



Selecting the Right Equipment for Your New or Used Trawler



Thursday, May 15 | 2:30 – 4:30 PM

Welcome to 2025 Trawlerfest Annacortes, Washington



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Introduction

- About the Presenters
- Overview
- Selecting the Right Equipment



Agenda

- The Big Picture
- Mission Statements
- Navigation Electronics
- Navigation Systems
- Reliable Propulsion
- Fuel Systems
- Sea Water Systems
- Power Systems
- Electrical System
- Watermakers, etc.
- Stabilizers
- Thrusters & Maneuverability
- Dinghy Systems
- Windlasses & Anchors
- HVAC & Heating
- Galley Equipment
- New vs. Used Considerations
- Case Studies
- Final Takeaways
- Questions & Discussion

The Big Picture

- **Goals:** Safety, efficiency, reliability
- No single point failures
- Overview of core systems
- Integration and maintenance considerations



Creating a Mission Statement

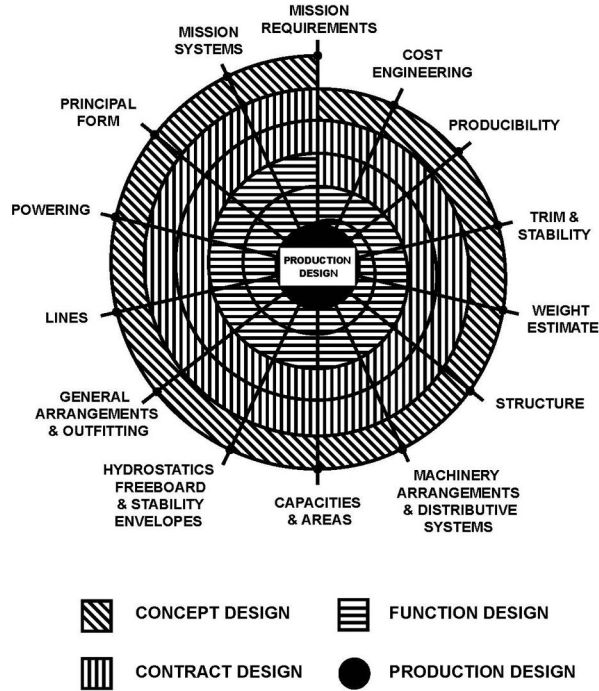
- *How are you going to use the boat?*
- *What? Where? When? With Who?*



Creating a Mission Statement

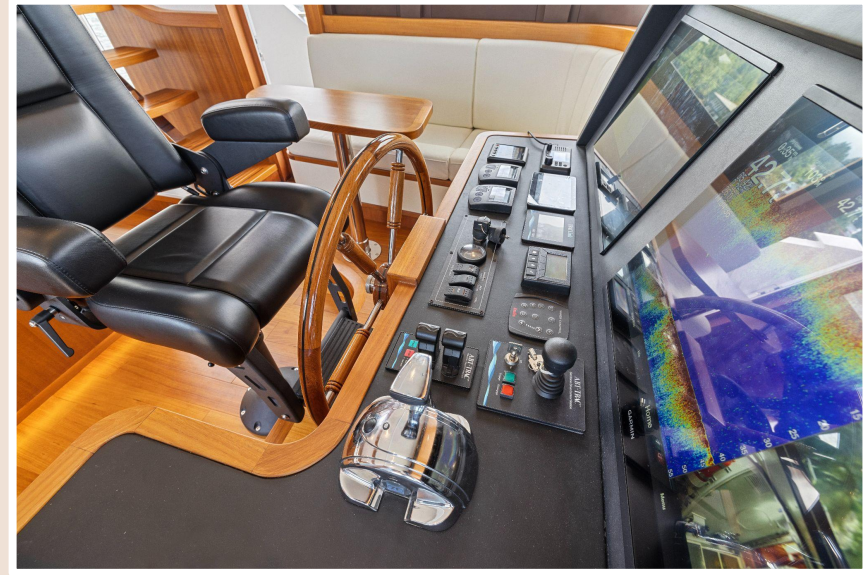
Determines:

- Hull
- Size
- Power
- Layout
- Equipment
- Etc.



