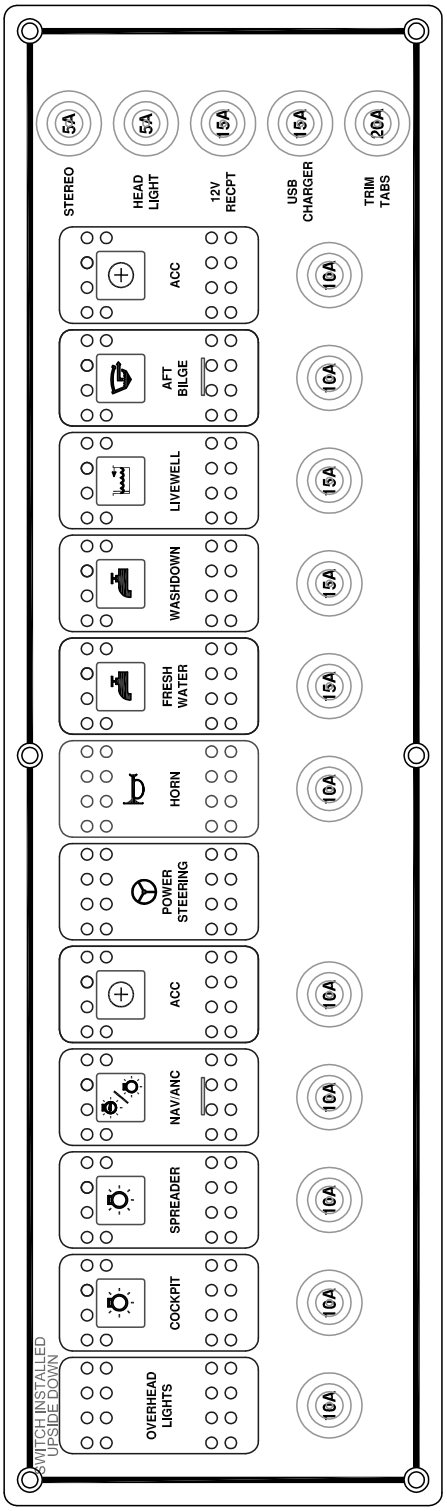
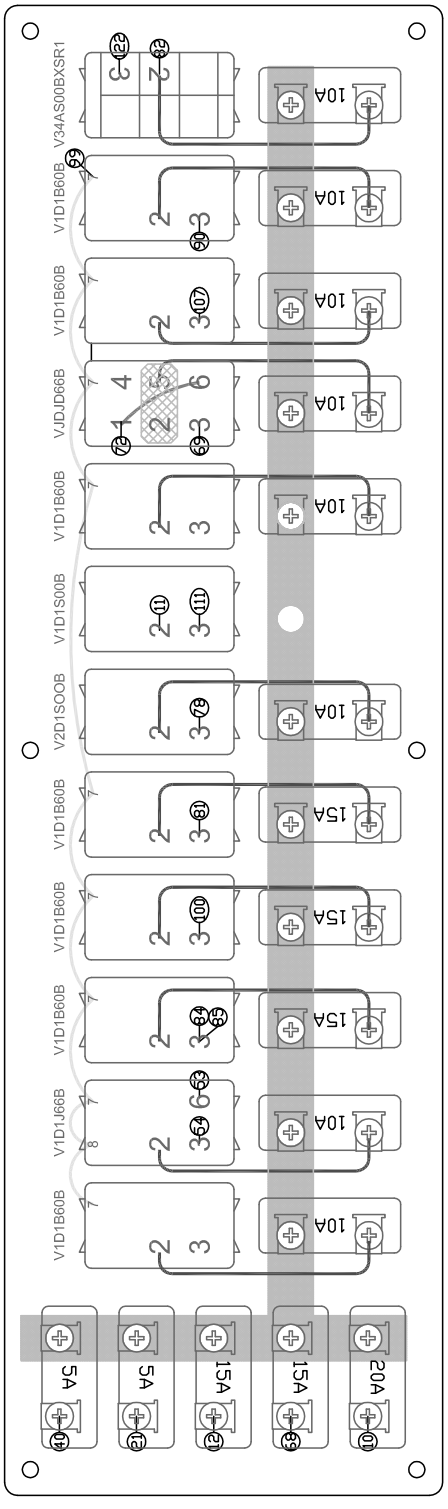

SWITCH INSTALLED UPSIDE DOWN
OVERHEAD LIGHTS
COCKPIT
SPREADER
NAV/ANC
ACC
POWER STEERING
HORN
FRESH WATER
WASHDOWN
LIVEWELL
AFT BILGE
ACC
STEREO
HEAD LIGHT
12V RECPT
USB CHARGER
TRIM TABS
5A
5A
15A
15A
20A
10A


V1D1B60B
V1D1J66B
V1D1B60B
V1D1B60B
V2D1SOOB
V1D1S00B
V1D1B60B
VJDJD66B
V1D1B60B
V1D1B60B
V34AS00BXSR1
5A
5A
15A
15A
20A
10A
15A

LAY OUT OF THE 12V LIGHTS AND APPLIANCES

REF	DESCRIPTION	FUNCTION ON PANEL
1	Bicolour Bow Navigation Light	Navigation Lights
10	White Stern Navigation Light	Navigation Lights
4	Mooring Light	Mooring Light
5	Steaming Light	Steaming Light
30	Ceiling Light	Cabin Lights
31	Reading Light	Cabin Lights
32	Reading Light	Cabin Lights
33	Reading Light	Cabin Lights
34	Reading Light	Cabin Lights
35	Ceiling Light	Cabin Lights
36	Reading Light	Cabin Lights
37	Reading Light	Cabin Lights
38	Ceiling Light	Cabin Lights
39	Reading Light	Cabin Lights
40	Ceiling Light	Saloon Lights
41	Ceiling Light	Saloon Lights
42	Reading Light	Saloon Lights
43	Ceiling Light	Saloon Light
44	Ceiling Light	Saloon Light
46	Neon Tube	Galley Lights
47	Ceiling Light	Galley Lights
50	Ceiling Light	Bathroom Lights
51	Ceiling Light	Bathroom Lights
52	Neon Tube	Bathroom Lights
60	Cockpit Lights	Saloon Lights
9	Compass Lights	Instrument Lights
13	Water Pump	Water Pump
14	Bilge Pump	Bilge Pump
11	Fridge	Fridge
162	Shower Pump	Comfort

12V FUNCTIONS

REF	FUNCTION	AMPERAGE (Amp)
A	Navigation Light	10
B	Mooring Light	5
C	Steaming Light	5
D	Deck Light	10
E	Cabin Lights	10
F	Saloon Lights	10
I	Water Pump	10
J	Bilge Pump	10
K	Fridge	10
M	Navigation	10
N	VHF/HIFI	10
O	Spare 1	10
P	Comfort 2	16

