AB Normal

98' 10" (30.12m) INACE

LOA:	98' 10" (30.12m)	**Year:**	2006
Beam:	23' 7" (7.19m)	**Builder:**	INACE
Draft:	7' 8" (2.34m)	**Type:**	Motor Yacht Expedition/Explorer
Speed:	10.00 Knots 13.00 Knots	**Price:**	$6,845,000 USD
Location:	Florida United States		

Proud Member of YATCO

Additional Specifications For AB Normal:

LOA:	98' 10" (30.12m)
Beam:	23' 7" (7.19m)
Max Draft:	7' 8" (2.34m)
Hull Material:	Steel
Hull Config:	Displacement w/ Bulbous Bow
Hull Designer:	Pat Bray
Deck Material:	Teak and Steel
Deck Material:	Aluminum
Tonnage:	188
Range At Cruise:	4500
Range At Max:	0
Speed:	Cruising 10.00 Knots Max 13.00 Knots
Int Designer:	Kirschstein Designs Ltd
Ext Designer:	Kirschstein Designs Ltd
Fuel Capacity:	47,317.00 L (12,499.83 Gal)
Water Capacity:	9,000.00 L (2,377.55 Gal)
Holding Tank:	700.00 L (184.92 Gal)
Flag:	British
Location:	Florida, United States
Price:	$6,845,000 USD

Delivery/Model Year:	2006
Year Built:	2006
Builder:	INACE
Type:	Motor Yacht Expedition/Explorer
Top:	Raised Pilothouse
Engines:	450 HP,Twin, 2006, Inboard, Diesel, Caterpillar, 3406E DITA Electronic, 9500hrs / 9500hrs
Staterooms:	3
Sleeps:	6
Heads:	8
Crew Quarters:	3
Crew Berths:	6
Classifications:	American Bureau of Shipping

DISCLOSURES

NOT FOR SALE TO U.S. RESIDENTS WHILE IN U.S. WATERS

VAT PAID

INTRODUCTION

AB Normal was the 6th in the highly successful series of Inace aft house Explorer Yacht designs from 80' to 126'. These proven Explorer yachts have now done hundreds of thousands of miles of exploring through all types of sea conditions and proven themselves to have outstanding sea keeping, sea kindliness and efficiencies. Inace Explorers are known and admired worldwide in the Explorer Yacht community for their solid commercial systems, ease of operation, long range and comfort at sea. The hull design was done by Bray Yacht Design, a specialist in high efficiency hull designs and bulbs.

AB Normal was designed with a larger main deck house which enabled her to have a separate dining area and lounging area on the main deck while others in her size range have a combined lounge/dining area.

AB Normal's swim platform was extended by 4' to enhance boarding and to create a water level lounging area. She has also had additional on-deck storage added and other upgrades including a new hot tub on the sky lounge deck. AB Normal has just finished an extensive upgrade and service period, a complete list of which is found below. All systems were checked, serviced or replaced as needed. She then did a flawless trip from the US to the Med and a summer cruising. Much of the equipment AB Normal has has been changed in the past few years including generators, main air conditioning compressors, pumps and head system. AB Normal has had an extensive refit and upgrade in 2019. Refit items are listed in sections below.

She is ready to cruise to all the exotic places around the world, and VAT paid in Europe.

HULL CHARACTERISTICS

Length Overall	98'/30.12m.
Length on deck	84' 6"/25.749m.
Length on the Waterline (approximate)	84'4"/25.718m.
Beam molded	23.52'/7.15m.
Draft (Fully loaded)	7' 8"/2.35m.
Draft (50% load) 6000 gal Fuel, 1080 gal F.W.	6' 9"/2.05m.
Displacement (100% Fuel & 100% Water)	195 Tons approx
Displacement Light Ship	140 Tons approx
Fuel Oil Tankage	12500 gal approx.
Potable Water Tankage	3000 gal approx.
Lube Oil Tankage	120 gal
Contaminated Oil Tankage	120 gal
Black Water Tank	700 gal
Grey Water Tank	700 gal

HULL SUBDIVISION

The vessel's hull is subdivided by transverse and longitudinal compartments:

1. Forepeak
2. Fresh Water Tanks
3. Bow thruster Compartment
4. Guest Stateroom Compartment
5. Master stateroom Compartment
6. Fuel Oil Tanks Steering Gear Compartment
7. Engine Room
8. Steering Gear Compartment

HULL STRUCTURE

IN GENERAL, the following sizes and thickness shall be used in the hull construction: Note a 3/8-insert plate will be located over the strut and propeller area to reduce drumming.