Navigation Electronics

- Navigation WOW factor VS the Human Factor.



Cool... Right.....??

We need to remember the **Human** factor.
This bridge has 3 rested professionally trained personnel.



Simple Systems for Navigation

- Selecting systems that are designed around small and highly fatigued crews.
- Logical placement and separation of controls and information
- Similar operating systems
- Flybridge displays slaved so the information is in the same place and format



Basics of Reliable Propulsion

Fuel

Air

Water

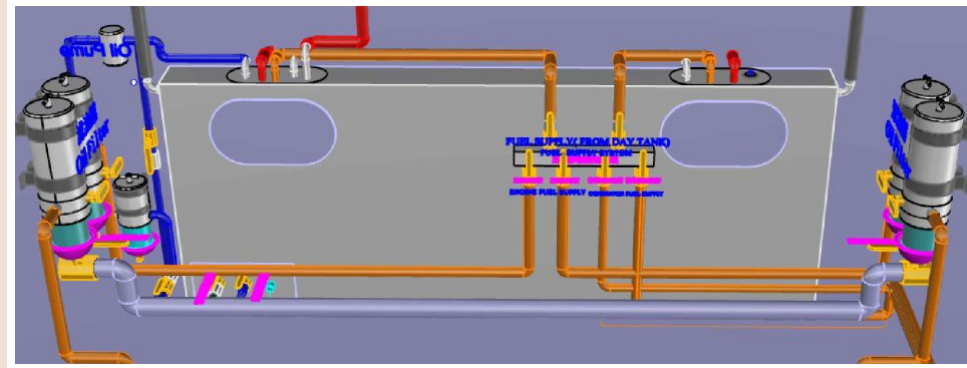
Electricity

Control

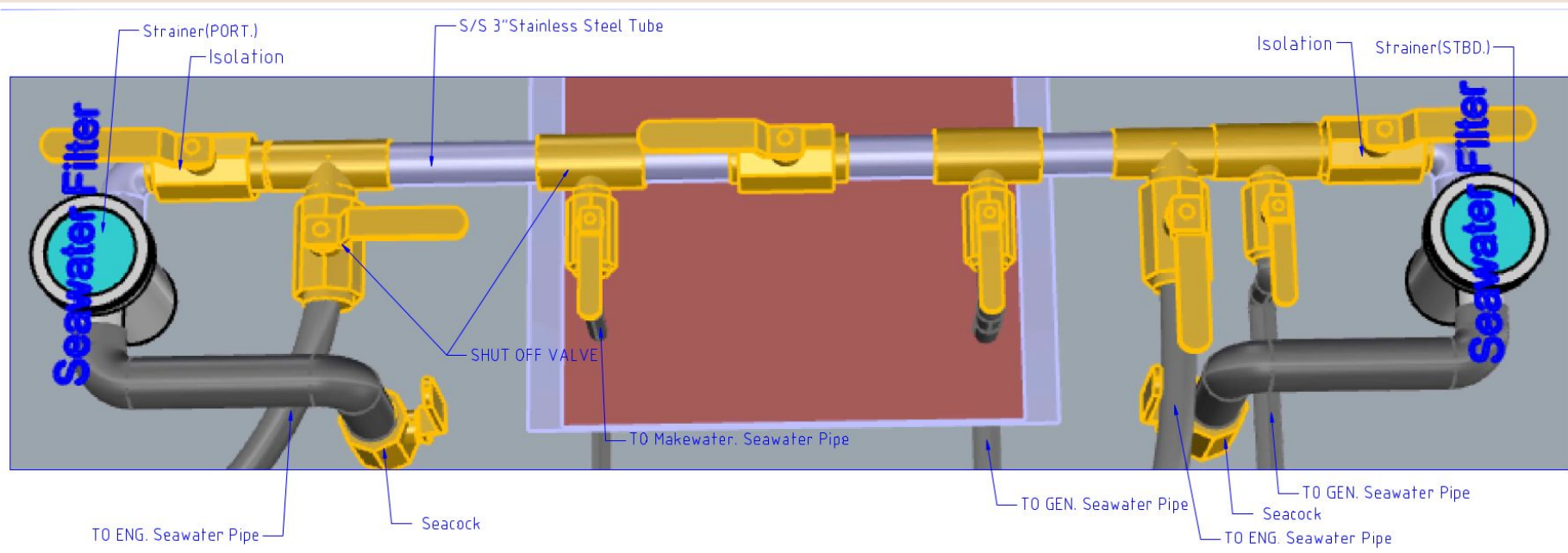


Fuel Systems

- Importance of clean fuel
- Transfer systems and filtration
- Bunkering in less than ideal locations
- Day Tanks:
 - Benefits: Cleaner fuel, gravity feed to engine
 - Monitoring levels and automated refill, **minimum day tank size in running hours.**
 - Common configurations on passagemakers
- Tank inspection and upgrades



