners. The stove/oven is supplied by its own propane tank.
  - LOCATION: The stove/oven propane tank is located in a separate starboard cockpit settee locker. The locker is located by the sliding door and accessed under a cushion.
  - NOTE: The propane in the tank should last for 4 weeks of normal use. San Juan Sailing staff checks the amount of propane weekly to ensure there is sufficient supply.

### **22. WATER**

#### **Description**

- There are two 58-gallon fresh water tanks.
  - LOCATION: The fresh water tanks are located in lockers on either side of the mast.
- Hot water is supplied via a hot water tank.
  - The hot water tank capacity is 10 gallons.
- A fresh water faucet and pump supply fresh water in the galley sink.
- A galley seawater faucet and pump supply sea water in the galley sink.

#### **System Operation – Fresh Water**

- There are two white, rotary, water tank selector knobs which direct the supply of water from each tank.
  - LOCATION: The water tank selector knobs are located behind an access panel that is located under the salon table.
- Only one water tank selector knob should be in the OPEN position at one time.
- Water should be supplied from only one tank at a time.
- The water tanks are filled independently via a deck fill port on each hull.
- The water level in each tank is shown on a water level gage.
  - LOCATION: The water level gage is located on the DC Electric Panel.
- Hot water is produced by two methods:
  - Method #1 - When connected to shore power and the WATER HEATER switch, on the A/C Electrical Control Panel, is in the ON position.
    - LOCATION: The A/C Electrical Control Panel is located in the port, aft cabin.
  - Method #2 - When the engine has been motoring with a load for approximately an hour.

## ESCAPE – BAVARIA NAUTITECH – OPEN 40

- NOTE: The engine running at idle will not heat the water in the hot water tank.
- Water pressure is supplied by a pressure pump that is controlled by the FRESH WATER switch.
  - LOCATION: The FRESH WATER switch is located on the DC Electrical Panel.

### **System Operation – Galley Sea Water**

- Galley sea water pressure is supplied by a pressure pump that is controlled by the GALLEY SEA WATER PUMP switch.
  - LOCATION: The GALLEY SEA WATER PUMP switch is located on the DC Electrical Panel.



FRESH WATER GALLEY FAUCET



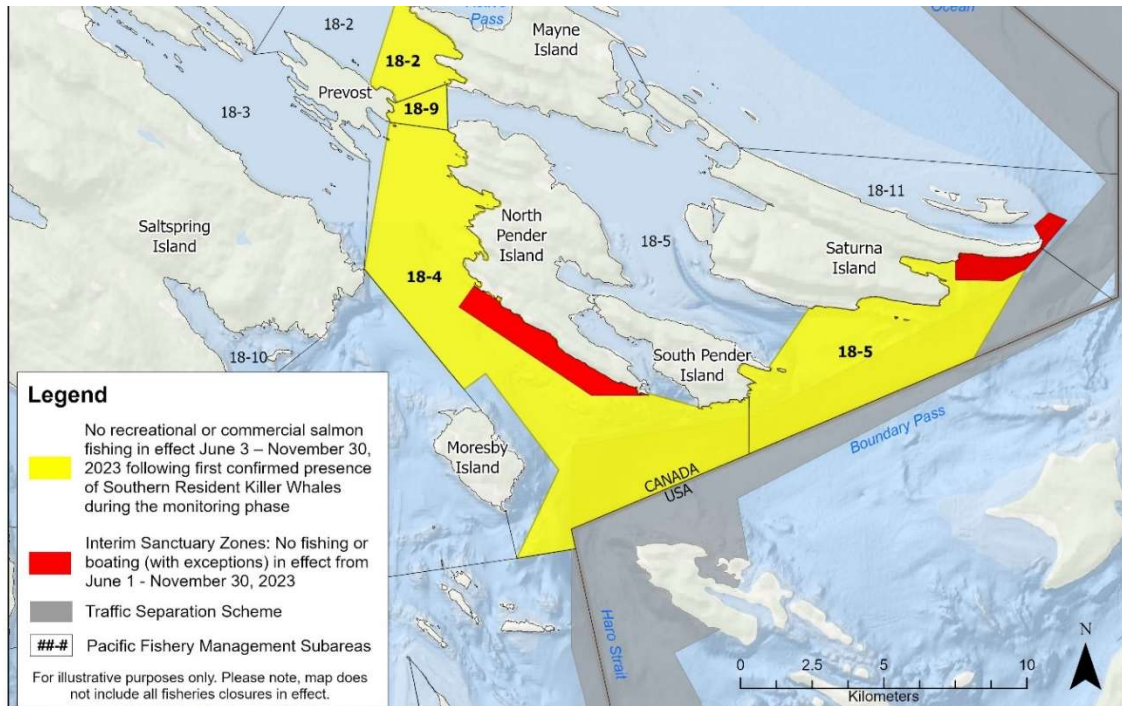
SEA WATER GALLEY FAUCET

# ESCAPE – BAVARIA NAUTITECH – OPEN 40

## 23. WHALE WISE NO BOATING ZONE

Our local Killer Whales are a wonderful part of the local family. But they are having a difficult time surviving due to declining salmon runs. These whales use echo location to find and catch their food. Therefore, noise pollution from boats and ships make it harder for them to thrive. In an effort to decrease human impact both the Canadian and US governments have implemented rules. We provided you a summary of these rules in the packet you receive when you arrived and there is more information in section 10 of the white reference book onboard ESCAPE. In general, stay at least 400 ft. away from the whales. Sometimes they come to you, if this happens shutdown the engine and turn off the instruments (assuming this is safe to do). They can hear the pings of the depth sounder – this is why we have you turn off the instruments.

In Canada they have gone a step further by creating some zones where boats are not allowed. This further improves the environment for the whales. The red areas in the diagram below show these



zones.

And here is an example of what they look like on ESCAPE’s chart plotters. The red lines have been added to help point out the dashed lines, which are what you will see on the plotter.

Note this is just to the west of Bedwell Harbour, so on your way in or out of there be sure to avoid this area.