110/220V FUNCTIONS

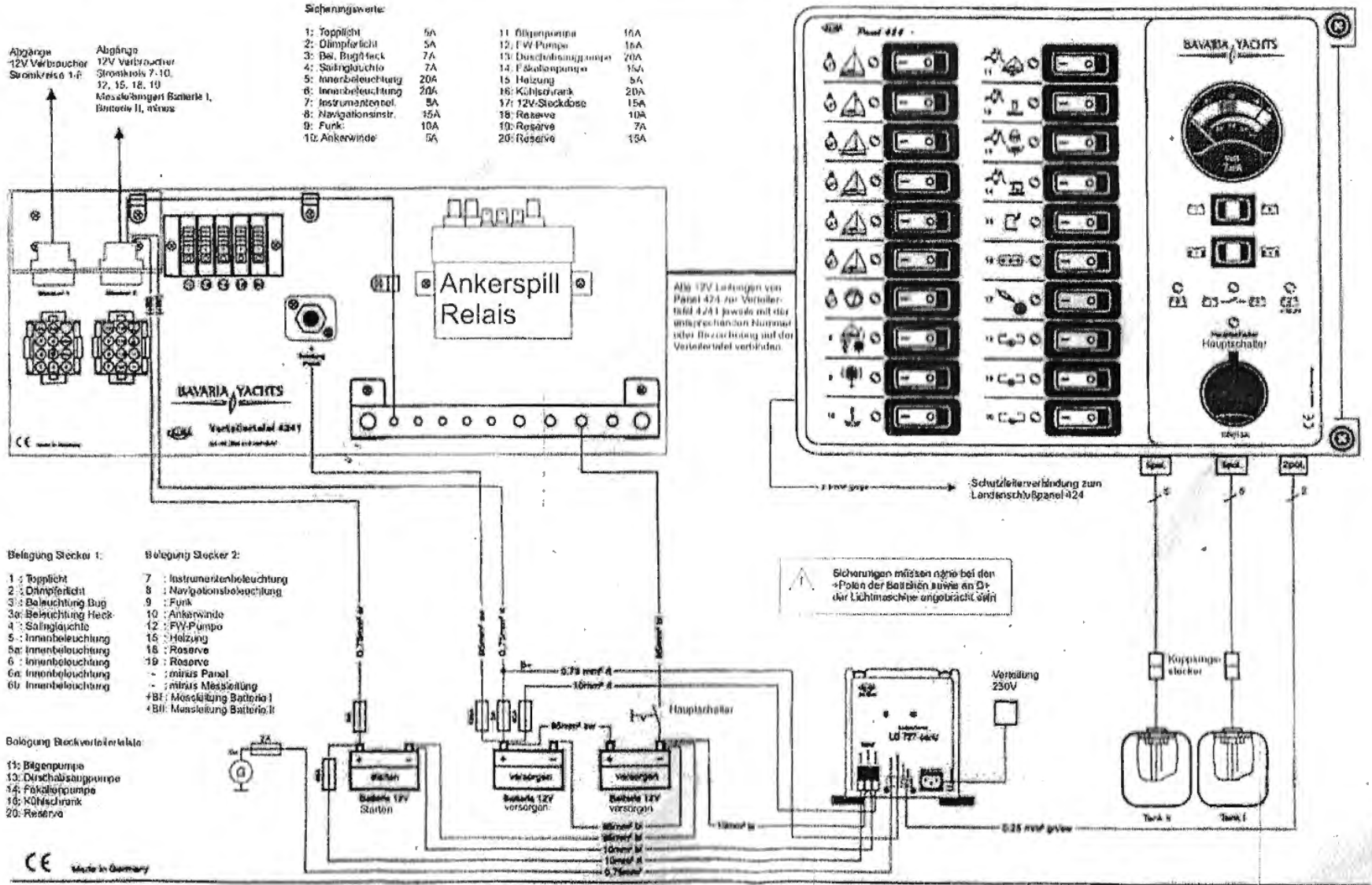
REF	FUNCTION	AMPERAGE (Amp)
R	Battery Charger	16
S	220V Socket	10
T	Boiler	10

CALIRA

Anschlußplan *Panel 424* / Verteilertafel 4241

BAVARIA YACHTS

Art.-Nr. E08 012 424/BAV
Art.-Nr. E08 012 4241BAV



DANGER

EXTREME HAZARD

Carbon monoxide (CO) gas is colorless, odorless and extremely dangerous. All engines and fuel-burning appliances produce CO as exhaust. Direct and prolonged exposure to CO will cause brain damage or death.

4.3 12-Volt DC Switches

Helm Switches

There are a number of switches on the helm. For any of the switches to function, the corresponding circuit breaker on the DC MDP must be switched ON.

Horn

Activates the boat horn.

Panel Lights

Activates the back lighting feature of the helm switch panel, leaning post port side panel and the port and starboard bow seating backrest actuator panels.

Nav/Anc Lights

Activates the navigation lights when the top of the rocker switch is pressed; activates the anchor light when the bottom is pressed.

Tow

For use only when this vessel is being towed by another. Activates steaming (masthead) and stern lights without illuminating the running lights.

Spreader Lights

Activates the flood lights located on the hardtop.

Overhead Lights

Activates the lights mounted underneath the hardtop. Pressing once activates the red lights; pressing again turns on bright white lights; pressing a third time provides blue lighting. If lights get out of sequence, depress the switch, and hold for two seconds.

Cockpit Lights

Activates lights to illuminate the cockpit area.

Mid-level Lighting

Activates the multi-color cockpit accent lights. The panel to control the accent lights is located on the starboard side of the helm seat base. Press the power button in the center of the panel to turn the lights ON. Preset colors for red, green, blue, and white are on the bottom of the panel. The buttons across the top control preset light changing patterns. The preset functions are slow fade, fast fade, slow strobe, and fast strobe.

Underwater Lights (Optional)

Activates the underwater lights. Use these lights only when the boat is in the water since they rely on water for cooling.

ACC

Unassigned and reserved for user-installed accessories. DO NOT install a component with an operating current that exceeds 10 amps (12V DC).

Fwd Bilge

Activates the forward bilge pump. If the pump activates automatically, the automatic bilge pump indicator on the switch will light.

Aft Bilge

Activates the aft bilge pump. If the pump activates automatically, the automatic bilge pump indicator on the switch will light.

Wiper

Activates the windshield wiper. The center position is OFF, the top position is low speed, and the bottom position is high speed.

Washer

Activates the windshield washer. The fresh water system must be on to operate the washer.

Fresh Water

Activates the fresh water pump.

Windshield Vent

Activates the electric actuator used to open the windshield vent. Depressing the top of the switch will open the vent. To close, depress the bottom of the switch.

Windlass Deploy/Retrieve

Deploys the anchor by depressing the top of the switch. To retrieve the anchor, depress the bottom of the switch. Refer to the windlass information in section 7, Exterior Equipment.

Unassigned and reserved for user-installed accessories. DO NOT install a component with an operating current that exceeds 10 amps (12V DC).

ACC

Unassigned and reserved for user-installed accessories. DO NOT install a component with an operating current that exceeds 10 amps (12V DC).

Sunshade (Optional)

Activates the optional sunshade.

Port Cockpit Switch Panel

Cockpit Lights

Activates the white cockpit deck courtesy lights.

Livewell

Activates the livewell circulating pump to supply water to the livewell. The pump is protected by a circuit breaker on the DC MDP and an automatically resetting breaker in the pump motor.

Fishbox – Port

Activates the diaphragm discharge pump for the port fishbox.

Fishbox – Stbd

Activates the diaphragm discharge pump for the starboard fishbox.

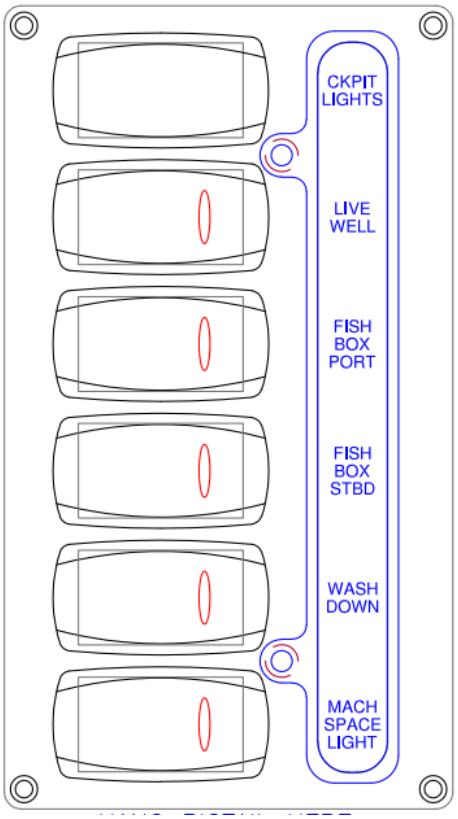
Washdown

Activates the raw water pump for the deck speed tap fittings. The fittings are in the anchor locker, aft upper corner of the starboard coaming box, and aft starboard cockpit adjacent to the boarding door. The pressure-demand pump is protected by a circuit breaker on the DC MDP and an automatically resetting breaker on the pump motor. Refer to section 5, Plumbing Systems, for more information on the livewell and washdown systems.