KEEL	3/4" x 10" full length
STEM	3/4" x 10"
FLOORS	1/4" plate
SKEG (Depth 6")	sides 5/16", cross section 5/16", bottom ½"
BOTTOM PLATING	5/16" plate, up to the chines
SIDE, TRANSOM PLATING	1/4"
MAIN DECK PLATING	1/4" plate
BULKHEAD PLATING	1/4" plate and 3/16" where corrugated
TANK TOP PLATING	1/4"
TRANSVERSE FRAMES	Deck: 3"x 3" x 5/16"/Side:3" x 3"x 5/16"
TRANSVERSE FRAMES	Floors: 1/4"
ENGINE FOUNDATION	8" x 3/4"
LONGITUDINAL FLOORS	5/16"
DECK GIRDERS	3"x 3" 5/16" beams
BOTTOM LONGITUDINALS	5/16" plate
SIDE LONGITUDINALS	3"x 3" x 5/16" or plate
DECK LONGITUDINALS	5"x 3"x 5/16"
BULWARK FRAMES	4"x 1/4" plate
BULWARK LONGITUDINALS	3"x 1/4"
BULWARK CAP PLATE	2 1/2" stainless steel pipe

BULKHEAD STIFF-VERT	Corrugated
BULKHEAD STIFF-HORIZ	Corrugated
HAWSE PIPING	4" to 5"
ANCHOR PLATES	Stainless steel
CHAIN LOCKER	5/16"
RUB RAILS	"U" (9" x 3" x 9") x 1/4" stainless steel

SUPERSTRUCTURE

CABIN SIDE UPRIGHTS	4"x 1 1/2" & 3/16"
CABIN SIDE LONGITUDINALS	4"x 1 1/2" & 3/16"
CABIN TOP TRANS. FRAMING	4"x 1 1/2" & 3/16"
CABIN TOP GIRDERS	4"x 1 1/2" & 3/16"
CABIN TOP LONGITUDINALS	4"x 1 1/2" & 3/16"
CABIN SIDE PLATING	5 mm
CABIN TOP PLATING	5 mm

ENGINES

Two (2) Caterpillar engines model 3406 Electronic, A-rated 450 BHP @ 1,800 RPM, 24V elec. start, lubricating oil filters, dry exhaust manifolds, 24V alarm system, mechanical instrument panel.

REDUCTION GEARS

Two (2) Twin disk 5114 reduction gears Twin Disk or similar, 3.50:1 ratio, oil cooler, engine mounted.

Twin Disk Quick-shift gear, 3.50:1

PROPELLERS

R/H & 1 L/H, Bronze, 5-blade

ENGINE CONTROLS

Kobelt

Remote control SPA 10590 and remote control plugs.

Kobelt Electronic system for engine

HYDRAULIC STEERING

Hydraulic power steering shall be Kobelt, with steering pumps and rams

ANCILLARY EQUIPMENT

BOW THRUSTER

Bow Thruster 16”; American Bow Thruster 65 hp, driven off the main engine gears with electric clutch. The system supplies 65 hp when the main engines are at idle.

WINDLASS & GROUND TACKLE

2 Muir hydraulic anchor windlasses on foredeck, vertical capstans with horizontal chain gypsies
2 Muir capstans on aft deck
1 Plough anchor 285 kg.
1 Poole and Stockless anchor, 285 kg
Anchor chains: 328’ starboard, and 426’ port
Anchor chains are fitted with quick release pull out clips for emergency

STABILIZERS

American Bow Thruster stabilizer There are two pumps, one on each engine.

