

Southern Girl

Galesville, Maryland



Boat Information Book

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How to use this Boat Information Book

This book is in the first phase of its development. The goal of this phase is to collect all of the information readily available on the Island Packet Yachts IP27 Centerboard cutter, hull 70.

Following the first phase, this book will be a continuing work in progress. With the ongoing maintenance of the vessel and the inevitable changes in equipment and gear, this book will always be in need of revision. To help determine the status of this book, the date of the last modification is indicated in the fold margin of each page.

This book is organized into nine parts as indicated in the Table of Contents, Each part is divided as appropriate for that section. Elements of the vessel are generally described from forward to aft and from port to starboard. For each element the location, type, size, manufacturer and product is given. Other information such as maintenance and inspection information will be added when I get to it.

Additional information, such as owner's manuals, for equipment is provided in a separate volume where that information is available. That volume is organized in the same order as this book.

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Island Packet Yachts: who not only made this fine vessel, but answered numerous questions.

Hartge Yacht Yard in Galesville, Maryland: who also answered a lot of questions.

The IP Home Port web site: which provided answers to questions, I hadn't asked yet.

Google: which provided access to product data that I didn't know existed.

The United States Naval Academy's Naval 44 and their Boat Information Book: which gave me the idea to do this.

John C. von Senden

1 G&S — General and Safety

1-10. Governmental Requirements

- 1-11. U.S. Coast Guard Documentation
No. 697400
- 1-12. State of Maryland Registration
MD 5939 BE
- 1-13. Hull Identification Number (HIN):
TDL27070L586
- TDL = Traditional Watercraft
 - 27 = model number
 - 070 = Hull number as in 70th built (all models, all production)
 - L = Year format (M or L)
 - 86 = production year
 - A = month of production (A=Aug, B=Sept, C=Oct) {apparently not used on this vessel.}
- 1-14. Insurance
- (A) USAA
- (B) Policy CIC 00812-93-71-91P

1-20. Safety

- 1-21. Personal Floatation Devices
- 1-21.01 Type 2, Near Shore
- (A) Location: The Type 2 PFD's are located in the quarterberth between sails.
- (B) Product: Kent Sporting Goods Co.
- i) Quantity: Three (3).
- 1-21.02 Type 4, Throwable (Life-Sling)

- (A) Location: The LifeSling2 is mounted on the port side stern pulpit rail.
- (B) Product: W. M. LifeSling2; Model 357634 LIFE #4-LS2/WHT
- (C) Manufacturer's product information may be found in Volume 2.
- 1-21.03 Type 4, Throwable (Cushions)
- (A) Location: The Type 4 PFD's are located in the quarterberth between sails
- (B) Product: Stearns; 6505 Model 724-04.
- i) Quantity: Two (2).
- 1-21.04 Type 5 Inflatable
- (A) Location: The SOSpenders are located in the quarterberth between sails. They must be worn during sailing to be counted as a PFD by the USCG.
- (B) Product: W.M. SoSpenders; Model 38AHRN.
- i) Quantity: Two (2).
- (C) Product: W. M. SoSpenders; Model 38MHAR-P.
- i) Quantity: One (1).
- (D) Manufacturer's product information may be found in Volume 2.
- 1-22. Horns
- 1-22.01 Compressed Air Horn
- (A) Location on Vessel: Starboard Cockpit Locker
- (B) Product: Falcon; Commander.

- 1-22.02 Manual Horn
 - (A) Location on Vessel: Starboard Cockpit Locker
 - (B) Manufacturer: Orion
- 1-22.03 Manual Horn
 - (A) Location on Vessel: Starboard Cockpit Locker
 - (B) Manufacturer: Perko
 - (C) Manufacturer's product information may be found in Volume 2.

- 1-23. Flares
 - 1-23.01 Current Flare Kit
 - (A) Location on Vessel: Starboard Cockpit Locker
 - (B) Product: Orion; Coastal Alert/Locate Signal Kit.
 - (C) Expiration Date: September 2007.
 - 1-23.02 Expired Flares
 - (A) Location on Vessel: Starboard Cockpit Locker
 - (B) Products: Orion Shotgun Aerial Flares and Handheld Flares
 - (C) Expiration Date: 2005
 - (D) Note that expired flares do not count as USCG required equipment

- 1-24. Fire Extinguishers
 - (A) Type: 5-pound, ABC dry chemical fire extinguishers.
 - (B) Product: Walter Kidde; Mariner 5.
 - (C) Before each Season: Inspect and tag.

- (D) Locations:
 - i) Mounted in the Companion Way, starboard of the engine compartment hatch.
 - ii) Mounted in the Engine Compartment.
 - iii) Mounted in Cockpit Lazarette.
- (E) Manufacturer's product information may be found in Volume 2.

-
- 1-25. First Aid
 - 1-25.01 First Aid Kit
 - (A) Location: Starboard Cockpit Locker
 - (B) Product: West Marine Adventure Medicine, Inc.; Medical Kit 300.
 - (C) Manufacturer's product information may be found in the first aid kit.

-
- 1-26. Other Safety Gear
 - 1-26.01 Location on Vessel: Starboard Cockpit Locker
 - 1-26.02 Gear:
 - (A) Wood Plugs
 - (B) Absorbent Bilge Material:
 - i) Product: Eagle; Bilge Boom

1-30. General Information

-
- 1-31. Physical Dimensions
 - (A) Length:
 - i) Overall: 30-feet, 0-inches
 - ii) On Deck: 26-feet, 6-inches
 - iii) Waterline: 24-feet, 3-inches
 - (B) Draft:
 - i) Centerboard Up: 2-feet, 8-inches
 - ii) Centerboard Down: 6-feet, 0-inches

- (C) Beam: 10-feet, 6-inches
- (D) Mast above Waterline: 38-feet, 6-inches
 - i) Nominal Bridge Clearance: 45-feet
- (E) Sail Dimensions:
 - i) "I" 35-feet, 0-inches (front of mast from Genoa halyard to the main deck, including height of trunk).
 - ii) "J" 12-feet, 0-inches (base of fore-triangle from head-stay pin to front of mast)
 - iii) "P" 30-feet, 0-inches (luff length of mainsail at aft face of mast)
 - iv) "E" 15-feet, 0-inches (foot length of mainsail)
 - v) "TY" (from staysail halyard to deck)
 - vi) "JY" (from staysail stay to the front face of the mast)
 - vii) Jib (100%) area: 210-square feet
 - viii) Jib (135%) area: 284-square feet
 - ix) Main area: 155-square feet
 - x) Staysail luff: 23-feet, 0-inches
 - xi) Staysail leech: 21-feet, 6-inches
 - xii) Staysail foot: 7-feet, 0-inches
- (F) Displacement:
 - i) Empty:
 - ii) Half Load:
 - iii) Full Load:

⇒ IPY: Displacement values? Empty? Half Load?

- (G) Tankage:

- i) Water capacity: 31-gallons, US
- ii) Fuel capacity: 19-gallons, US
- iii) Waste capacity: 11-gallons, US

1-32. Performance Coefficients

2 HUL — Hull and Deck

2-10. Hull, Deck and Trunk

- 2-11. Hull
- 2-11.01 The hull is constructed of a solid fiberglass laminate made up of hand-laid mats with triaxial roving as reinforcement.
- 2-11.02 The bowsprit is fabricated from a solid fiberglass laminate of fiberglass and plywood.
- 2-11.03 The hull finish consists of an ISO/NPG Gel coat
- 2-11.04 Cove Stripe:
- (A) Material: Vinyl Tape
 - (B) Manufacturer: Island Packet Yachts
- 2-11.05 Boot Stripe: Acrylic Enamel
- 2-11.06 Bottom Paint:

⇒ Obtain information on bottom paint(s).

- 2-12. Deck and Trunk
- 2-12.01 The deck and trunk is constructed of cored fiberglass laminate with a Polycel© matrix core.
- 2-12.02 For information on deck finishes refer to 5-11 below.
- 2-12.03 The cabin trunk liner is molded fiberglass, which is bonded to the deck and trunk
- 2-13. Cabin Sole and Bulkheads:
For information on the cabin sole and bulkheads refer to 5-12 below.

- 2-14. Hull to Deck Joint:
- (A) Material: Permagum™ sealant strip and stainless steel bolts

2-20. Through-Hull Fittings

- 2-21. Seacocks
- 2-21.01 General:
- (A) Material: Bronze
 - (B) Diameter: 1-1/2-inches
- 2-21.02 Locations:
- (A) Engine and Head Seacock: In Quarterberth Hold, see 5-44.03(A) below.
 - (B) Head Discharge Seacock: In forward-most Salon Starboard Hold, see 5-43.07(A) below.

⇒ Verify diameter of the seacocks.

- 2-22. Drains
- 2-22.01 General:
- (A) Material: Nylon through-hull fitting.

⇒ Verify material, type and diameter of each of the following drains.