Machinery Space Light

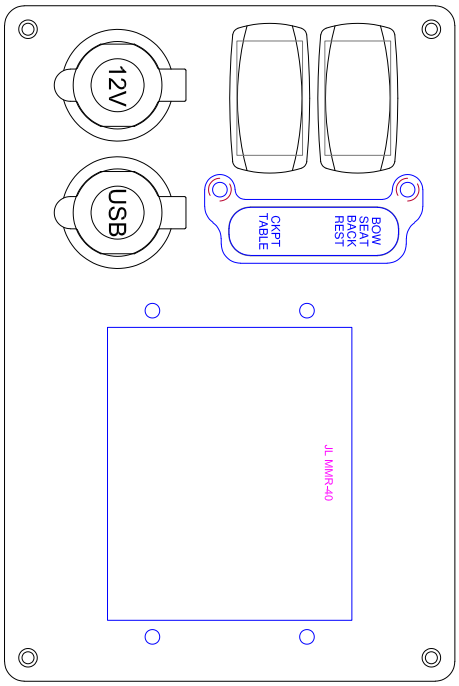
Activates the light in the aft machinery space.

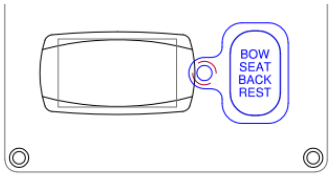
3300235 S4 PORT COCKPIT SWITCH PANEL



Port Cockpit Switch Panel

3300230 S4 PORT BOW SWITCH PANEL (FACE)





Starboard Bow Seating Switch Panel

Port Bow Seating Switch Panel

Bow Seating Backrest

Activates the backrest for the port bow forward facing seat. There is a corresponding switch on the starboard side that controls the backrest for the starboard bow forward facing seat.

Cockpit Table

Activates the electric motor used to raise and lower the bow table. Depressing the switch forward raises the table. Depressing the switch aft will lower the table to the recessed deck position.

Cabin Switch Panel

There is one main cabin lighting switch panel. It is in the port cabin window valence upon entering the cabin. The panel has two switches. One switch is for the cabin overhead lights. The second switch is for the cabin accent lights. The lower MDP cabinet also houses a USB charger and a 12-Volt outlet.

Head Switch Panels

There is one head lighting switch panel. It is located on the head sink vanity cabinet below the countertop. It is close to the head door

opening. The panel has two switches. One switch is for the head overhead light. The second is for the head accent light.

The holding tank monitor panel is located on the starboard outboard wall of the head. It has an indicator on the panel to display the waste holding tank level. There is also a key switch and momentary switch to activate the macerator pump and turn it on.

Holding tank monitor

4.4 AC System

Make sure the AC ground system is functioning properly and a proper connection exists between the shore power cord and power inlet, the boat bonding system and the outlet ground circuits. If there is any doubt about the integrity of the ground circuit, disconnect the AC, contact a qualified marine electrician and repair.

To reduce the risk of electrical shock, avoid contacting the shore cable or making a connection to a live shore outlet, especially in wet conditions. DO NOT spray water on electrical cables while washing down decks

The AC electrical system operates on a 120-volt, 30 amp, 60 cycle system. Models with CE designation; operate on a 230-volt, 16 amp, 50 cycle system.

The AC system is powered by the shore power, or by the optional generator. Your boat is equipped with an isolation transformer. The isolation transformer maintains correct AC polarity regardless of the polarity of the shore power supply and eliminates the need for a galvanic isolation system. Refer to the isolation transformer manual for additional information.

All AC current is distributed to the AC components through individual circuit breakers located in the AC panel. The main breaker in the panel protects the system from an overload.

DANGER

ELECTROCUTION, FIRE OR EXPLOSION HAZARD

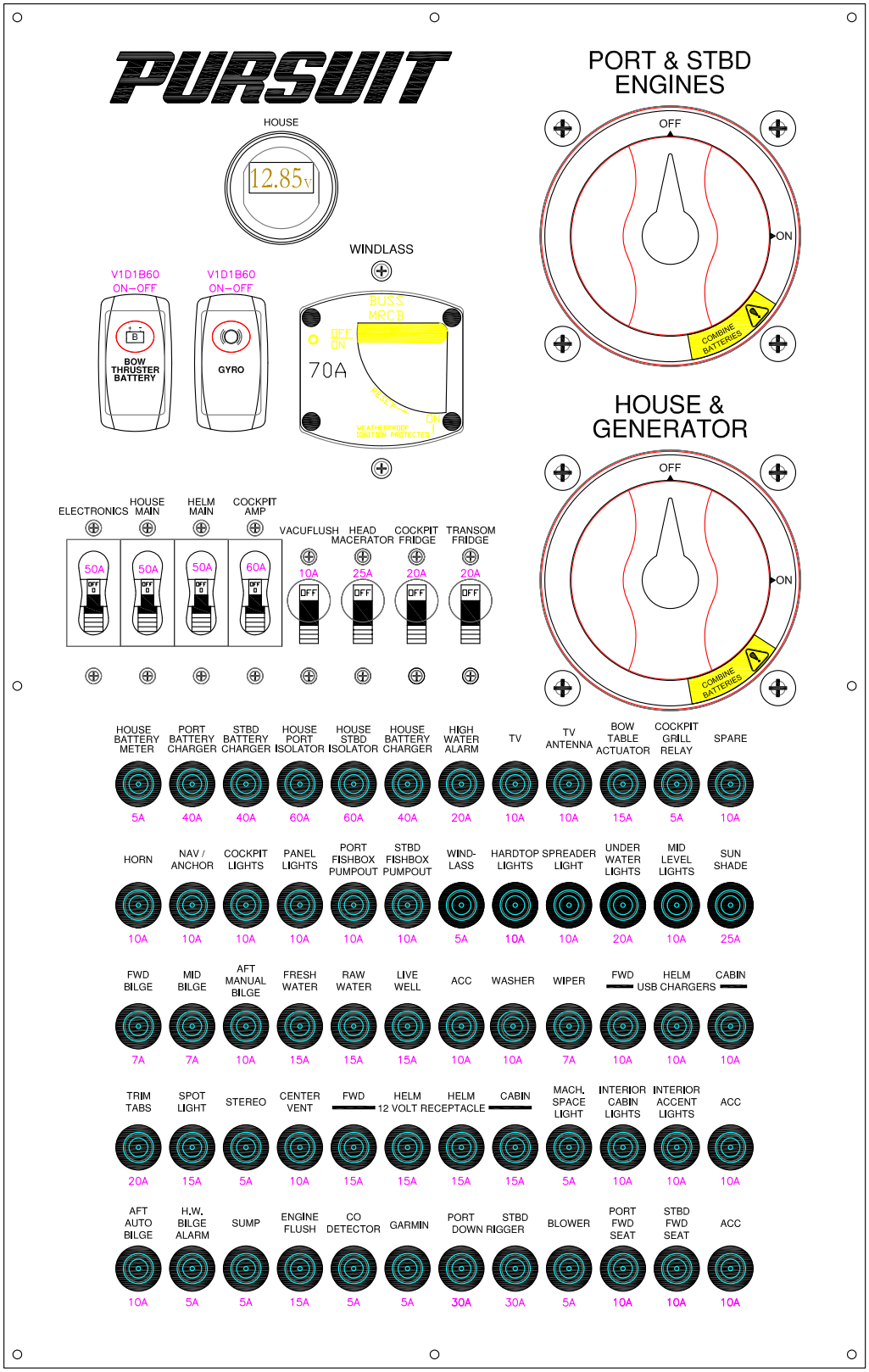
Contact with live wires or working on an energized electrical system can cause electrocution. It can also cause sparks, resulting in fire and/or explosion. Both cases will result in death or serious injury. DO NOT work on an energized system or allow unqualified personnel to work on the system.