Sea Water Systems

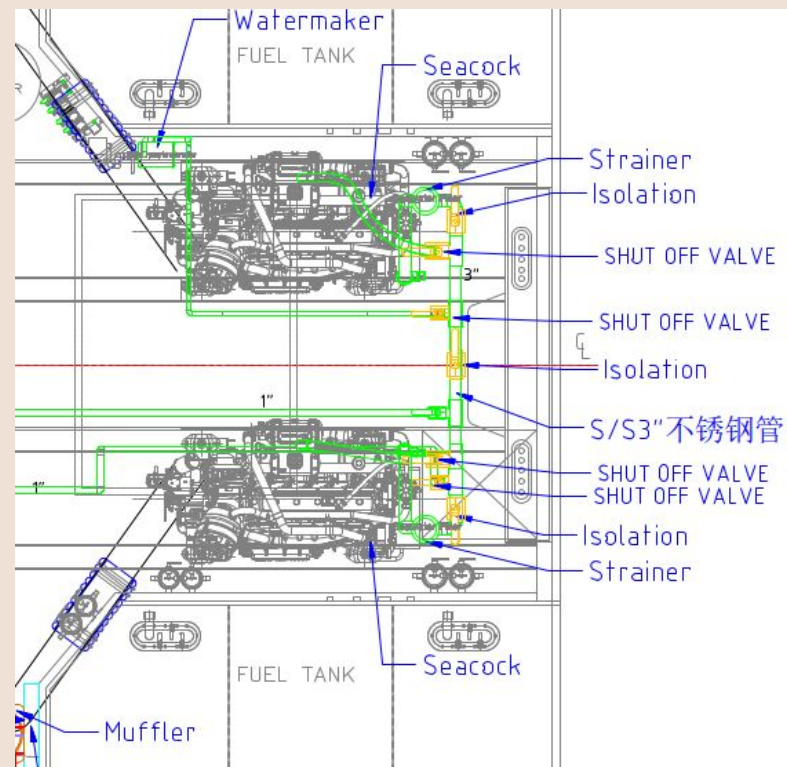


Sea Water Systems

Reducing Thru Hull Penetrations

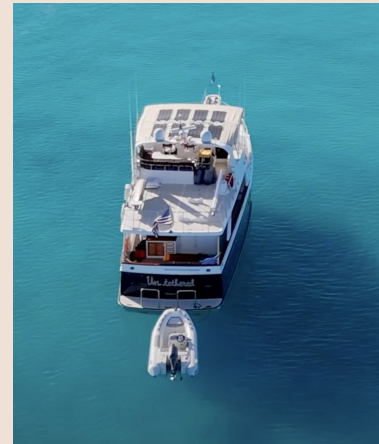
Reducing Complexity

Reducing Maintenance

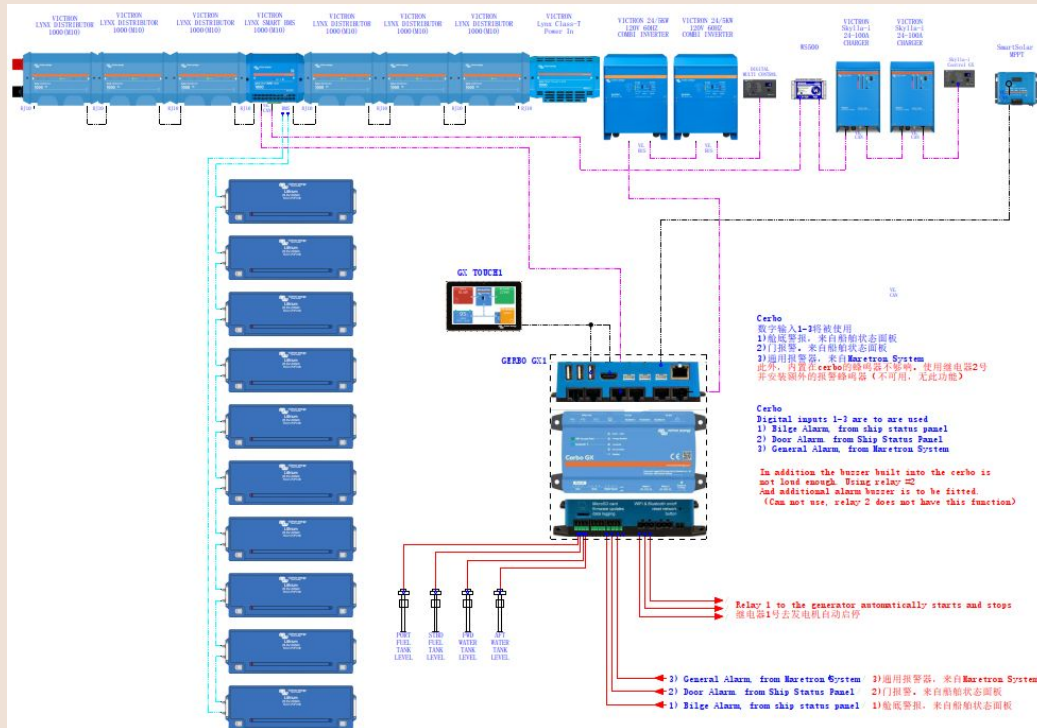


Power Systems

- Solar panels: Benefits and limitations
- Lithium batteries: Advantages and safety
- Generators: Sizing and redundancy and Usage
- Main Engine Alternators, Sizing and Effective RPM.



Power Systems



Electrical System Power Budget

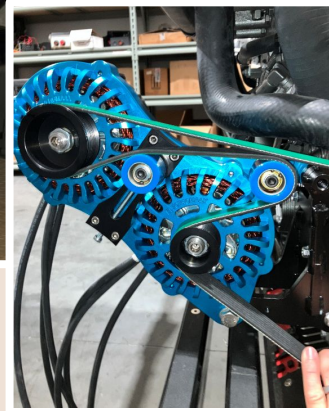
Power Budget ADJUST ONLY GREEN CELLS							
-3590		Power Reserve in Watt Hours					
Power Reserve							
Number of Batteries	Capacity of Battery	Voltage	Capacity Watt Hours	DOD %	Usable Power Watt Hours	Conversion Loss to AC	AC Usable Power wHr
6	300	25.6	46080	0.7	32256	0.90	29030
AH Total		1800					
Draw							
32620							
Item	Amps	Duty Cycle	Watts	Number	Hours of use	Watt Hours	Totals