SEA CHESTS

(2) two sea chests in the engine room using 6” pipe. The sea valves are flanged bronze ball valves, 3-piece. Removable strainer plates are fitted to the bottom of the hull. The sea chests have blow down system. The chests are connected by a cross over pipe that feeds all of the raw water system. Each individual sea chest will feed the system with 50% blockage. Each sea chest can be isolated while underway and be cleared by the blow down system or by removing the sea strainer. All piping coming off of the sea chest is CuNi. In addition to the main main sea strainer in each sea chest, each individual user of raw water has its own finer filter.

FUEL OIL SYSTEM

The fuel oil system comprises a total of 12,500 gals in (5) tanks:
Two (2) main tanks (each 4000 gals approx.)
Two (2) forward tanks (one with 1780 gals and the other with 1740 gls approx),
One (1) day tank (980 gals approx.)

The system consists of four categories:
Transfer, Supply and Return, Fill, and Tank Sounding.

The fuel transfer system enables transfer of fuel from tank to tank:

Two (2) “Racor” fuel filters, Mod. 75-1000MA for main engines.

Two (2) “Racor” Mod. 1000 single filter per generators.

An Alfa Laval fuel system model MIB 303 is installed, with drain to dirty oil tank. The system can draw fuel from any tank and transfer fuel back to day tank only.

A unique feature is that the Alfa Laval can be set up to draw from the two main tanks and continually feed the day tank which then overflows to the two main tanks creating a clean/cool fuel loop. The day tank can operate the vessel in excess of 24 hours so that if you fill the tank every 12 hours you always maintain a minimum of 12 hours clean fuel in the system.

The day tank is above the fuel pumps and keeps positive pressure on all of the engines. In addition the day tank is located between and within the boundaries of the two centerline main fuel tanks. This creates a heat sink that keeps the fuel in the day tank an optimal temperature.

There is pump out and fill located on the main deck.

Oily water tanks- 240 gallons

INSULATION

ENGINE ROOM

One coat of Dumb-dumb
One (1) layer 1 foam with 1lb/sq. ft. sheet lead
One (1) layer white 30% perforated aluminum sheet
The air stacks are to be coated with Dumb-dumb
There is a lead sheet in the main saloon over the engine room

SUPERSTRUCTURE

Cabin Sides - One (1) layer 2” rock wool
Overhead - One (1) layer 2” rock wool
There is to be Dumb-dumb sprayed in main saloon

Refit, 2019

Tank treatment

Black water, gray water and fresh water tanks were sand blasted to bare steel, primed and painted with specific paint for each use.

Air Conditioning System

Changed air handler in the galley for a bigger unit - 24K, and installed new control board and displays.
Replaced 8 air handlers (1 x 24K, 2 x 12K, 3 x 10K and 2 x 18K) for new units with new control boards and displays.
Refurbished 3 air handlers (3 x 24K) by removing them, acid cleaned and used Microban for mold remediation, reinsulate units and supply and return lines. Installed new control boards and digital displays. Removed and acid cleaned the remaining newer 3 units.

Galley refrigeration

October 2019: Galley refrigeration replaced.

Two new Samsung refrigerator/freezer units

Watermaker

Serviced the units, replaced all membranes and inspected all fittings.

Paint

Bottom paint

Several rust spots treated, primed and repainted throughout the yacht.

Deck drains were sand blasted to bare metal, primed, and a ceramic coat was applied on the inside. The drain surroundings were ground, repaired, treated, primed and repainted.
Several doors were removed for blistering. They were ground, primed, painted and reinstalled.