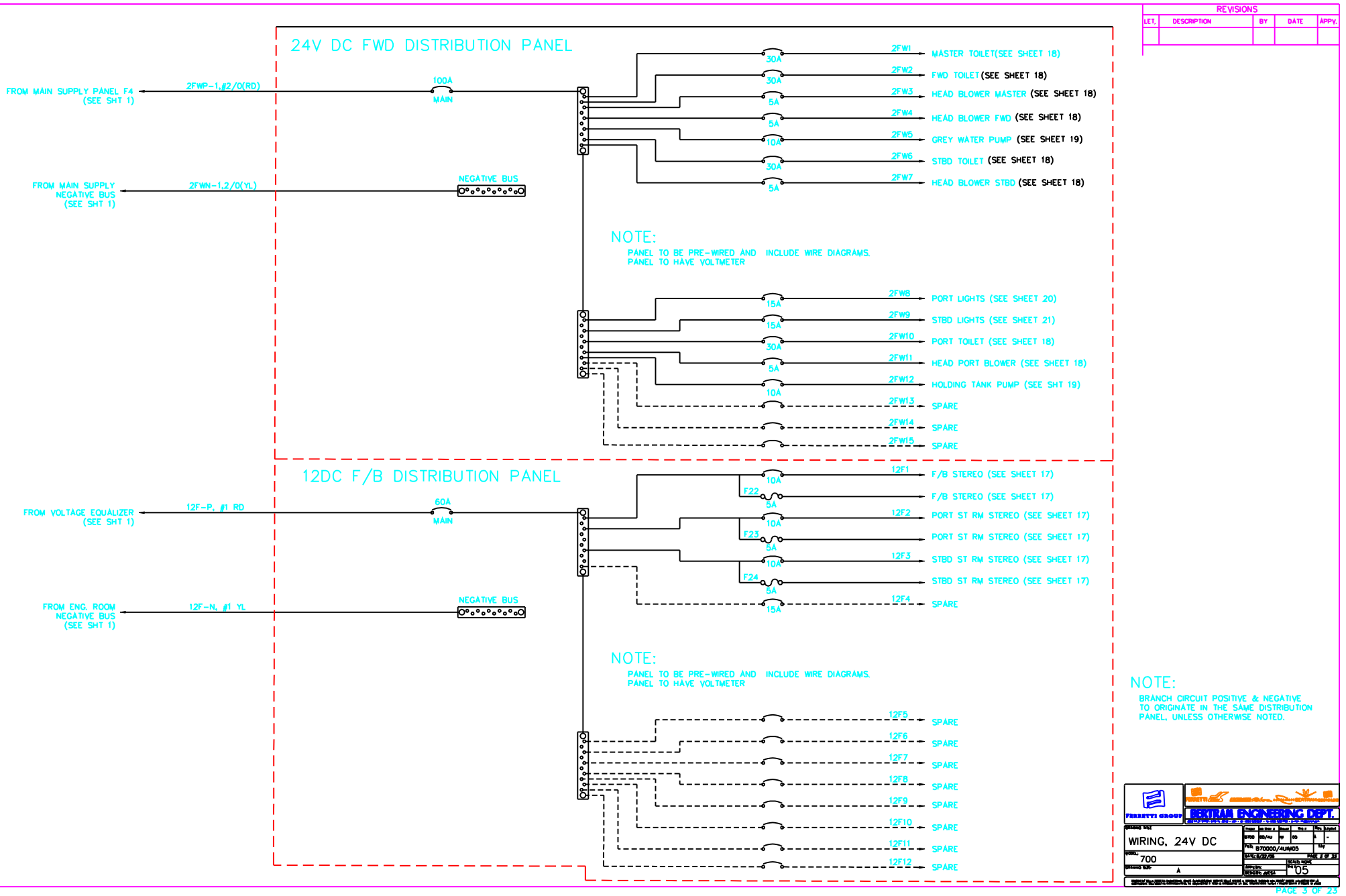
4.5 AC Main Distribution

The AC MDP is in the cabinet to the port side of the companionway entrance. There are several breakers on the AC MDP, which need to be switched ON for their corresponding components to operate.

The AC electrical system operates on a 120-volt, 30-amp, 60 Hz system. Models with CE designation operate on a 230-volt, 16-amp, 50 Hz system. The AC system is fed by the shore power or by the generator. Your boat is equipped with an isolation transformer.

3300225 S4 12V DC MDP PANEL (FACE)





REVISIONS				
LET.	DESCRIPTION	BY	DATE	APPV.

FERRETTI GROUP

SERIAL ENGINEERING DEPT.