- 2-22.02 Locations:
- (A) Head Sink Drain (Starboard)
 - (B) Galley Sink Drain (Port)
 - (C) LPG Compartment Drain (Port)
 - (D) Electric Bilge Drain (Stern)
 - (E) Manual Bilge Drain (Stern)

(F) Cockpit Scuppers (Stern)

2-23. Vents

2-23.01 General:

(A) Material: Chromed bronze.

⇒ **Determine material, type and diameter of each of the following vents.**

2-23.02 Locations:

(A) Water Tank Vent (Starboard)

(B) Waste Tank Vent (Starboard)

(C) Fuel Tank Vent (Starboard)

(D) Engine Exhaust (Stern)

2-24. Shafts

(A) Propeller Shaft: see 4-41 below.

(B) Rudder Shaft: see 2-44.01 below

2-30. Bilge

2-31. Bilge Pumps

2-31.01 Electric Bilge Pump

(A) Product: Attwood; Bilge King 2000 Model 4102

(B) Manufacturer's product information may be found in Volume 2.

2-31.02 Bilge Pump Switch

(A) Product: West Marine; WPS-01

(B) For additional information see 7-24 below.

(C) Manufacturer's product information may be found in Volume 2.

2-31.03 Manual (Emergency) Bilge Pump

(A) Product: Whale; Gusher Titan BP4410

(B) Manufacturer's product information may be found in Volume 2.

2-32. Cabin Sole to Engine Sump Drain:

A series of small diameter weeps between the bilge under the cabin sole and the engine sump drains under the cabin sole.

2-40. Steering

2-41. Wheel

(A) Type: 26" SS Destroyer

(B) Manufacturer and Model: Edson; 1-644S-26

(C) Manufacturer's product information may be found in Volume 2.

2-42. Rack and Pinion Gear

(A) Type: Aft Mount

(B) Manufacturer and Model: Edson; 1-343-1.

(C) Manufacturer's product information may be found in Volume 2.

2-43. Wheel brake

(A) Manufacturer and Model: Edson; 1-783-12

2-44. Rudder

2-44.01 Shaft:

(A) Material: 1-1/2-inch diameter stainless steel.

(B) Rudderpost bearings:

⇒ **Need to find out additional information on the rudder post bearings.**

- 2-44.02 Rudder blade: The rudder-blade was opened and rebuilt in February 2005.
- (A) Skin: Molded fiberglass laminate; one for each half of the rudder. The two halves are sealed at the centerline.
 - (B) Frame: Stainless steel, welded to shaft.
 - (C) Core: Solid high-density foam.

2-50. Centerboard

- 2-51. Drum and Pendant Spool
- (A) Material: Molded fiberglass drum with stainless steel shaft, delrin bearings, and aluminum bracket
- 2-51.02 For information on the pendent line see 3-34.01 below.
-
- 2-52. Cable, Conduit and Board Connection
- 2-52.01 The cable is 5/32-inch diameter, 7-19 stainless steel cable, and 16-feet, 4-inches in length. There is one (and only one) Nicropress™ connection with a thimble at the center board.
- 2-52.02 The conduit is stainless steel with hose clamps at centerboard pivot.
- 2-52.03 The centerboard pivot consists of a welded stainless steel sheave box with chrome plated bronze sheave and stainless steel bushing in the centerboard.
-
- 2-53. Centerboard
- The centerboard is constructed of molded fiberglass faces with high density core and tip ballast.

2-60. Ground Tackle

- 2-61. Anchors
- 2-61.01 Bruce Anchor (Port)
- (A) Material: Bronze
 - (B) Product: Bruce; 7.5kG
- 2-61.02 Lightweight Anchor (Starboard)
- (A) Material: Aluminum
 - (B) Product: Fortress; FX-16.
 - (C) Manufacturer's product information may be found in Volume 2.
- 2-61.03 Spare Anchor
- (A) Material: Galvanized steel.
 - (B) Product: Danforth
-
- 2-62. Hawser Pipe and Caps
- (A) Port: Chromed Bronze – Sea Dog
 - (B) Starboard: Original Island Packet Yacht issue.
-
- 2-63. Rode
- (A) Bruce Chain and Rode (Port): 30-ft chain, 180-ft of 1/2-inch, three strand nylon line
 - (B) Danforth Chain and Rode (Starboard): 10-ft chain, 180-ft of 1/2-inch, three strand nylon line

2-70. Deck Hardware

- 2-71. Cleats
- 2-71.01 Bow Port Cleat
- 2-71.02 Bow Starboard Cleat
- 2-71.03 Midship Port Cleat

- 2-71.04 Midship Starboard Cleat
- 2-71.05 Stern Port Cleat
- 2-71.06 Stern Starboard Cleat
- 2-71.07 Cockpit (Wood) Port Cleat
- 2-71.08 Cockpit (Wood) Starboard Cleat
- 2-71.09 Trunk (Wood) Port Cleat
- 2-71.10 Trunk (Wood) Starboard Cleat
- 2-71.11 Mast Forward High Cleat
Intended for Staysail Topping Lift, currently used for Main Topping Lift
- 2-71.12 Mast Port High Cleat:
Lazy Jack
- 2-71.13 Mast Starboard High Cleat:
Lazy Jack
- 2-71.14 Mast Forward Mid Cleat:
Staysail Halyard
- 2-71.15 Mast Port Mid Cleat
Jib Halyard
- 2-71.16 Mast Starboard Mid Cleat
Boom Vang
- 2-71.17 Mast Forward Low Cleat
Currently used for Staysail Topping Lift

⇒ Describe construction (or product) and photograph each type of cleat.

- 2-72. Trunk Double Line Clutch
 - (A) Product: Powerclutch XL
 - (B) Manufacturer's product information may be found in Volume 2.

- 2-73. Chocks
 - 2-73.01 Bow Port Chock
 - 2-73.02 Bow Starboard Chock

⇒ Describe construction or list product for chocks and photograph them.

2-80. Pulpits and Lifelines

- 2-81. Pulpits:
 - 2-81.01 General
 - (A) 1-inch outside diameter stainless steel tubing.
 - 2-81.02 Pulpits:
 - (A) Bow Pulpit
 - (B) Stern Port Pulpit
 - (C) Stern Starboard Pulpit
 - (D) Stern Ladder Gate
- 2-82. Lifelines
 - 2-82.01 Port Lifelines
 - 2-82.02 Starboard Lifelines

⇒ For both pulpits and lifelines provide description of construction and diameter of tubes and lines.

3 SRS — Spars, Rigging and Sails

3-10. Mast and Boom

3-11. Mast

3-11.01 General:

- (A) Material: Aluminum 6061-T6
- (B) Product: Isomat; NG-31
The mast is rigged for externally routed halyards.

3-11.02 Masthead Rig

- (A) Cast aluminum with four (4) sheaves, two forward and two aft of the mast.

3-11.03 Shroud Spreader Bases; see 3-12 below.

3-11.04 Mainsail Gate:

- (A) Material: Stainless Steel
- (B) Manufacturer: SECO South
- (C) Thumbscrew Size: 4mm diameter by 15mm (5/8-inch) long with plastic head.

3-11.05 Gooseneck Brackets and Hardware

- (A) Product: Isomat; NG1-11AC

⇒ **Verify product and configuration.**

3-11.06 Winch Pads:

- (A) Material: Teak
- (B) Replacement Product: Isomat; NG31-20.
 - i) Forged aluminum bracket, clear anodized. Fastens to mast with eight 5mm (3/16-inch) rivets.

3-11.07 Mast Step:

- (A) Material: Cast aluminum.
- (B) Product: Isomat; NG31-1
- (C) Rake: "One mast width."

⇒ **Verify mast step product.**

3-12. Shroud Spreaders

3-12.01 General:

- (A) Material: Aluminum 6061-T6
- (B) Product: Isomat; BF-3

⇒ **Verify spreader product and configuration.**

3-12.02 Spreader Tip Assemblies:

- (A) Product: Isomat; BF3-1K

3-12.03 Spreader Bases:

- (A)

⇒ **Determine spreader base product and configuration.**

3-13. Main Boom

3-13.01 General:

- (A) Material: Aluminum 6061-T6
- (B) Product: Isomat; NB-26

The boom is rigged for two "jiffy" or slab reefs.

3-13.02 Gooseneck

- (A) Product: Isomat; NB26-1.

3-13.03 Boom Bail Assemblies:

- (A) Product Isomat; NB1-15A.

3-13.04 Outhaul Assembly

(A) Product: Isomat; NB26-2A.

3-14. Staysail Boom

3-14.01 General:

(A) Type: 2-inch outside diameter aluminum extrusion.

3-14.02 Gimbals Fitting

3-14.03 Boom End

⇒ Obtain more information on staysail boom fittings.

3-15. Whisker Pole

(A) Manufacturer: Forespar

⇒ Obtain product information on whisker pole.