HVAC							Chiller Plant
Chiller VX72 High	17.8	1	4895	1	0	0	12870
Chiller VX72 Medium	11.5	1	3163	1	0	0	
Chiller VX72 Low	7.8	0.75	1609	1	8	12870	
							Pumps
Chiller Pump WBL1500	1.21	1	333	1	8	2662	4659
Seawater Pump WBL1500	1.21	0.75	250	1	8	1997	
							Fancoils
Fancoil A4	0.6	0.5	83	0	8	0	3300
Fancoil A5	0.5	0.5	69	0	8	0	
Fancoil A9	0.6	0.5	83	0	2	0	
Fancoil A12	0.7	0.5	96	1	8	770	
Fancoil A18	1	0.5	138	1	8	1100	
Fancoil A24	1.3	0.5	179	1	8	1430	
Fancoil A36	2.1	0.5	289	0	0	0	
Refrigeration							Refrigeration
Freezer			150	1	8	1200	6000
Fridge			150	2	8	2400	
Icemaker			100	1	8	800	
Bar Fridge			100	2	8	1600	
24V Lights							Lighting
Anchor Light	0.2	1	5	1	8	38	1022
Deck Lights	1	1	24	2	8	384	
Interior Lights	0.5	1	12	10	5	600	
Navigation							Navigation
22 inch MFD	3	0	100	2	8	1	769
Radar Scanner	7	0	0	1	8	0	
Transducer	3	1	72	1	8	576	
DSM570	1	1	24	1	8	192	
Stabilizers							Stabilizers
			500	1	8	4000	4000