WIRING, 24V DC

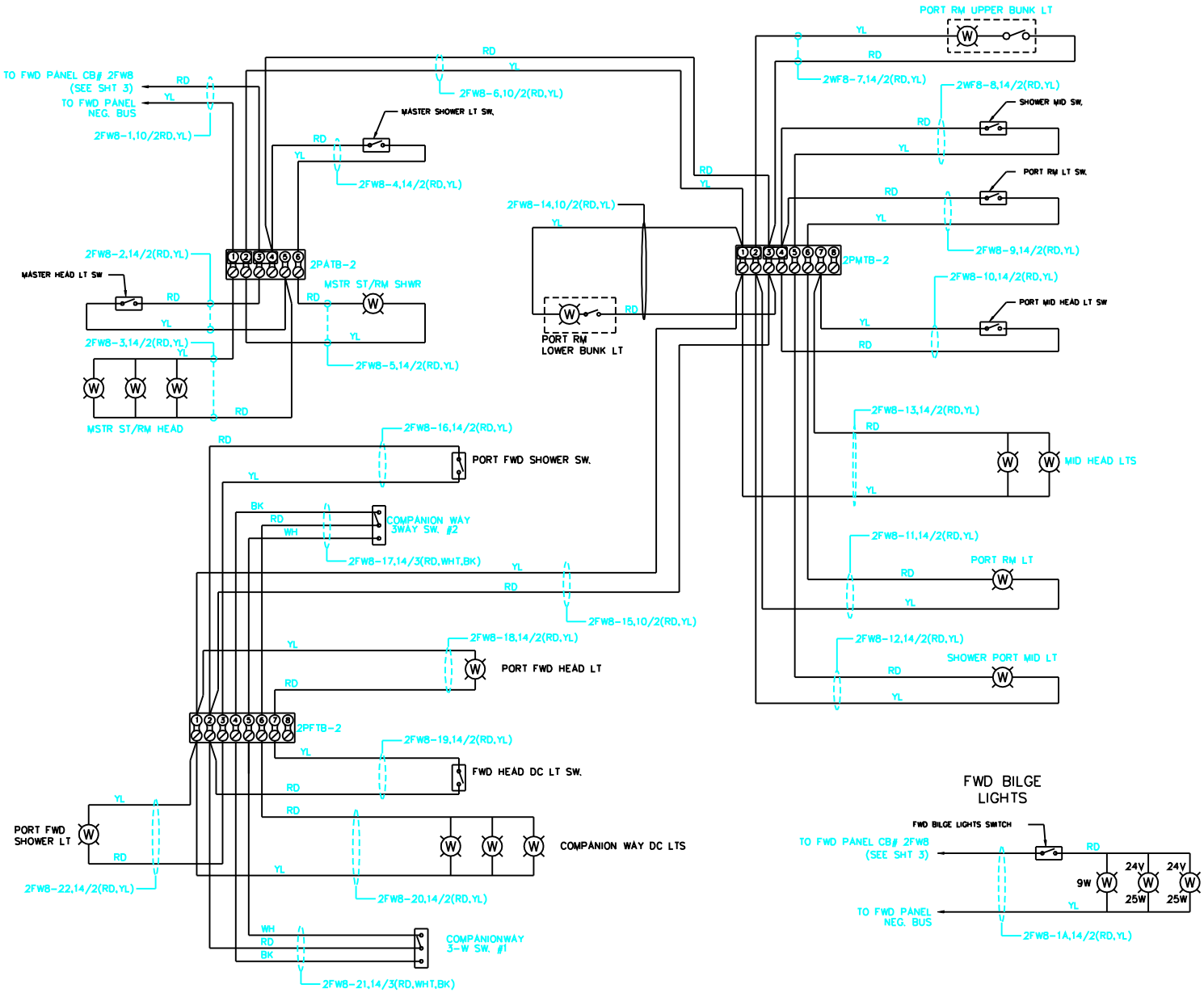
700

A

B70000/4UM05

05

PORT DC LIGHTS



FWD BILGE LIGHTS

ALL LIGHT BULBS TO BE 10W 28V UNLESS INDICATED

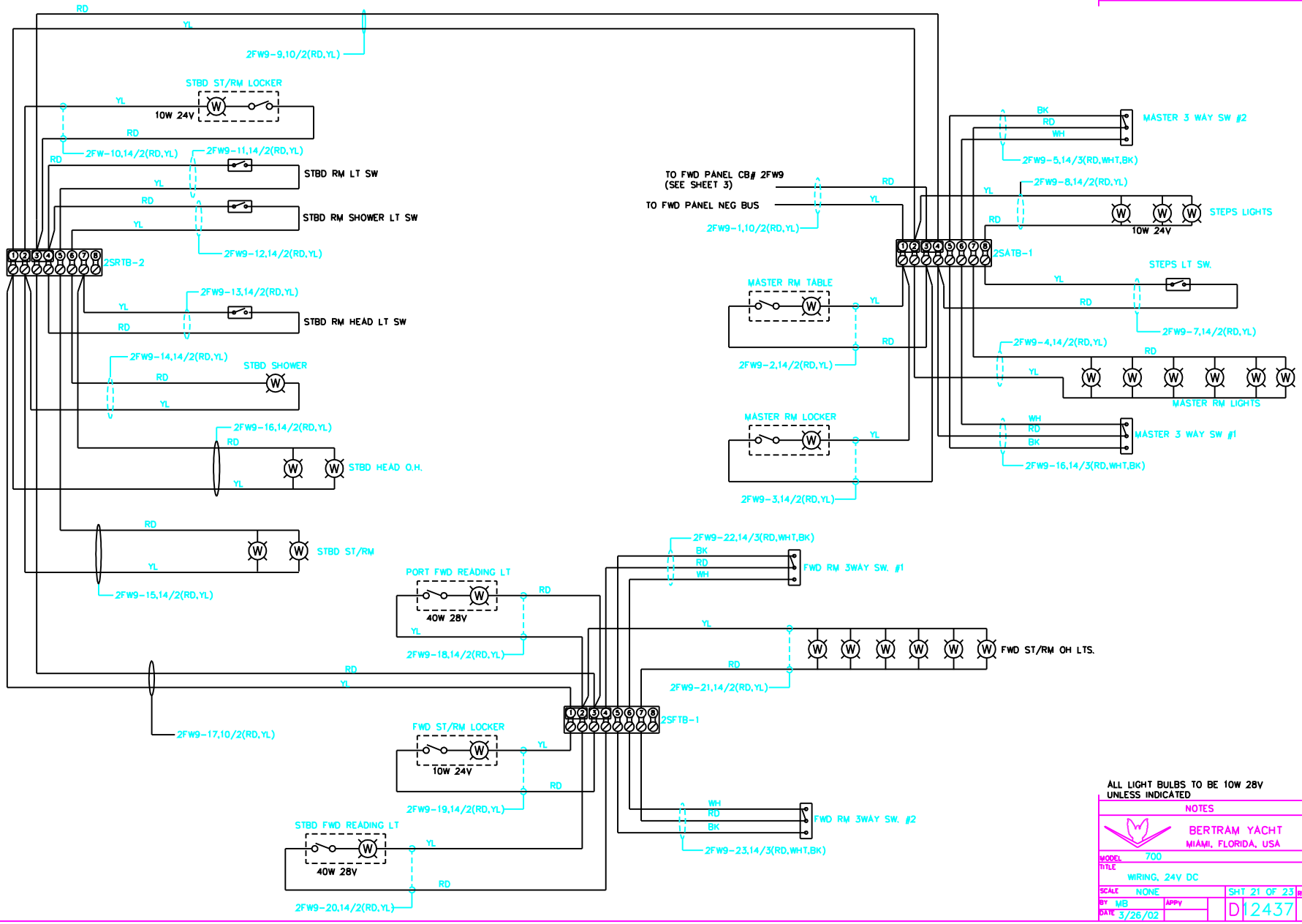
NOTES

REVISIONS				
LET.	DESCRIPTION	BY	DATE	APPV.

BERTRAM YACHT
MIAMI, FLORIDA, USA

MODEL 700
TITLE WIRING, 24V DC
SCALE NONE
SHT 20 OF 23
REV
BY MB
APPV
DATE 3/27/02
D12437

STBD DC LIGHTS



REVISIONS				
LET.	DESCRIPTION	BY	DATE	APPV.

ALL LIGHT BULBS TO BE 10W 28V
UNLESS INDICATED

NOTES

BERTRAM YACHT
MIAMI, FLORIDA, USA

MODEL 700
TITLE WIRING, 24V DC
SCALE NONE
SHT 21 OF 23
REV
BY MB
APPV
DATE 3/26/02
D12437

000.3 DESIGN AND PERFORMANCES

000.3.1 MAIN CHARACTERISTICS

Length overall (handrail included):	28.69	m	
Waterline length at full load:	26.3	m	
Beam overall (overall excluding rubbing strakes):	7.3	m	
Moulded Depth:	3.65	m	approx
Draft at full load (relating to the lowest point, including the appendices, at even keel):	2.02	m	approx
Displacement 1/3 load - test **(1)**:	112	t	approx
Displacement half load **(2)**:	115	t	approx
Displacement full load **(3)**:	120.5	t	approx
Gross tonnage (ITC '69):	190 GT		

Total Fuel Oil tanks capacity:	12000	litres	approx
Total Fresh Water tank capacity:	2100	litres	approx
Total Sewage tank capacity:	875	litres	approx
Total Greywater tank capacity:	875	litres	approx

Accommodation for Owner & guests:	10	persons in 5 cabins
Accommodation for crew:	5	persons in 3 cabins

Notes:

(1) 1/3 load condition: standard equipment installed (no tender, no pwc, no luggage, no options, no owner's supply…), fuel and fresh water tanks respectively at 33% of maximum value, empty sewage/greywater tank, empty pool, 16 passengers.

(2) Half load condition: standard equipment installed (no tender, no pwc, no luggage, no options, no owner's supply…), fuel and fresh water tanks respectively at 50% of maximum value, empty sewage/greywater tank, empty pool, 16 passengers.

(3) Full load condition: standard equipment installed (no tender, no pwc, no luggage, no options, no owner's supply…), fuel and fresh

PRELIMINARY

300.2 MAIN VOLTAGE SYSTEM

300.2.1 ELECTRIC POWER SYSTEM, GENERAL

General

Electrical equipment will be selected and located to ensure adequate protection against damages from water, oil, humidity, vibration and will be arranged in such a way to facilitate access for maintenance.

Distribution

The electrical distribution will be as hereafter described:

Main machinery	400V AC / 50Hz / 3 phases
Lighting and household appliances, stereo, TV sets, and other low power users	230V AC, single phase
Emergency lighting system	24V DC battery system,
Service equipment	24V DC battery system

The AC power will be supplied by two diesel generators or by a shore power system.

Shore supply system

The Yacht may receive shore power supply through one 125 A shore power connector located in the aft area of the yacht.

One shore power cable of suitable section and length will be supplied.

One shore insulating transformer will be installed.

Starter devices and panels

Where possible, starters and protections of equipment located in the engine room will be centralised in the main switchboard.

Start-stop push buttons can be positioned on the main switchboard or locally near the users according to the engine room available space.

Cables

Cables with stranded wires suitable for marine use will be used. Cables will be of the multiple conductors type for all AC circuits. All

PRELIMINARY

cables connected to terminal blocks will have 'ferrule end connectors' or other means of connection. All the wires and terminal strips will be marked with identification code in the switchboard, in junction boxes and at the termination of the wire. All connection boxes (also in the accommodations) will be made accessible. Penetration of watertight bulkheads will be done with adequate sealing systems.

300.2.2 ELECTRICAL PANELS

Main switchboard

The main switchboard will be installed in a technical area outside engine room.

All front panels will be hinged or removable with quick release locks for easy access.

On the main switchboard front panel the following equipment will be installed:

- Volt, Ampere, kWatt and Hertz meter for each generator,
- Volt, Ampere, kWatt, Hertz and sequence meter for shore supply,

The main switchboard will contain two main bus-bar interconnectable by a bus-bar connector. If the connector is open, each generator can feed the users of each bus-bar.

The shore transformer can feed both bars or one of them if the bar connector is open. It is also possible to feed one bus-bar with a generator and the other with the shore connection.

Distribution panels

Local switchboards will be installed for distribution of electrical power. They will contain automatic circuit breakers for different lines or circuits. A switchboard will be installed in the wheelhouse, with AC and DC circuit breakers for the navigation and electronic users and all external lights.

Local distribution switchboards will be installed in the following areas:

- salon (upper and main deck),
- guest accommodations,
- crew accommodations,
- Owner’s area,
- galley,

PRELIMINARY

300.4.3 EMERGENCY STOP SYSTEM

Main engines emergency stops will be installed in wheelhouse and engine room.

One panel will be installed in way of engine room main entrance/exit for:

- Main engines emergency stop,
- Generators emergency stop,
- Fuel transfer pump emergency stop,
- Engine room fans emergency stop,
- Engine room air dampers closure,
- Daily fuel oil tank feeding valve closure.
- Garage shut off

300.5 NAVIGATION LIGHTS

Navigation lights (single light execution) will be provided. The navigation lights panel will be fed from service and emergency battery banks. Control of navigation lights in the wheelhouse monitor, with audible and visual alarm in case of failure.