3-20. Standing Rigging

3-21. Forestay

(A) Material: Stainless steel 1-19 wire with rotary swedged terminals

3-22. Bobstay

(A) Material: Stainless steel rod
(B) Manufacturer: Navtech

3-23. Shrouds

3-23.01 General:

(A) Material: Stainless steel 1-19 wire with rotary swedged terminals

3-23.02 List of Shrouds:

(A) Port Forward Shroud
(B) Port Mid Shroud

(C) Port Aft Shroud

(D) Starboard Forward Shroud

(E) Starboard Mid Shroud

(F) Starboard Aft Shroud

3-24. Aft Stays

3-24.01 General:

(A) Material: Stainless steel 1-19 wire with rotary swedged terminals

3-24.02 List of Aft Stays:

(A) Port Aft Stay
(B) Starboard Aft Stay

3-30. Running Rigging

3-31. Genoa Rigging

3-31.01 Halyards

(A) Material: Vectran Core Double Braid
(B) Size: 8mm (5/16-inch) by 79-feet
(C) Color: White with Red Fleck
(D) Product: Yale; Crystalyne
(E) Ends: Eye splice and reeving splice.

3-31.02 Sheet(s)

(A) Material: Polyester Double Braid
(B) Size: 10mm (3/8-inch) by 92-feet.
One line is doubled at the clew for the two sheets.
(C) Color: Red
(D) Product: Marlow; Marlowbraid.
(E) Ends: End whipped each end.

3-31.03 Roller Furling

(A) Manufacturer: Harken; Unit 1, Series A

- (B) Components:
 - i) Upper Swag Eye Assembly
 - ii) Foil Extrusion
 - iii) Halyard Swivel
 - iv) Sail Feeder
 - v) Torque Tube and Pre-feeder
 - vi) Drum Assembly
- (C) Furling Line
 - i) Material: Polyester Double Braid
 - ii) Size: 8mm (5/16-inch) by ~32-feet
 - iii) Color: White with Black Fleck
- (D) Manufacturer's product information may be found in Volume 2.

3-32. Staysail Rigging

3-32.01 Halyards

- (A) Material: Vectran Core Double Braid
- (B) Size: 8mm (5/16-inch) by 64-feet
- (C) Color: White with Blue Fleck
- (D) Product: Yale; Crystalyne
- (E) Ends: Eye splice and reeving splice.

⇒ **Need to replace with halyard 80-feet to accommodate IPY rigging.**

3-32.02 Sheet

- (A) Material: Polyester Double Braid
- (B) Size: 8mm (5/16-inch) by 24-feet
- (C) Color: Blue
- (D) Product: Marlow; Marlowbraid.
- (E) Eye splice and end whip

3-32.03 Topping Lift

- (A) Material: Polyester Double Braid
- (B) Size: 6mm (1/4-inch) by ~34-feet
- (C) Color: White with Black Fleck
- (D) Intend to replace with 5mm (3/16-inch by 43-feet, black double braid polyester line ending in eye splice and reeving splice.

3-33. Mainsail Rigging

3-33.01 Halyards

- (A) Material: Vectran Core Double Braid
- (B) Size: 10mm (3/8-inch) by 86-feet
- (C) Color: White with Green Fleck
- (D) Product: Yale; Crystalyne
- (E) Ends: Eye splice and reeving splice.

3-33.02 Sheets

- (A) Material: Polyester Double Braid
- (B) Size: 10mm (3/8-inch) by 52-feet
- (C) Color: Green
- (D) Product: Marlow; Marlowbraid.
- (E) Ends: Eye splice and end whip.

3-33.03 Topping Lift

- (A) Material: Polyester Double Braid
- (B) Size: 6mm (1/4-inch) by 36-feet.
- (C) Color: Black with White Fleck
- (D) Product: Samson; XLS
- (E) Eye splice and end whip
- (F) Connected to boom with RWO Camcleat C253AN attached with shackles.

3-33.04 Boom Vang

- (A) Material: Polyester Double Braid
- (B) Size: 8mm (5/16-inch) by 26-feet
- (C) Color: Black with White Fleck

- (D) Product: Samson; XLS
- (E) Ends: Eye splice and end whip.
- 3-33.05 Reefing Lines
 - (A) First Reef:
 - i) Material: Polyester Double Braid
 - ii) Size: 10mm (3/8-inch) by ~30-feet
 - iii) Color: White with Green Fleck
 - (B) Second Reef
 - i) Material: Polyester Double Braid
 - ii) Size: 10mm (3/8-inch) by ~35-feet
 - iii) Color: White with Red Fleck

⇒ **Verify lengths of reefing lines**

Intend to replace reefing lines with:
8mm (5/16-inch) polyester double braid,
white with green fleck with reefing splice
and end whip.

- 3-33.06 Traveler

Currently there are no traveler control lines.
Intend to add 8mm (5/16-inch) by 6-feet on
each side.
- 3-33.07 Lazy Jack Lines: The lazy jack lines are white,
6mm (1/4-inch) cotton braided line with an eye-
thimble sliced in. The lower line is looped and
tied to the boom (see 3-45 below). There are
cleats each side of the mast dedicated to the
lazy jacks (see 2-71.12 above). This system was
simplified and re-rigged in March 2006.

- 3-34. Other Running Rigging
- 3-34.01 Centerboard Pennant

- (A) Material: Polyester Double Braid
- (B) Size: 5/16-inch by 18-feet
- (C) Color: White with Black Fleck
- 3-34.02 Centerboard cable
 - (A) Material: Stainless Steel Cable
 - (B) Size: 7x19 (5/32-inch) by 16-feet, 4-inches

3-40. Blocks

- 3-41. Genoa Blocks
 - 3-41.01 Masthead Genoa halyard sheaves
 - 3-41.02 Port Sheet Spring Aft Block
 - (A) Product: Thumblox
 - 3-41.03 Port Sheet Spring Block on Traveler
 - (A) Product: Ronstan RF874
 - 3-41.04 Starboard Sheet Spring Aft Block
 - (A) Product: Thumblox
 - 3-41.05 Starboard Sheet Spring Block on Traveler
 - (A) Product: Ronstan RF874
 - 3-41.06 Furling Line Blocks
 - (A) Quantity: Three (3)
 - (B) Product: Harken

- 3-42. Staysail Blocks
 - 3-42.01 Halyard Blocks
 - (A) On mast: Ronstan RF1351
 - (B) Free block with snap shackle: Originally
Ronstan RF1354
 - i) Replaced with Ronstan RF40100HL with
RF6170 snap shackle.
 - 3-42.02 Topping Lift Mast Block: Ronstan RF1351
 - 3-42.03 Sheet Starboard Standing Block

- (A) Product: Ronstan; RF1276
- 3-42.04 Sheet Port Standing Block with Becket
- (A) Product: Ronstan; RF1276
- 3-42.05 Sheet Double Block on Boom
- (A) Product: Ronstan; RF1256
-
- 3-43. Mainsail Blocks
- 3-43.01 Masthead main halyard sheaves
- 3-43.02 Halyard Mast Cheek Block
- (A) Product: Ronstan; RF 871
- 3-43.03 Halyard Trunk Cheek Block
- (A) Product: Ronstan; RF 871
- 3-43.04 Double Trunk Cheek Block
- (A) Product: Ronstan; RF 879
- 3-43.05 Sheet Aft Boom Block with Becket
- (A) Product: Ronstan; RF 869
- 3-43.06 Sheet Trunk Standing Block
- (A) Product: Ronstan; RF 872
- 3-43.07 Sheet Spring Double Block on Traveler
- (A) Product: Ronstan; RF 866
- 3-43.08 Sheet Forward Boom Block
- (A) Product: Ronstan; RF 868
- 3-43.09 Boom Vang Fiddle Block
- (A) Product: Ronstan; RF 1368WM
- 3-43.10 Vang Trunk Fiddle Block with Cam Cleat
- (A) Product: Ronstan; RF 1375WM
-
- 3-44. Centerboard
- 3-44.01 Centerboard Pendant Through-Cockpit sheave
-
- 3-45. Lazy Jack System
- 3-45.01 Port Lazy Jack Mast Block
- 3-45.02 Starboard Lazy Jack Mast Block

- 3-45.03 Boom Lazy Jack Becket

3-50. Traveler

- 3-51.01 General:
- (A) Manufacturer: Ronstan
- 3-51.02 Traveler track: Ronstan; RF1313
- 3-51.03 Traveler car
- 3-51.04 Traveler stops: Current end stop is Ronstan; RF1306. Intend to replace with Traveler Control End such as Ronstan; RF1430

3-60. Line Clutches

- 3-61.01 Main Halyard and Sheet Clutch
- (A) Product: Spinlock; Powerclutch XT

3-70. Winches

- 3-71.01 Port Cockpit Winch
- (A) Manufacturer: Lewmar; Model #16
- 3-71.02 Starboard Cockpit Winch
- (A) Manufacturer: Lewmar; Model #16
- 3-71.03 Port Mast Winch
- (A) Manufacturer: Lewmar; Model #7
- 3-71.04 Starboard Mast Winch
- (A) Manufacturer: Lewmar; Model #7
- 3-71.05 Trunk Winch
- (A) Manufacturer: Bariant; Model #10ST. Intend to replace with Lewmar

3-80. Sails

3-81. Genoa

- (A) Material: Polyester Composite
 - (B) Manufacturer: Quantum; Composites RF tri-radial
-

3-82. Staysail

- (A) Material: Woven Polyester
 - (B) Manufacturer: Espirit
 - (C) No hanks; uses bull rope.
-

3-83. Mainsail

- (A) Material: Woven Polyester
- (B) Manufacturer: Quantum; Crosscut Mainsail

4 PWR — Auxiliary Propulsion

4-10. Engine

4-11. Diesel Engine

- (A) Product: Yanmar; 2GM20F
- (B) Manufacturer's product information may be found in Volume 2.