Electrical System Choices

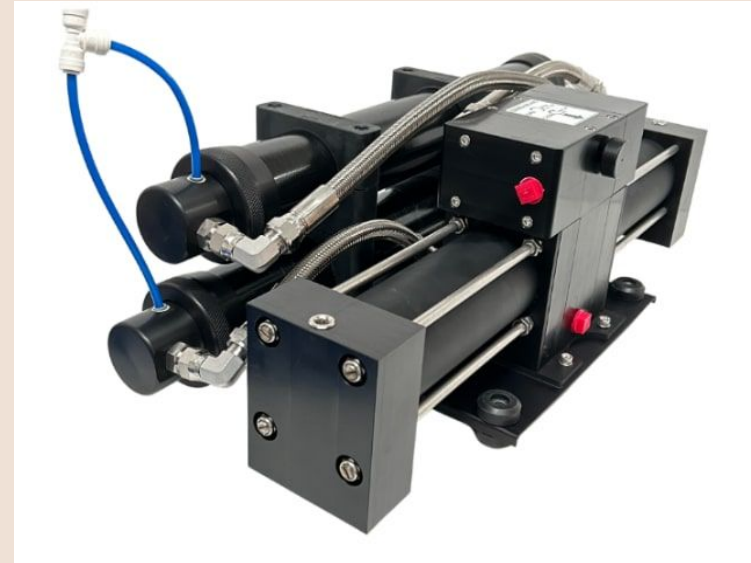


- AC vs. DC loads
- Inverters and chargers
- Shore power considerations



Watermakers & Freshwater Management

- Necessity based on cruising plans
- Output, energy draw, maintenance.
Low power vs high capacity.
- Pre filtration options, Sand Filters, Washable Filters, Plankton Filters.
- Backup water storage options.
The Need for multiple tanks.



Stabilizers

- Hydraulic vs. electric
- Fin design - high vs. low speed fins
- Active fins vs. gyros
- Suitability for vessel and cruising plans
- Service intervals and retrofit considerations



Thrusters & Maneuverability

- Bow and stern thrusters:
Electric vs. hydraulic
- Docking ease vs. complexity
- Integration with joystick control systems



Thrusters & Maneuverability



Davits and Dinghy Systems

- Importance of reliable launch/retrieval systems
- Electric vs. hydraulic davits
- Weight and capacity considerations
- Storage options: Deck, swim platform, custom mounts



Davits and Dinghy Systems



Windlasses and Anchor Setups

- Sizing windlass and anchor properly
- Chain vs. rope rode
- Remote controls and redundancy
- Popular brands and reliability tips. SHP Vs HHP



HVAC Systems & Heating Solutions

- Air conditioning needs by cruising region
- Reverse cycle vs. standalone heat sources
- Diesel heaters for cold climates
- Power draw and generator considerations



Washer/Dryer and Galley Equipment

- Compact and marine-rated laundry units
- Power and venting needs, Especially fridges.
- Galley: Induction vs. propane, refrigeration sizing
- Efficiency vs. convenience



New vs. Used Boat Considerations

- Upgrading older systems
- Prioritizing during refits
- Budgeting tips and ROI reality



Real-World Case Studies

- Examples of equipment selection successes and challenges
- Lessons learned from real installations



Final Takeaways

- Prioritize safety, simplicity, and serviceability
- Holistic thinking for system integration
- Create a Mission Statement
- Evaluating needs vs. latest tech trends



Questions & Discussion

- Open Q&A session
- Sharing resources and support options