300.6 LIGHTING AND PLUGS

300.6.1 LIGHTING SYSTEM

Proper LED lighting will be provided inside and outside the Yacht.

Dimmers will be fitted for spotlights in Owner's cabin (no bath), salons, guest cabins (no baths) and public areas (lobby and foyer only).

Accommodation lighting will be chosen according to Azimut standard.

Low intensity red lights will be installed in wheelhouse for night cruising of the yacht.

Exteriors: overhead ceiling lights and courtesy lights will be installed.

All lighting circuits will be protected by fuses fitted on local switchboards as described in the paragraph above.

PRELIMINARY

The choice and specification of all equipment and fittings is to be made with consideration to practical seaman like requirements with minimum weight, balanced against durability, operational requirements and quality.

The yacht is to be designed, built and equipped to suit operation in Mediterranean or similar conditions.

Special consideration is to be made in the choice and specification of air-conditioning and ventilation systems, to ensure total suitability for the climate envisaged.

During the early stages of specification, it is advised that the owner / operator inform Sunseeker of the yachts potential operations and where possible the general cruising grounds of the yacht.

010 Principal Characteristics

Length Overall	40.05 Metres / 131' 5"
Length Waterline @ Normal Half Load	31.19 Metres / 102' 4"
Beam Maximum (inc. topside fender strakes)	8.09 Metres / 26' 7"
Draft @ Full Load	2.70 Metres / 8' 10"
Height from waterline to top of arch	9.20 Metres / 30' 2"
Displacement @ Light Load	181,400 kg / 399,918 lbs
Displacement @ Normal Half Load	189,600 kg / 417,996 lbs
Displacement @ Full Over Load	208,600 / 459,883 lbs
Owner and guest accommodation	10 persons
Crew accommodation	1 x Captain's double cabin 1 x Engineer's double cabin 4 x Crew in two cabins

(Design Note - The above values are preliminary and are therefore subject to change with completion of the first build and final specification)

Main Engines	Option 1	2 x MTU Marine Diesel Engines Model 12V 4000 M93 3138hp (2340kW) @ 2100 RPM
	Option 2	2 x MTU Marine Diesel Engines Model 12V 4000 M93L 3459hp (2580kW) @ 2100 RPM
	Option 3	2 x MTU Marine Diesel Engines Model 16V 4000 M93L 4613hp (3580kW) @ 2100 RPM
Propulsion	2 x Fixed pitch Propellers	
Generators	2 x 70kW 400/230V 3 phase 50Hz (Euro) 2 x 80kW 400/230V 3 phase 60Hz (US)	

015 Capacities

Fuel	
Normal Load Capacity (Main tank 18,150 litres + Day tank 3,500 litres)	21,650 Litres (5717 US Gals)
Optional Overload Tank Capacity (standard overload)	5,050 Litres (1334 US Gals)
Optional Overload Tank Capacity (extended overload)	8,000 Litres (2112 US Gals)
Total Long Range Capacity (standard overload)	26,800 Litres (7050 US Gals)

000 - General & Classification
050-50 Stability Book
050-51 Damage Stability Book (Unrestricted/charter)

200 - Hull Construction
220-01 Mid ship Section
220-02 Hull Shell Arrangement
220-03 Hull Stiffening Arrangement
224-50 Forward Frame Construction
220-51 Aft Frame Construction
225-01 Engine Girders

300 - Interior Fit-out
315-02 Structural Fire Protection
315-04 Sounds and Fire Insulation

400 - Exterior Fit-out
455-00 Mast Arrangement
471-01 Safety & Lifesaving Plan
480-01 Crane and Lifting Plan
481-01 Freeboard Mark

500 - Machinery
500-01 Engine Room Layout
500-XX Garage Layouts
501-XX Engine Geometry
545-02 Rudder Shelf installation

600 - Systems
611-01 Black Water System
616-01 Potable Water System
621-01 Grey Water System
625-01 Garage Ventilation
631-01 Air-conditioning System
631-50 Crew & Master Fresh Air Make-up
631-51 Guest Fresh Air Make-up
631-53 Galley Extraction
641-01 Bilge and Fire system
645-01 Fire Suppression System
651-01 Fuel Oil System
660-03 Hydraulic System incorporating Thrusters and Stabilisers (optional)
670-00 Auxiliary Hydraulic System
670-01 Auxiliary Hydraulic Forward Garage (optional)
675-01 Exhaust Installation
680-XX Raw Water System - Main Engines and Generators
685-XX Deck Drains & Scuppers

700 - Electrical
700-00 Electrical Equipment General Arrangement
700-03 Emergency Electrical General Arrangement
721-00 Earth Bonding
731-00 24 Volt DC Battery & Control Locations
740-01 Thrusters / Stabilisers Control Wiring
741-00 Platform Control Wiring
752-00 Fire Alarm System GA
756-00 Emergency Lighting Plan
760-00 Electrical Fittings Layout
776-00 Navigation Lights

700 Electrical

All electrical systems are designed and installed in accordance with Classification Society standards.

All electrical equipment is selected from ranges demonstrated to be suitable for marine use. Wherever appropriate, equipment is type-approved by the relevant Classification Society.

All cables are selected from marine ranges and shall be type-approved by the Classification Society as required.

Cable support is in accordance with classification society rules and all major cable runs within the machinery space are supported on wire cable trays.

700 Electrical MCA Large Yacht Code 2

The Emergency switch board and battery bank is located out side the machinery space. The emergency batteries are loacted on the Upper Deck, outboard of t he Captains Cabin and the switchboard is located beneath the wheelhouse console. In the event of a loss of power the Navigation lights and emergency lighting will be supported these batteries.

There will be a seperate Radio communication battery bank and distribution board. This will provide power for distress communications only.

720 AC Power System

Main AC Power Supply

Boats to European Standards:

3-Phase supplies - 400 Volts 50Hz 4-wire distribution with grounded neutral.
Single-phase supplies - 230 Volts 50 Hz with grounded neutral.

Boats to US Standards:

3-phase supplies - 400 Volts 60Hz 4-wire distribution with grounded neutral.
3-phase supplies - 208 Volts 60Hz 4-wire distribution with grounded neutral.
Single phase supplies – 230 & 120 Volts 60Hz with grounded neutral.

Electrical power is supplied from two main generators. When alongside, power may be drawn from shore side connections via either an isolating transformer or optional shore power converter.

Connection to the shore will be via a 20 metre shore cable capable of 100 amp per phase duty. This is fed and retrieved via a Glendinning cable master.

Main Switchboard

AC Power is fed into a power management system that protects and manages the available power supplies and distributes power to sub-distribution boards throughout the boat.
The power management system is installed within a space directly adjacent to the engine room. Appropriate panel instrumentation is provided to permit local monitoring and in the event of an emergency, manual control of the system.

Two distribution sections are provided, each directly fed by one generator. Under normal operating conditions one generator is nominated as the duty set and this machine will supply the entire boatload. The second generator is designated as the stand-by set.

Manual switching between duty and stand-by generators automatically seamlessly connects the stand-by machine and shares the load during peak demand. Manual operation is via the touch

screens (Marine Personal Assistant) located at the bridge and main switchboard location which shares a screen in the engine room.

When a shore power connection is available, switching between generator and shore power will be “seamless” i.e. there will be no interruption of AC power.

The ‘Marine Personal Assistant’ (M.P.A) facilitates control and monitoring of the main ship systems including tank levels, breaker status, alarm activation and monitoring, pump controls once manual valve selection has been completed, bilge and fire information and all electrical load management. The MPA can accommodate additional facilities when requested as a customer variation.

Power Distribution
The final circuits in the boat are protected by residual current circuit breakers (GFCI or ELCB) and by over-current circuit breakers.
Sub distribution boards are proposed as follows:

- Crew Area
- Galley
- Accommodation
- Wheelhouse
- Machinery Space (Main Panel)

Separate distribution panels are provided for AC and 24V DC circuits. Each outgoing circuit from a panel is protected by a circuit breaker. Spare circuits are provided in each panel.