4-12. Transmission

- (A) Product: Yanmar; KM2-C
- (B) Manufacturer's product information may be found in Volume 2.

4-13. Muffler

- (A) Product: Vernay Products; Vernalift
- (B) Manufacturer's product information may be found in Volume 2.

4-20. Fuel System

4-21. Fuel Tank

- (A) Material: Welded Aluminum
- (B) Capacity: 19-gallons, US.

4-22. Fuel Shut-Off Valve

⇒ **Visually confirm location of fuel shut-off valve.**

4-23. Fuel Lines

- (A) Fuel Fill to Fuel Tank
- (B) Fuel Tank to Fuel Filter
- (C) Fuel Filter to Diesel

- (D) Diesel to Fuel Tank
- (E) Fuel Tank to Vent

⇒ **Determine size and type of fuel lines.**

4-24. Fuel Filter

- (A) Product: Dahl; Model 100
- (B) Manufacturer's product information may be found in Volume 2.

4-25. Electric Fuel Pump

- (A) Product: Stewart Warner; Model 325
- (B) Manufacturer's product information may be found in Volume 2.

4-30. Cooling

4-31. Water Strainer

- (A) Manufacturer: Perko

4-32. Water Pump

4-33. Coolant Sub-Tank

4-34. Coolant Lines

4-34.01 Seacock to Water Pump

4-34.02 Water Pump to Diesel

⇒ **Determine type and size of coolant lines**

4-40. Drive Train

4-41. Drive Shaft

- (A) 1-inch diameter, solid stainless steel.

-
- 4-42. Drive Train Connections
 - 4-42.01 Diesel Shaft Connection
 - 4-42.02 Through-Hull Packing Gland
 - 4-42.03 Shaft Propeller Connection
-

- 4-43. Propeller
 - (A) Material: Bronze
 - (B) Diameter and Pitch:

⇒ **IPY: Propeller alloy, diameter and pitch?**

4-50. Controls

- 4-51. Throttle and Gear Shift
 - 4-51.01 General:
 - (A) Product: Teleflex; CH1308
 - (B) Manufacturer's product information may be found in Volume 2.
 - 4-51.02 Components:
 - (A) Throttle Control Lever
 - (B) Throttle Warm-Up Selector Knob
 - (C) Throttle Cable Assembly
 - (D) Gear Shift Cable Assembly
-

- 4-52. Engine Display Panel
- 4-52.01 General:
 - (A) Product: Yanmar; Type B
 - (B) Manufacturer's product information may be found in Volume 2.
- 4-52.02 Components:
 - (A) Improper Charging Indicator Light
 - (B) Low Oil Pressure Indicator Light
 - (C) High Coolant Temperature Indicator Light

- (D) Three Blank Indicator Lights
- (E) Keyed Engine On Switch
- (F) Lamp Check Toggle Switch
- (G) Pushbutton Starter Switch
- (H) Engine Stop Warning Horn
- (I) Tachometer Gauge
 - i) Manufacturer: Teleflex
- (J) Fuel Level Gauge
 - i) Manufacturer: Teleflex
- (K) Coolant Temperature Gauge
 - i) Manufacturer: Teleflex
- (L) Engine Shut-Off Knob

5 CGA — Cabin, Galley and Accommodations

5-10. Finish Surfaces

- 5-11. Fiberglass Deck
 (A) For information on the construction of the fiberglass deck see 2-12 above.
 (B)
- 5-12. Fiberglass Bulkheads
 (A)
- 5-13. Teak and Holly Sole
 (A) Teak and Holly
- 5-14. Casework
 (A) Teak
- 5-15. Counters
 (A) Plastic Laminate

⇒ Need to add information on construction, products and care of all finish surfaces!

5-20. Ports and Hatches

- 5-21. Aluminum Ports
- 5-21.01 General:
 (A) Size: ~16-inches wide by 5-1/4-inches high opening.
 (B) Manufacturer: Bowmar
- 5-21.02 Locations:
 (A) Port V-Berth

- (B) Port Forward Salon
 (C) Port Mid Salon
 (D) Port Aft Salon
 (E) Starboard V-Berth
 (F) Starboard Head
 (G) Starboard Mid Salon
 (H) Starboard Aft Salon
 (I) Quarter-Berth Cockpit

5-22. Aluminum Hatches

- 5-22.01 V-Berth
 (A) Size: ~13 by 18 inches
 (B) Product: Lewmar; Superhatch Size 1
- 5-22.02 5-22.02 Head
 (A) Size: ~10 by 10 inches
 (B) Product: Lewmar; Superhatch Size 0

5-23. Teak Hatches

- 5-23.01 Cockpit Companionway Hatch
 Three teak boards, the center with a glass port.
- 5-23.02 Screen Companionway

5-30. Seating and Cushions

- 5-31. V-Berth
 (A) There are two cushions, symmetrical about the centerline. They are trapezoidal shaped.
 (B) Size: 5-inches at the narrow (forward) end, 41-1/2-inches at the wide (aft) end by 72-1/2-inches long.
- 5-32. Salon
- 5-32.01 Port Salon Forward

- (A) There is one cushion, trapezoidal shaped.
- (B) Size: 22-1/2-inches wide by 14-1/2-inches deep at the forward end and 19-1/2-inches deep at the aft end.

5-32.02 Port Settee

- (A) There are two cushions of slightly different widths, along with two cushion backs. The back cushions are mounted on fabric covered hardboard that sets behind the seat cushions.
- (B) Forward cushion size: 25-3/4-inches wide by 23-1/2-inches deep. The back cushion is 25-3/4-inches wide by 17-1/2-inches high.
- (C) Aft cushion size: 26-1/2-inches wide by 23-1/2-inches deep. The back cushion is 26-1/2-inches wide by 17-1/2-inches high. There is a 5-inch chamfer in the forward corner of the seat cushion.

5-32.03 Starboard Settee and Berth

- (A) There are three cushions of slightly different widths, along with three cushion backs. The back cushions are mounted on fabric covered hardboard that sets behind the seat cushions. These back cushions can be used to create a double berth by the dismantling of the companionway ladder and the extension of the settee base.
- (B) Forward cushion size: 25-3/4-inches wide by 24-1/2-inches deep. The back cushion is 25-3/4-inches wide by 17-1/2-inches high.

- (C) Center cushion size: 26-1/2-inches wide by 24-1/2-inches deep. The back cushion is 26-1/2-inches wide by 17-1/2-inches high.
- (D) Aft cushion size: 25-3/4-inches wide by 24-1/2-inches deep. The back cushion is 25-3/4-inches wide by 17-1/2-inches high.

5-33. Quarterberth

- (A) The Quarterberth is a single cushion with an irregular rectangle shape.
- (B) Size: Approximately 38-inches wide by 74-1/2-inches deep. There is a 6-inch chamfer in the forward corner. There is a rectangular cutout in the outboard forward corner of 3-inch deep by 23-1/2-inches long for the electrical cabinet. The aft portion of the cushion tapers in a curve following the hull from 38-inches wide to 21-inches wide at the top and from 35-inches wide to 8-inches wide at the bottom of the cushion.

5-34. Cockpit

5-34.01 Port Cockpit

5-34.02 Starboard Cockpit

5-34.03 Helm Seat

5-40. Storage

5-41. V-Berth

5-41.01 Forward Anchor Locker

- (A) Size: Approximately 27-inches lengthways by 36-inches wide at the aft end with a

center divider to within approximately 7-inches of the top.

- (B) Access: Access from two deck-pipes from above (see 2-62 above) and a 14 by 14-inch louvered hatch from the V-Berth.
- (C) Drains to bilge through large opening.
- (D) Use: Chain and rope rode for two anchors.

5-41.02 Forward Center Hold

- (A) Size: Approximately 42-inches lengthways by 54-inches wide at the aft end by 23-inches deep.
- (B) Access: 16-inches by 19-1/2-inches, under V-Berth cushions.
- (C) Drains to bilge through large opening.
- (D) Use: _____?

5-41.03 Forward Port Hold

- (A) Size: Approximately 31-inches lengthways by 28-inches wide at the aft end by 20-inches deep.
- (B) Access: 9-inches by 15-inches, under V-Berth cushions.
- (C) Drains to bilge through large opening.
- (D) Use: _____?

5-41.04 Forward Starboard Hold

- (A) Size: Approximately 30-inches lengthways by 20-inches wide at the aft end by 18-inches deep.
- (B) Access: 9-inches by 15-inches, under V-Berth cushions.
- (C) Drains to bilge through large opening.
- (D) Use: _____?

5-41.05 Forward Tank Hold

- (A) Size: Approximately 30-inches lengthways by 30-inches wide by 10-inches deep
- (B) Access: 30-inches square, under V-Berth cushions.
- (C) Drains to bilge.
- (D) Use: Fresh Water Tank (see 6-11 below) and Waste Tank (see 6-12 below).

5-41.06 Port Shelf

- (A) Size: Approximately 30-inches lengthways by 4-inches wide.
- (B) Use: V-Berth personal storage.

5-41.07 Starboard Shelf

- (A) Size: Approximately 30-inches lengthways by 4-inches wide.
- (B) Use: V-Berth personal storage.

5-42. Head

5-42.01 Head Hanging Locker

- (A) Size: Approximately 31-inches lengthways by 10-inches wide by 32-inches high.
- (B) Access: Louvered door over water closet.
- (C) Use: Foul weather gear and shower curtain.

5-42.02 Head Lower Locker

- (A) Size: Approximately 7-inches deep by 16-inches wide by 18-inches high with one shelf.
- (B) Access: Sliding door below lavatory
- (C) Use: Cleaning supplies and toiletries.

5-42.03 Head Drawer

- (A) Size: Approximately 9-1/2-inches deep by 11-inches wide by 1-1/2-inches deep.

- (B) Use: Toiletries.

- 5-43. Salon
- 5-43.01 Salon Port Cabinet
 - (A) Size: Approximately 23-inches lengthways by 7-inches deep by 27-inches high, with one shelf.
 - (B) Access: 15-1/2-inch by 18-1/2-inch louvered door.
 - (C) Use: Towels
- 5-43.02 Salon Port Locker
 - (A) Size: Approximately 48-inches lengthways by 8-inches deep (maximum) by 23-inches high.
 - (B) Access: Two 15-1/2 by 18-1/2-inch openings behind settee cushions.
 - (C) Use:
 - i) Forward: Flags, ensigns and bed linens
 - ii) Aft: Galley supplies
- 5-43.03 Salon Port Forward Hold
 - (A) Size: Approximately 47-inches lengthways by 20-inches wide by 8-inches high.
 - (B) Access: 9 by 15-1/2-inches under settee cushion.
 - (C) Drains to bilge through small opening.
 - (D) Use: Sail bags forward
- 5-43.04 Salon Port Aft Hold
 - (A) Size: Approximately 30-inches lengthways by 20-inches wide by 8-1/2-inches high
 - (B) Access: 9 by 15-1/2-inches under settee cushion.
 - (C) Drains to bilge through small opening.

- (D) Use: Engine maintenance and electrical parts in waterproof containers.
- 5-43.05 Salon Port Cabinet Shelf
 - (A) Size: Approximately 23-inches lengthways by 8-inches.
 - (B) Use: Books
- 5-43.06 Salon Port Shelf
 - (A) Size: Approximately 54-inches lengthways by 3-inches wide forward to 10-inches wide aft.
 - (B) Use:
- 5-43.07 Salon Starboard Locker
 - (A) Size: Approximately 77-inches lengthways by 3-1/2-inches deep forward to 8-1/2-inches deep aft by 24-inches high.
 - (B) Access: Two 15-1/2 by 18-1/2-inch openings behind settee cushions.
 - (C) Use:
 - i) Forward:
 - ii) Aft: Top-Climber and static line.
- 5-43.08 Salon Starboard Forward Hold
 - (A) Size: Approximately 37-inches lengthways by 24-inches wide by 8-inches high.
 - (B) Access: 9 by 15-1/2-inches under settee cushion and restricted 8-inch diameter port in double berth board.
 - (C) Drains from under head with large opening and to bilge and Salon Starboard Aft Hold (see 5-43.09 below) through small openings.

- (D) Use: Contains head drain seacock (see 2-20 above and through-hulls for speed log and depth gage (see 8-32.02 below).
- 5-43.09 Salon Starboard Aft Hold
- (A) Size: Approximately 39-inches lengthways by 24-inches wide by 8-inches high.
- (B) Access: 9 by 15-1/2-inches under settee cushion and restricted by double berth board.
Intend to place port or other opening in double-berth board.
- (C) Drains to bilge through small opening.
- (D) Use:
- 5-43.10 Salon Starboard Forward Shelf
- (A) Size: Approximately 31-inches lengthways by 6-1/2-inches wide forward and 8-1/2-inches wide aft
- (B) Use: Music
- 5-43.11 Salon Starboard Cabinet Shelf
- (A) Size: Approximately 14-1/2-inches lengthways by 10-inches wide.
- (B) Use: Winch handles and rigging supplies.
- 5-43.12 Salon Starboard Shelf Cabinet
- (A) Size: Approximately 14-1/2-inches lengthways by 10-inches wide by 8-inches high
- (B) Access: Horizontally hinged door.
- (C) Use:
- 5-43.13 Salon Starboard Aft Shelf

- (A) Size: Approximately 31-inches lengthways by 9-1/2-inches wide forward to 10-1/2-inches wide aft.
- (B) Use:
- 5-43.14 Salon Table Shelves
- (A) Size: Approximately .
- (B) Access: Lower salon table.
- (C) Use: Goblets
-
- 5-44. Quarter-Berth
- 5-44.01 Electrical Cabinet
- (A) Size: Approximately .
- (B) Access: Horizontally hinged panel
- 5-44.02 Electrical Locker
- (A) Size: Approximately
- (B) Access: Sliding door.
- (C) Use: Electrical supplies
- 5-44.03 Quarter-Berth Shelf
- (A) Size: Approximately .
- (B) Use: Quarter-Berth personal storage.
- 5-44.04 Quarter-Berth Holds
- (A) Size: Approximately .
- (B) Access:
- (C) Drains to bilge through small opening.
- (D) Use: Contains seacock inlet for engine and head (see 2-21 above).
-
- 5-45. Galley
- 5-45.01 Galley Shelves
- 5-45.02 Galley Counter Lockers
- 5-45.03 Galley Drawers
- 5-45.04 Galley Plate Racks

- 5-45.05 Galley Pot Cabinet
- 5-45.06 Galley Trash Cabinet

- 5-46. Cockpit
- 5-46.01 Port LPG Hold
- 5-46.02 Cockpit Port Hold
- 5-46.03 Cockpit Starboard Hold

5-50. Galley

- 5-51. Range
 - (A) Product: Force 10 Marine; Model 60120
 - (B) Manufacturer's product information may be found in Volume 2.

- 5-52. Range Fuel
 - 5-52.01 LPG Tank(s)
 - (A) Product: Trident Marine
 - (B) Manufacturer's product information may be found in Volume 2.
 - 5-52.02 LPG Regulator
 - (A) Manufacturer's product information may be found in Volume 2.
 - (B) Product: Trident Marine
 - 5-52.03 LPG Solenoid
 - (A) Product: Seaward Products; 70299
 - (B) Manufacturer's product information may be found in Volume 2.
 - 5-52.04 LPG Solenoid Control
 - (A) Product: Seaward Products
 - (B) Manufacturer's product information may be found in Volume 2.
 - 5-52.05 LPG Regulator to Solenoid Line

- (A) 3/8-inch with flair fittings
- 5-52.06 LPG Solenoid to Stove Line
 - (A) 3/8-inch with flair fittings

⇒ **Verify manufacture and product information on range fuel system.**

- 5-53. Icebox
- 5-53.01 Icebox Cover

⇒ **Determine the insulation (either R-Value or thickness and material) of the icebox.**

5-60. Canvas

- 5-61. Sails
 - 5-61.01 Staysail Cover
 - (A) Manufacturer: Potomac Sailmakers
 - (B) Sunbrella® Color 4610 Turquoise
 - 5-61.02 Mainsail Cover
 - (A) Manufacturer: Down East Canvas
 - (B) Sunbrella® Color 4610 Turquoise

- 5-62. Cockpit
 - 5-62.01 General:
 - (A) "Existing Sunbrella® Color 4610 Turquoise
 - (B) New Sunbrella® Color 4633 Linen"
 - 5-62.02 Dodger
 - (A) Down East Canvas
 - 5-62.03 Bimini
 - 5-62.04 Wheel Cover
 - (A) Down East Canvas

- 5-62.05 Instruments Cover
 - (A) Down East Canvas
- 5-62.06 Engine Panel Cover
 - (A) Down East Canvas

6 PLU — Plumbing

6-10. Tankage

- 6-11. Fresh Water Tank
 (A) Material: Welded Aluminum
 (B) Capacity: 31-gallons, US.
- 6-12. Waste Holding Tank
 (A) Material: Welded Aluminum
 (B) Capacity: 11-gallons, US.
- 6-13. Fuel Tank
 For information on the fuel tank see 4-21

6-20. Plumbing Lines

- 6-21. Sea Water Lines
 6-21.01 Seacock to Strainer
 6-21.02 Strainer to Diesel
 6-21.03 Seacock to Water Closet

⇒ Determine type and diameter of sea water lines.