721 Earth Bonding/Annodes

Zinc anodes are fitted adjacent to all metallic underwater fittings, and a comprehensive bonding system is installed to ensure that the greatest possible efficiency of cathodic protection is obtained.

- Stern anodes are installed to protect propulsion and manoeuvring fittings, including all external through hull fittings that are permanently in contact with sea water.
- Local anodes are provided for external through hull fittings positioned in the forward hull section. These local anodes are not connected to the rest of the boats bonding system
- Local anodes are provided to protect the bow thruster.
- All earth connections are connected to a bronze earth plate on the under side of the hull. In addition to normal underwater bonding, all metallic handrails on the sky deck only are connected to earth.
- Propeller shafts will have shaft brushes fitted.
- A second identical earth plate on the hull is connected exclusively to the lightning conductor spike at the mast in accordance with Classification requirements.

722 - Shorepower, Transformers & Convertors (34 - Confidential)

Atlas SPA90 shorepower converter (90kVA) in lieu of Isolation Transformer

722 - Shorepower, Transformers & Convertors (34 - Confidential)

Second 100A socket with 20m cable required

Electrical equipment in the garage area is specified so as to be suitable for use in these environment -ref IEC 60079 - ATEX regulations

The following equipment is provided:

1 x ATEX certified (IS) smoke detector connected to the boat fire alarm system.
1 x ATEX certified gas detector.
1 x Emergency light fitting ATEX certified
1 x ATEX approved bilge pump
1 x Air extract fan ATEX certified
2 x Fire dampers (1 air in, 1 air out ATEX certified)
1 x Low airflow switch (ATEX Certified) connected to the MPA screen to alert if the air extraction system fails.

All electrical equipment in the garage is installed to IP55 standard minimum.
Non-certified essential electrical equipment is only installed above 450mm from the garage deck.
This will include but is not limited to:

Electrical sockets
Non-certified lighting
Compressors

Items for which there is no or inadequate IP Rating available, are fitted with a manually operated isolation switch positioned in a prominent location outside of the tender garage that will isolate every pole of the power supply to the equipment.
This will include but is not limited to:

Electrical tender winch

The location of the equipment in the garage area is based on Sunseeker Reference Drawing 700-14

760 - Interior Lighting & Utility (34 - Confidential)

LED Interior lights to be fitted

760 - Interior Lighting & Utility (34 - Confidential)

Gold Vimar Lighting Package required

760 Interior Lighting/Utility

The standard interior lighting will be arranged as local circuits, predominantly via transformed power supplies. The interior lighting is locally switched with light fittings from the standard Sunseeker range. No central lighting control system is fitted, however as standard the following functionality is provided:-

Main Deck Saloon	Scene Control with dimming functionality.
Main Deck Dining Area	Scene Control with dimming functionality
Master Stateroom	Scene Control with dimming functionality
Upper Deck saloon	Dimming functionality

All other guest cabins, en-suites and common areas are locally switched with no dimming as standard.

770 - Exterior Lighting & Utility (34 - Confidential)

Underwater Lights - 15 x Large Xenon 100mm (150w) (3 across transom and 6 on either side)

770 Exterior Lighting/Utility

The standard exterior light is a white LED type marine grade fitting. All exterior lighting is controlled via the Touchscreen control system

No underwater lights are provided as standard.

770 Exterior Lighting/Utility MCA Large Yacht Code 2

Specific standard lights of the Yacht's exterior will make up the Emergency lighting and will automatically switch in the event of loss of ship's main power. These lights will illuminate the escape routes, muster points and disembarkation points and reflected on the Yacht's Safety & Lifesaving Plan.

Additional lights connected to the Emergency Lighting circuits will be fitted for the following areas:-

- LED Lights to illuminate the Liferaft deployment area on the Upper Deck (1x per side)
- LED Lights to illuminate the water landing area of the liferaft's (1x per side)
- LED Lights to illuminate the disembarkation of personnel into liferafts (1x per side)

776 Navigation Lights

Navigation lights are provided, based on the International Regulations for the Prevention of Collision at Sea 1972 (IMO). The standard light is the Aqua Signal Series 55 for vessels 20-50m in length. In order to comply, the masthead light will be fitted forward of midships on a separate carbon fibre mast.

776 Navigation Lights MCA Large Yacht Code 2

The primary navigation lights (Port, Starboard, Steaming & Stern) will be provided with an Emergency power supply, switched from the Emergency distribution board beneath the wheelhouse console. The forward mast will be fitted with a second steaming light. This will allow the operator to maintain operation within 3 minutes in the event of lamp failure.

777 Horns & Horn Controls

The standard Air Horn shall be a chrome finish dual trumpet, with separate air compressor, and local valve. The standard air horn will comply to current Collision Regulations in force. Horn control will be in the Main wheelhouse only as standard.

778 Wipers

5 x Pantograph windscreen wipers with Screen washers are provided with control in the wheelhouse.

780 - Alarms & Monitoring (34 - Confidential)

MPA Monitoring - Additional Touchscreen as Master Screen in the Crew Mess. This is a full Touchscreen display and works independently of the Wheelhouse or Main Panel displays. If you change the MPA page in the Crew Mess no other displays will change.

4101 Specifications

Raised Pilothouse Motor Yacht

PRIMARY DIMENSIONS

LOA	134’ 6”
LWL (at half load)	117’ 5”
Maximum beam	26’ 2”
Draft (at full load)	6’ 0”

DISPLACEMENT

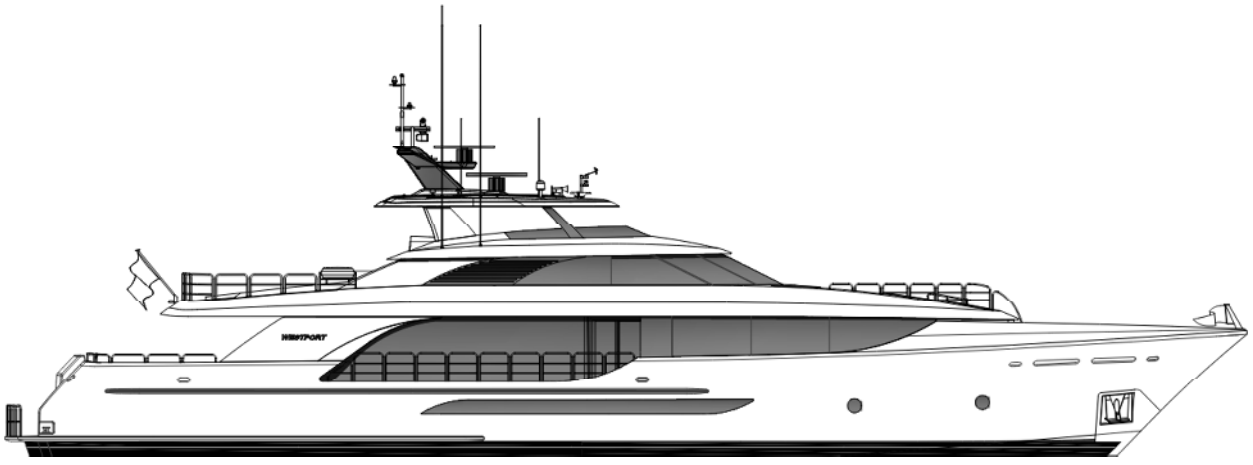
Full load	418,000 pounds
Half load	395,000 pounds
Light ship	340,000 pounds

SPEED ESTIMATES

Cruise	20 knots
Maximum	25 knots

TANK CAPACITIES

Fuel	7,000 US gallons
Fresh water	1,300 US gallons
Black water	1,050 US gallons



Please note: Dimensions, weights, and capacities where shown are approximate. Speed, weight, and other performance estimates if shown or discussed are estimates only and are not guaranteed.

Modifications made to the vessel may change or affect speed, weight, or other capacities and estimates.

SHORE POWER

Connection to shore power is made through two shore cords at the stern of the vessel. System can accept single or three-phase power, from 180 to 520 volt and 47 to 64 Hz. Cords are handled through a powered deployment and retraction system.

Shore power converter: 80 kVA capacity

Cords: Two 100', 100 amp, three-wire with ground

Cord handling and storage: Two Glendinning Cablemasters

AC ELECTRICAL DISTRIBUTION

AC service from shore power and generators is routed to a main distribution electrical panel in the Control Room, then to subpanels located throughout the vessel. Wiring is four-wire three-phase 208 volts with 120 volt single-phase branch circuits where required.