- 6-22. Potable Water Lines
 6-22.01 Fresh Water Fill to Fresh Water Tank
 6-22.02 Fresh Water Tank to Vent
 6-22.03 Fresh Water Tank to Galley Hand Pump
 6-22.04 Fresh Water Tank to Water Pressure Pump
 6-22.05 Water Pressure Pump to Cold Water Manifold
 6-22.06 Cold Water Manifold to Water Heater
 6-22.07 Cold Water Manifold to Head Faucet
 6-22.08 Cold Water Manifold to Galley Faucet

- 6-22.09 Cold Water Manifold to Cockpit Shower
 6-22.10 Water Heater to Hot Water Manifold
 6-22.11 Hot Water Manifold to Head Faucet
 6-22.12 Hot Water Manifold to Galley Faucet

⇒ Determine type and diameter of potable water lines.

- 6-23. Waste Water Lines
 6-23.01 Water Closet to Wye Valve
 6-23.02 Wye Valve to Holding Tank
 6-23.03 Wye Valve to Seacock
 6-23.04 Waste Holding Tank to Pump-Out Connection
 6-23.05 Waste Holding Tank to Vent
 6-23.06 Head Lavatory to Drain
 6-23.07 Galley Sink to Drain
 6-23.08 Galley Icebox to Sump
 6-23.09 Anchor Locker to Sump
 6-23.10 Shower to Sump
 6-23.11 LPG Tank Compartment to Drain

⇒ Determine type and diameter of waste water lines.

- 6-24. Drain Lines
 6-24.01 Port Cockpit Scupper
 6-24.02 Starboard Cockpit Scupper
 6-24.03 Electric Bilge Pump to Drain
 6-24.04 Inlet Strainer to Manual Bilge Pump
 6-24.05 Manual Bilge Pump to Drain

⇒ Determine type and diameter of drain lines.

-
- 6-25. Fuel Lines
For information on fuel lines, see 4-23 above.
-

6-30. Valves

- 6-31. Seacocks
For information on Seacocks, see 2-21 above.
-

- 6-32. Faucets

- 6-32.01 Head Lavatory and Shower Faucet

(A) Grohe

- 6-32.02 Galley Faucet

(A) Grohe; Classic II

(B) Manufacturer's product information may be found in Volume 2.

- 6-32.03 Galley Hand Pump

(A) Imtra Fynspray; WS60V Caravan

(B) Manufacturer's product information may be found in Volume 2.

- 6-32.04 Cockpit Shower Head with Valve

⇒ Determine manufacturer and model of cockpit shower.

6-40. Equipment

- 6-41. Water Heater

(A) Attwood; EHM6-SM

(B) Manufacturer's product information may be found in Volume 2.

- 6-42. Water Pressure Pump

(A) Jabsco; Par-Max 2+

(B) Manufacturer's product information may be found in Volume 2.

- 6-43. Manifolds

- 6-43.01 Cold Water Manifold

- 6-43.02 Hot Water Manifold

⇒ Determine manufacturer and model (or at least material) of manifolds.

- 6-44. Fixtures

- 6-44.01 Head Lavatory

(A) Stainless Steel

- 6-44.02 Head Shower

(A) Fiberglass and Teak

- 6-44.03 Head Water Closet

(A) Raritan Engineering; PH-II

(B) Manufacturer's product information may be found in Volume 2.

- 6-44.04 Galley Sink

(A) Stainless Steel

⇒ Determine manufacturer and model of sinks.

7 ELE — Electrical

7-10. Shore Power

7-11. Shore Power Connection

7-11.01 Shore Power Jack

(A) Hubbell

7-11.02 30-Amp Shore Power Cable

(A) Hubbell

7-11.03 30-Amp to 20-Amp Adapter

(A) Marinco

7-12. Electrical Panel (AC Side)

7-12.01 General:

(A) See also 7-22 below.

(B) Lorco Marine

7-12.02 Components:

(A) AC Power Indicator

(B) Polarity Reverse Indicator

(C) Lamp Check Toggle Switch

(D) AC Main Breaker

(E) AC Outlets Breaker

(F) Water Heater Breaker

(G) Battery Charger Breaker

(H) Spare Breaker Position

7-13. Battery Converter Panel

(A) Product: Raritan Engineering; Crown II-F

7-14. AC Wiring

7-14.01 General:

All AC Wiring is 16-gauge, unless otherwise noted.

7-14.02 Shore Power Jack to Electrical Panel

7-14.03 Electrical Panel to Port GFI Outlet

7-14.04 Electrical Panel to Starboard GFI Outlet

7-14.05 Electrical Panel to Water Heater

7-14.06 Electrical Panel to Zinc Saver

7-14.07 Port GFI Outlet to Port Midship Outlet

7-14.08 Port Midship Outlet to Forward Outlet

7-14.09 Starboard GFI Outlet to Head Outlet

7-14.10 Zinc Saver to Battery Charger

⇒ Determine (or confirm) gauge of AC wiring

7-15. AC Equipment

7-15.01 For information on the water header see 6-41 above.

7-15.02 Zinc Saver

(A) Product: Yacht Corrosion Consultants

7-15.03 Battery Charger

(A) Product: Raritan Engineering; Crown II-F

(B) Manufacturer's product information may be found in Volume 2.

7-16. AC Outlets

7-16.01 Port Galley Outlet (GFI)

(A) Product: Leviton

(B) Manufacturer's product information may be found in Volume 2.

7-16.02 Port Midship Outlet

(A) Product: Leviton

7-16.03 Port Forward Outlet

(A) Product: Leviton

7-16.04 Starboard Salon Outlet (GFI)

- (A) Product: Leviton
 - (B) Manufacturer's product information may be found in Volume 2.
- 7-16.05 Starboard Head Outlet
- (A) Product: Leviton

7-20. Vessel Power

- 7-21. Batteries
- 7-21.01 Type: Group 27, AGM
- 7-21.02 Quantity: Two
- 7-21.03 Product: Seavolt; 8A27M
- (A) Specifications:
 - i) 810 MCA
 - ii) 580 CCA
 - iii) 92 Amp-Hours at 20 Hours
-
- 7-22. Electrical Panel (DC Side)
- 7-22.01 General See also 7-12 above.
- 7-22.02 Components:
- (A) Battery Selector Switch
 - (B) DC Power Indicator
 - (C) Battery Test Toggle Switch
 - (D) Battery Volt Meter
 - (E) Cabin Lights Breaker
 - (F) Running Lights Breaker
 - (G) Bow Light Breaker
 - (H) Masthead Light Breaker
 - (I) Foredeck Light Breaker
 - (J) Water Pressure Breaker
 - (K) Instruments Breaker

- (L) Communications Breaker (with temporary label)
- (M) DC Outlets Breaker (with temporary label)
- (N) Spare Breaker Position

⇒ **There are two unconnected wires as of 26 March. One is for the solenoid power, the other is not identified. The solenoid will be connected to the DC Outlets Breaker**

-
- 7-23. Bilge Pump Control Panel
- 7-23.01 Manufacturer: Johnson Pump Sweden
- 7-23.02 Components:
- (A) Bilge Pump Switch
 - (B) Bilge Pump Fuse
 - (C) Bilge Pump Indicator

-
- 7-24. High-Water Alarm Panel
- 7-24.01 General:
- (A) 2-31.02
 - (B) West Marine; WA201
- 7-24.02 Components:
- (A) High-Water Test Toggle
 - (B) High-Water Indicator
 - (C) High-Water Alarm Horn

-
- 7-25. DC Wiring
- 7-25.01 Battery Charger to Battery Bank
- 7-25.02 Battery Bank to Ground Bus
- 7-25.03 Battery One to Electrical Panel
- 7-25.04 Battery Two to Electrical Panel
- 7-25.05 Electrical Panel to Starter Motor
- 7-25.06 Electrical Panel to Starter Switch

- 7-25.07 Starter Switch to Starter
- 7-25.08 Starter Switch to Fuel Pump
- 7-25.09 Fuel Tank to Fuel Gauge
- 7-25.10 Electrical Panel to Port Galley Light
- 7-25.11 Port Galley Light to Port Aft Salon Light
- 7-25.12 Port Aft Salon Light to Salon Fan
- 7-25.13 Port Salon Fan to Port Forward Salon Light
- 7-25.14 Electrical Panel to Starboard Quarterberth Light
- 7-25.15 Starboard Quarterberth Light to Starboard Aft Salon Light
- 7-25.16 Starboard Aft Salon Light to Starboard Forward Salon Light
- 7-25.17 Starboard Forward Salon Light to Head Light
- 7-25.18 Electrical Panel to Vee-Berth Light
- 7-25.19 Electrical Panel to Engine Compartment Light
- 7-25.20 Electrical Panel to Bow Running Lights
- 7-25.21 Electrical Panel to Stern Running Light
- 7-25.22 Electrical Panel to Mast Bow (Steaming) Light
- 7-25.23 Electrical Panel to Masthead (Anchor) Light
- 7-25.24 Electrical Panel to Mast Foredeck Light
- 7-25.25 Electrical Panel to Water Pressure Pump
- 7-25.26 Electrical Panel to Bulkhead Instruments
- 7-25.27 Electrical Panel to Pedestal Instruments
- 7-25.28 Electrical Panel to VHF Radio
- 7-25.29 Electrical Panel to Entertainment Radio/CD Player
- 7-25.30 Electrical Panel to Salon DC Outlet
- 7-25.31 Electrical Panel to Companionway DC Outlet
- 7-25.32 Electrical Panel to Cockpit DC Outlet
- 7-25.33 Electrical Panel to Stove Fuel Solenoid

⇒ **Determine (or confirm) gauge of DC wiring.**

- 7-26. DC Outlets
 - 7-26.01 Salon DC Outlet
 - 7-26.02 Companionway DC Outlet
 - 7-26.03 Cockpit DC Outlet
-

7-30. Vessel Ground

- 7-31. Ground Bus
 - 7-32. Ground Wiring
 - 7-32.01 Starboard Chainplate to Ground Bus
 - 7-32.02 Forward Through-Hull Fitting to Aft Through-Hull Fitting
 - 7-32.03 Aft Through-Hull Fitting to Ground Bus
 - 7-32.04 Fuel Fill to Fuel Tank
 - 7-32.05 Fuel Tank to Diesel Engine
 - 7-32.06 Diesel Engine to Ground Bus
 - 7-32.07 Propeller Shaft Log to Rudder Shaft Log
 - 7-32.08 Rudder Shaft Log to Starboard Backstay Plate
 - 7-32.09 Starboard Backstay Plate to Ground Bus
-

⇒ **Determine gauge of ground wiring.**

7-40. Lights

- 7-41. Navigation Lights
- 7-41.01 Bow Port and Starboard Lights
 - (A) Product: Aqua Signal; Series 25 Classic 3518302
- 7-41.02 Stern Light

(A) Product: Aqua Signal; Series 25 Classic
3517702

7-41.03 Mast (Steaming) Light

(A) Product: Aqua Signal; Series 25 Classic
3106012

7-41.04 Masthead (Anchor) Light

(A) Product: Aqua Signal; Series 25 Classic
3513012

7-42. Exterior Lights

7-42.01 For information on the Mast Foredeck Light see
7-41.03 above.

7-43. Cabin Lights and Fans

7-43.01 Lights:

(A) Product: West Marine; Brass Berth Light

7-43.02 Fans:

(A) Product: Port Fan; Hotwire Enterprises.

8 INS — Instruments

8-10. Communications

- 8-11. VHF Radio
- 8-11.01 Radio:
- (A) Icom; IC-M502
 - (B) Manufacturer's product information may be found in Volume 2.
- 8-11.02 VHF Radio Remote Microphone
- (A) Icom; Command Mike II.
- 8-12. HF Radio (Future)
- (A) Icom IC-M802
- 8-13. Entertainment Radio/CD Player
- (A) Jenson; MCD5112
 - (B) Rear Speakers: West Marine; WM-8000 (WM Model 1193119) Stereo Box Speakers
 - i) Speakers are mounted each side of the helm seat.
 - ii) Left channel: green, positive; brown, negative
 - iii) Right channel: yellow positive; white, negative
 - (C) Manufacturer's product information may be found in Volume 2.

8-20. Engine Instruments

For information on engine instruments, see 4-52 above.

8-30. Navigation Instruments

- 8-31. Pedestal Mounted
- 8-31.01 Pedestal
- (A) Edson; 1-317-5
- 8-31.02 Compass
- (A) Aqua Meter; Prestige Class Gemini
- 8-31.03 GPS
- (A) Garmin; GPSMap 276C
- 8-31.04 Autopilot
- (A) Raymarine; WheelPilot Mk2+ E12053
- 8-32. Cockpit Bulkhead Mounted
- 8-32.01 Wind Speed and Direction
- (A) Raymarine; ST 60 Plus A22012-P
- 8-32.02 Depth and Speed
- (A) Raymarine; ST60 Plus A22013-P

8-40. Instrument Wiring

- 8-41. Engine
- 8-41.01 Fuel Tank to Fuel Gauge
- 8-41.02 Diesel Engine to Tachometer
- 8-41.03 Diesel Engine to Water Temperature Gauge
- 8-41.04 Diesel Engine to Engine Control Panel
- 8-42. Instrument Sensors
- 8-42.01 Wind Speed and Direction Sensor to Instrument
- 8-42.02 Water Speed Sensor to Network
- 8-42.03 Depth Sensor to Instrument
- 8-42.04 Fluxgate Compass to Autopilot
- 8-42.05 Rudder Sensor to Autopilot
- 8-42.06 Autopilot to Control Head

8-43.	Instrument Interconnections
8-43.01	GPS NEMA out to VHF Radio
8-43.02	Depth NEMA out to GPS NEMA in

8-44.	Antenna Cables
8-44.01	VHF Radio to Masthead Antenna

8-45.	Speaker Cable
8-45.01	Entertainment Radio/CD Player to Rear Speakers

9 OPS — Operations

9-10. Operational Checklists

9-11. Startup and Departure from HYY, Slip 820:

- (A) Verify dock lines are properly rigged.
- (B) Verify shore power cable is properly connected
- (C) Open cabin; uncover wheel and panels and stow covers.
- (D) Set AC Power to **ON**.
- (E) Set battery switch to **BOTH** and set battery charger to **ON**.
- (F) Pump bilge dry, if necessary, and set pump switch to **AUTOMATIC**.
- (G) Test High Water Alarm.
- (H) Stow gear properly.
- (I) Install proper map cartridge in GPS and set to **ON** and to **MARINE MODE**.
- (J) Set instruments to **ON**.
- (K) Set VHF radio to **ON** and to **CHANNEL 9**.
- (L) Unpack PFD's and stow for sailing; don inflatable PFD's.
- (M) Set Ensign and appropriate burgees.
- (N) Stow winch handles for sailing.
- (O) Uncover Mainsail and hank halyard; loose reefing lines.
- (P) Uncover Staysail and hank halyard; ensure sail straps are secure.
- (Q) Loose sheets to Genoa.
- (R) Check engine oil level and belt tension.

- (S) Set AC to **OFF**; disconnect shore power and properly stow.
- (T) Set batter charger to **OFF** and set battery switch to 1 for odd numbered days and 2 for even numbered days.
- (U) Set throttle to **NEUTRAL** and key to **ON**.
- (V) Start engine and verify cooling water is draining; log time
- (W) Loose leeward dock lines; loose windward dock lines.
- (X) Depart ahead slow.

9-12. Transition from power to sail and back:

- (A) Motor upwind; raise mainsail. Log time.
- (B) Lower centerboard to desired position. Log time.
- (C) If sailing broad reach, raise staysail. Log time.
- (D) Raise Genoa. Log time.
- (E) Set sail trim and centerboard for desired point of sail
- (F) Transmission to neutral, stop engine and log time.
- (G) Enjoy the sail!
- (H) Start engine and log time
- (I) Furl Genoa, lower staysail (if raised) properly flake and secure with ties.
- (J) Motor upwind; lower mainsail, properly flake and secure with ties.
- (K) Secure halyards; log time.
- (L) Raise centerboard fully; log time.
- (M) Cover staysail and mainsail.

-
- 9-13. Return and Securing to HYY, Slip 820:
- (A) Back into slip; come to dead stop at center of slip
 - (B) Properly rig windward dock lines; properly rig leeward dock lines..
 - (C) Stop engine and log time.
 - (D) Properly connect shore power cable; set AC Power to **ON**
 - (E) Set battery switch to **BOTH**.
 - (F) Pump bilge dry and set pump switch to **AUTOMATIC**; pump using manual pump, if necessary.
 - (G) Properly flake and cover staysail; secure halyard (if not already done).
 - (H) Properly flake and cover mainsail; secure halyard (if not already done).
 - (I) Secure Genoa sheets.
 - (J) Secure ensign and burgees.
 - (K) Rinse deck.
 - (L) Set instruments, radios and GPS, of **OFF**.
 - (M) Stow GPS and winch handles properly.
 - (N) Stow PFD's properly.
 - (O) Cover wheel and panels.
 - (P) Set all electrical switches to **OFF**.
 - (Q) Pack all gear.
 - (R) Close cabin.
 - (S) Verify dock lines are properly rigged.

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- 9-14. Anchoring Out:
- (A) Determine depth of anchorage; add 5-feet.
 - (B) Use 5:1 scope for attended anchorage; use 7:1 or greater scope for overnight anchorage.
 - (C) Layout required length of rode on deck; cleat appropriate length.
 - (D) Determine position considering swing; release from cradle when near anchorage position.
 - (E) Motor to neutral; drop anchor when in position.
 - (F) Slow reverse or drift to deploy rode.
 - (G) Reverse to set anchor.
 - (H) Set Anchor Light to **ON**, or raise day-shape.
-
- 9-15. Lifting Anchor:
- (A) Set Anchor Light to **OFF**, or lower day-shape.
 - (B) Engine in slow forward to retrieve rode.
 - (C) Lift to un-set anchor.
 - (D) Retrieve and wash anchor.
 - (E) Secure to cradle.
 - (F) Un-cleat and stow rode.