Main distribution panel is constructed of extruded aluminum with powder coat finish, built to IP20 level of protection and incorporates forced-draft cooling. Main panel displays a full gauge package for all sources including volts/amps of each line, phase, power, power factor, and frequency.

Distribution system is designed for parallel operation between generators. Main distribution panel includes a seamless transfer feature for uninterrupted power output during switchover between generator/s and shore power.

DC ELECTRICAL SYSTEM

Twenty-four volt DC power is supplied by six banks of absorbed glass matt (AGM) batteries: house bank, emergency bank, port and starboard main engine start banks, generator start bank, and reserve bank.

House bank power is distributed through the main electrical distribution panel to sub panels and powers emergency lighting and navigation electronics.

House bank batteries: Four 8-D 245 amp-hour in series-parallel

Emergency bank batteries: Four 8-D 245 amp-hour in series-parallel

Main engine start bank batteries: Two banks of two 8-D, 245 amp-hour in series

Generator start bank batteries: Two group 31, 105 amp-hour in series

Reserve bank batteries: Two group 31, 105 amp-hour in series

House bank charger: Newmar 95 amp/24 volt DC

Emergency bank charger: Newmar 95 amp/24 volt DC

Main engine start bank charger: Newmar 45 amp/24 volt DC

Generator start bank charger: Newmar 20 amp/24 volt DC

Reserve bank charger: Newmar 20 amp/24 volt DC

LIGHTING

Overhead light fixtures: LED fixtures with integrated emergency lighting, interior Guest area lighting is tunable white, exterior lighting is non-tunable white

Lighting control: Interior and exterior lighting controlled by iPads through the Crestron automation system

Reading lights: Staterooms have bedside reading lights

Indirect lighting: LED strip lights

Shower lights: 24 volt with stainless steel trim

Searchlight: Carlisle & Finch 200 watt Xenon located on mast with dual controls

Underwater lights: Four across the stern

Navigation lights: LED

Vessel Alarms & Monitoring

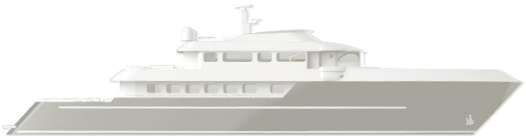
Vessel Information and Control (VIC II) is a proprietary Westport monitoring and alarm system that identifies and provides visibility to critical vessel function and safety information on a single screen in the Pilothouse.

System is based on a 24 volt redundant architecture to provide robust reliability in both normal operation and emergency situations.

Hardware includes a dedicated network of “human machine interface” (HMI) touch screens strategically located throughout the vessel to aid the crew in efficient alarm recognition.

Features include:

- A single point alarm management screen in the Pilothouse and four remote touch screen HMI’s
- Instant trending for tank levels and electrical loads
- Electrical system monitoring and alarms indicating condition of on-board and shore power systems
- Tank monitoring, alarming or trending for fresh water, fuel, hydraulics, and black water
- Flood condition monitoring including alarming for all bilge pumps and sump pumps
- Security system with vessel specific monitored points
- Carbon monoxide monitoring and alarms in spaces with combustion machinery or engine exhaust piping
- Navigation light monitoring and alarms



ARK YACHT

45m Motor Yacht

General

Yard No	-
Type	Trawler motor yacht
Naval Architect	ARK YACHT
Technical Consultant	ARK YACHT
Interior Styling	ARK YACHT
Builder	ARK YACHT

Principal Dimensions & Main Specifications

Length overall (L_{OA}) (inc. platform)	45.00m / 147.60ft
Length waterline (L_{WL})	40.56m / 133.03ft
Breadth (moulded) (B)	9.00m / 29.52ft
Draft (T)	3.50m / 11.48ft
Displacement (Δ)	320 tons
Speed max. (V)	14 knots
Passenger	10
Crew	8+1
Class	upon request

Technical Information

Construction

Hull Material	Steel
Structure Material	Steel

Main engine

2x1550 HP

Steering system

Hydraulically operated steering system
1 x Main steering position in the wheelhouse

Gearbox

Twindisc or ZF

Tank capacities

Fuel	21000 ltr
Fresh water	8500 ltr
Gray water	3500 ltr
Black water	2000 ltr

Propeller & Installation

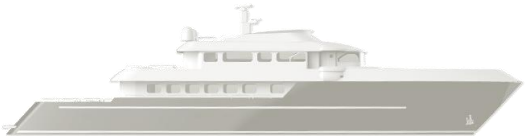
4-blades propeller

Generators

2 x 40 Kva

Bow thruster

Hydraulic thruster



ARK YACHT

Deck equipment
Fixed sitting areas on aft decks
Sunbathing area for 8-10 persons
Sun tent
Electrohydraulic windlass
Stainless steel, hydraulic gangway
Electrohydraulic steer
Hydraulic system unit

Boiler
2 x 120 lt

Watermaker
150 lt / h

Wastewater treatment system
2000 lt / day

Air-conditioning
Central

Standard equipment
CO2 Fire extinguish system in engine room
Bilge & fire pumps
Noise & Fire Insulation

Navigation equipment
Navigation system
Radar - charts
GPS - AIS
Gyro compass
Navtex receiver

Communication equipment
VHF
Satcom-C
Telephone exchange
GSM

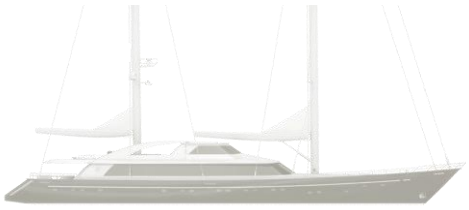
Electrical details
Separate electric systems of 220V and 24V fed by gensets and batteries.

Shore connection of 220V.

Inverter and battery chargers.

24V lighting system and 220V sockets in all accommodation areas.

Navigation lights.



ARK YACHT

50m Sailing Yacht

General

Yard No	-
Type	Ketch
Naval Architect	ARK YACHT
Technical Consultant	ARK YACHT
Interior Styling	ARK YACHT
Builder	ARK YACHT

Principal Dimensions & Main Specifications

Length overall (L_{OA})	50.00m / 164.00ft
Length waterline (L_{WL})	42.70m / 140.05ft
Breadth (moulded) (B)	10.00m / 32.80ft
Draft (T) (with keel)	3.95m / 12.95ft
Displacement (Δ)	340 ton
Speed max. (V)	11 knots
Passenger	24
Crew	4+1
Class	upon request

Technical Information

Construction

Hull Material	Steel
Structure Material	Steel

Main engine

2 x 455 HP

Steering system

Hydraulically operated steering system
1 x Main steering position in the wheelhouse
1 x Steering position on Flybridge

Gearbox

Twindisc or ZF

Tank capacities

Fuel	12500 ltr
Fresh water	10000 ltr
Gray water	6000 ltr
Black water	3550 ltr

Propeller & Installation

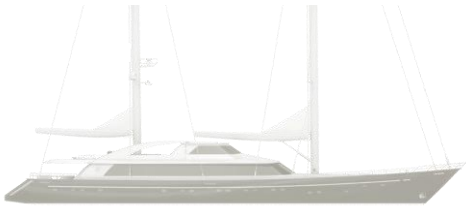
4-blades propeller

Generators

40 kVa + 24 kVa

Bow thruster

Hydraulic thruster



ARK YACHT

Deck equipment
Exterior cockpit
Sunbathing area for 8-10 persons
Sun tent
Electrohydraulic windlass
Stainless steel, hydraulic gangway
Electrohydraulic steer
Hydraulic system unit

Boiler
2 x 120 lt

Watermaker- Waste treatment system
160 lt / h
2500 lt /day

Air-conditioning
Central

Standard equipment
CO2 Fire extinguish system in engine room
Bilge & fire pumps
Noise & Fire Insulation

Navigation equipment
Navigation system
Radar - charts
GPS - AIS
Gyro compass
Navtex receiver

Communication equipment
VHF
SSB
Satcom F
Satcom-C
Telephone exchange
GSM

Sail equipment
Sail winches
Furlings

Electrical details
Separate electric systems of 220V and 24V fed by gensets and batteries.

Shore connection of 220V.

Inverter and battery chargers.

24V lighting system and 220V sockets in all accommodation areas.

Navigation lights.