9-16. Securing to Transient Dock:

- (A) Secure transient dock lines to cleats; secure fenders, if desired.
- (B) Prepare appropriate shore power cable for use.
- (C) Determine best approach to slip; back into slip or follow desired approach.
- (D) Secure windward lines; secure leeward lines; secure spring lines.
- (E) Stop engine and log time.
- (F) Properly connect shore power cable; set AC Power to **ON**
- (G) Set battery switch to **BOTH**.
- (H) Pump bilge dry and set pump switch to **AUTOMATIC**; pump using manual pump, if necessary.
- (I) Properly flake and cover staysail; secure halyard (if not already done).
- (J) Properly flake and cover mainsail; secure halyard (if not already done).
- (K) Secure Genoa sheets.
- (L) Rinse deck.
- (M) Set instruments and GPS, of **OFF**.
- (N) Verify dock lines are properly rigged.

9-17. Departing Transient Dock:

- (A) Set instruments to **ON**.
- (B) Set VHF radio to **ON** and to **CHANNEL 9**, or to proper channel for cruise.
- (C) Unpack PFD's and stow for sailing; don inflatable PFD's.
- (D) Set Ensign and appropriate burgees.
- (E) Stow winch handles for sailing.
- (F) Uncover Mainsail and hank halyard; loose reefing lines.
- (G) Uncover Staysail and hank halyard; ensure sail straps are secure.
- (H) Loose sheets to Genoa.
- (I) Set AC to **OFF**; disconnect shore power and properly stow.
- (J) Set batter charger to **OFF** and set battery switch to 1 for odd numbered days and 2 for even numbered days.
- (K) Set throttle to **NEUTRAL** and key to **ON**.
- (L) Start engine and verify cooling water is draining; log time
- (M) Loose leeward dock lines; loose windward dock lines.
- (N) Depart ahead slow.

- 9-18. **Fueling:**
- (A) Secure transient dock lines to cleats and secure fenders on dock side.
 - (B) Determine best approach to dock; dock.
 - (C) Secure windward line; secure leeward line.
 - (D) Stop engine and log time.
 - (E) Prepare fuel overflow kit for use.
 - (F) Fuel.
 - (G) Cleanup as appropriate.
 - (H) Complete transaction.
 - (I) Set throttle to **NEUTRAL** and key to **ON**.
 - (J) Start engine and verify cooling water is draining; log time
 - (K) Loose leeward dock lines; loose windward dock lines.
 - (L) Depart ahead slow.

- 9-19. **Pumping Out Holding Tank:**
- (A) Secure transient dock lines to cleats and secure fenders on dock side.
 - (B) Determine best approach to dock; then dock.
 - (C) Secure windward line; secure leeward line.
 - (D) Stop engine and log time.
 - (E) Ensure water fill is tightly capped.
 - (F) Loose waste cap and pump out..
 - (G) Cleanup as appropriate.
 - (H) Complete transaction.
 - (I) Set throttle to **NEUTRAL** and key to **ON**.
 - (J) Start engine and verify cooling water is draining; log time
 - (K) Loose leeward dock lines; loose windward dock lines.
 - (L) Depart ahead slow.

9-20. Seasonal Checklists

9-21. Winter Checklist

9-21.01 1 G&S — General and Safety

- (A) Properly dispose of flares that are 5-years over expiration date.

9-21.02 2 HUL — Hull and Deck

- (A) Inspect through hull seacocks for “pink or blue” corrosion; close seacocks.
- (B) Clean and pump bilge.
- (C) In odd numbered years, inspect hull and repair as necessary. Repaint below waterline; wax above waterline.
- (D) In odd numbered years, inspect rudder, and centerboard and cable.
- (E) In even numbered years, inspect and tighten stuffing box.

9-21.03 3 SRS — Spars, Rigging and Sails

- (A) Remove sails and covers; secure running rigging.
- (B) In odd numbered years service the winches.
- (C) Inspect standing rigging:
 - i) Chainplates should be aligned with turnbuckles, stays and shrouds.
 - ii) There should be no signs of leaking around chainplates.
 - iii) Terminal fittings should be free of crakes, bends and rust.
 - iv) Turnbuckles should be lubricated enough to turn freely.

- v) There should not be strands of broken wire in the rigging.
 - vi) There should not be signs of galvanic corrosion at base of mast or where winches, cleats and other appurtenances are attached.
 - vii) Rivets or screws should not be missing from fittings.
 - viii) There should not be rust or corrosion at welds.
 - ix) Spreaders should bisect the shrouds at equal angles.
 - x) Spreader ends should be properly secured to the shrouds.
 - xi) Spreader ends should be protected to avoid chafing the sails.
 - xii) Cotter pins should be taped.
 - (D) Inspect sail covers for excessive wear.
- #### 9-21.04 4 PWR — Auxiliary Propulsion
- (A) Fill fuel tank; add biocide.
 - (B) Change oil and oil filters.
 - (C) Inspect transmission fluid and change if necessary.
 - (D) Change freshwater engine coolant.
 - (E) Winterize diesel engine.
- #### 9-21.05 5 CGA — Cabin, Galley and Accommodations
- (A) In odd numbered years, disconnect and remove LPG fuel canisters. In even numbered years, inspect tanks and connections.
 - (B) Inspect teak and refinish as necessary.

- 9-21.06 6 PLU – Plumbing
 - (A) Pump-out waste tank.
 - (B) Drain potable water system; disconnect water heater and drain.
 - (C) Winterize potable water system.
- 9-21.07 7 ELE – Electrical
 - (A) Ensure batteries are fully charged.
- 9-21.08 8 INS – Instruments
 - (A) Remove speed log impeller and depth sensor; replace with plugs.
- 9-21.09 9 OPS – Operations
 - (A) In September of odd numbered years, schedule haul-out for early December.

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- 9-22. Spring Commissioning Checklist
 - 9-22.01 1 G&S – General and Safety
 - (A) Properly affix regulatory decal.
 - (B) Obtain Courtesy Vessel Examination
 - (C) Inspect PFD's, including Life-Sling.
 - (D) Inspect horns and signaling devices.
 - (E) Inspect flares and ensure within expiration date.
 - (F) Inspect fire extinguishers and loosen powder.
 - 9-22.02 2 HUL – Hull and Deck
 - (A) In even numbered years haul and clean hull and propeller; inspect and replace, if necessary, zincs; inspect through-hull fittings. Wax hull if required.
 - (B) Inspect through hull seacocks for “pink or blue” corrosion; open valves and verify that appropriate wood plugs are nearby.
 - (C) Inspect and adjust, if necessary, propeller shaft stuffing box.
 - (D) Lubricate steering gears.
 - (E) In even numbered years, clean bilge and replace absorbent pad. In odd numbered years, replace absorbent pad.
 - (F) Clean and wax decks.
 - (G) Inspect ground tackle.
 - (H) Inspect lifelines.
 - 9-22.03 3 SRS – Spars, Rigging and Sails
 - (A) Inspect running rigging:
 - i) Lines should be free of fraying.
 - ii) Blocks should be free turning.

- (B) Re-rig and cover sails.
- 9-22.04 4 PWR — Auxiliary Propulsion
 - (A) Inspect engine zincs in fresh water heat exchanger.
 - (B) In even numbered years, change the impellor in the raw water pump.
 - (C) Inspect and replace, if necessary, fuel filter.
 - (D) Inspect, clean or replace, if necessary, air filter.
- 9-22.05 5 CGA — Cabin, Galley and Accommodations
 - (A) Remove, clean and air cushions.
 - (B) Clean surfaces; replace cushions.
 - (C) In odd numbered years, replace LPG fuel canisters and properly connect.
- 9-22.06 6 PLU — Plumbing
 - (A) Re-connect water heater line.
 - (B) Fill and flush water tank.
- 9-22.07 7 ELE — Electrical
 - (A) Inspect batteries.
 - (B) Charge batteries.
 - (C) Verify proper operation of navigation lights.
- 9-22.08 8 INS — Instruments
 - (A) Replace speed log and depth sensors; verify proper operation of instruments.
 - (B) Perform radio check.
- 9-22.09 9 OPS — Operations
 - (A) In odd numbered years, launch boat after winter lay-up (should be scheduled for mid March).

- 9-23. Pre-Cruise Checklist
- 9-23.01 1 G&S — General and Safety
 - (A) Ensure float plan filed.
- 9-23.02 2 HUL — Hull and Deck
 - (A) Ensure dock lines for transient slips properly stowed.
 - (B) Ensure fenders are stowed for transient docks or slips.
- 9-23.03 4 PWR — Auxiliary Propulsion
 - (A) Ensure adequate supplies of fuel are onboard.
- 9-23.04 5 CGA — Cabin, Galley and Accommodations
 - (A) Ensure adequate provisions are onboard.
 - (B) Ensure water tank is filled and waste tank has capacity for anticipated cruise.
- 9-23.05 8 INS — Instruments
 - (A) Ensure GPS map cartridge covers anticipated cruise.
- 9-23.06 9 OPS — Operations
 - (A) Ensure up-to-date charts are onboard for anticipated cruise area.