Engines and Generators

Engines were serviced in February 2019 by Cat dealer PANTROPIC and following were performed:

1. Drain coolant, remove thermostat housing and replace regulator
2. Change oil and oil filters, zincs and plugs.
3. Replace air filter elements
4. Take oil and coolant samples. (All tested ok)
5. Inspect engine mounts. (Inspected OK)
6. Inspect starter motor (Inspected OK)

Generators were serviced in February 2019 by Cat dealer PANTROPIC and following were performed:

1. Clean and inspect the Heat Exchanger

2. Clean and test aftercooler
3. Replace raw water impeller
4. Replace V belt
5. Change oil and oil filters
6. Take oil samples (Tested OK)
7. Inspect engine mounts. (Inspected OK)
8. Inspect back end (Inspected OK)

Hydraulic System for Bow Thruster and Stabilizer. Inspected and Serviced February 2019

Inspect and diagnose and adjust bow thruster setting.
Both main hydraulic pumps were replaced for new units.
System was flushed and oil replaced for new.
All system pressures checked and adjusted to manufacturer's specs.
Cooling pump replaced for new one.

Crane

Opacmare crane was removed and completely dismantled for service, February 2019.
All cylinders were opened, serviced with seals replaced and pressure tested.
All parts were sanded, primed and repainted.
Hydraulic pump replaced for new one.
Crane was reassembled, installed and tested.
Manufacturer tech did final test and settings onboard.

Electrical

All panels and sub panels were inspected, February 2019 and modifications made to bring them to current ABYC standards and compliance.
Several breakers were replaced and correct bus bar installed.
New front plates with labels were installed.
Electronics battery bank charger replaced for new unit and batteries replaced for new ones as well.

Interior/Carpentry

- The crew cabin and head on the lower level was completely redone with a separate shower stall.
- A TV lift was installed on the main salon cabinet and TV replaced.
- New carpets were installed in the main salon, master and sky lounge
- The washer and dryer on the lower level were replaced.
- The dryer was upgraded for a vented unit from the existing condensating one and vent piping was installed all the way to the outside.
- A new washer and dryer were installed in the port side cabinet on the Sky Lounge.
- The master starboard side closet was modified, drawers were installed and a linen cabinet installed facing the door entry.
- Several wood repairs around the wood framing were performed.
- A sofa/bed with motorized lift for storage underneath was installed in the sky lounge

- Wind blocker side doors were removed, fixed, painted and reinstalled.
- Wheel house chair and sofa upholstery were redone, new with a dark blue finish.
- New blinds/curtains were installed in the main salon, master and sky lounge.
- New sofa and cabinet was installed on the main salon starboard side
- New Kenwood sound system installed in pilothouse

Teak decking

Flybridge teak between stacks was serviced, caulking removed and replaced as needed.

Miscellaneous

Hot tub was installed on the fly bridge.
Electric barbeque grill replaced for gas unit.
Kayak bracket installed on the side of the upper deck (both sides)
Second freezer installed in the lazarette.
Fire system checked and engine room fire dampers were serviced with springs replaced. System checked OK and fully operational.
Security systems were serviced, inoperative sensors were replaced, the keypads were replaced for new. System was reprogrammed to the English language and tested OK
Engine exhaust pipes serviced. Pipes were removed, rebuilt, primed painted and reinstalled.
Spring shocks for engine room door were replaced for new ones with correct length and pressure.
Windshield wipers arms and blades were replaced by new ones.
Inside lighting replaced with LED light bulbs.
Chain was removed and regalvanized. Swivels were checked and/or replaced

Update: October 2019:

- Bottom sandblasted to bare metal and Hempel bottom application applied.
- Props and shafts pulled.
- Props serviced and cutlass and shaft bearings replaced.
- ABS tail gear and machinery survey.

MAIN DECK

Aft Deck

A roomy aft deck with dining area, wet bar and Beko under counter refrigerator

Main Salon

A comfortable seating area leads to the dining salon forward, and galley forward of the dining salon. The dining salon accommodates 8 guests, and includes a Scholtès wine cooler. The saloon was just modified to allow for a large pop up TV, new seating was installed with power lift up to access extensive storage under and a new sideboard was installed.

Galley:

-New refrigeration and freezers installed.
-Smeg range with ceramic cooktop
-Hotpoint hood extraction
-Bosch Silence plus dishwasher
-Krüshr trash compactor
-Irinox Fresco multi-function food flash freezer cooler/heater

Crew mess:

Settee for 6

LG Flat Screen tv

Coffee Maker

Electrolux RE80 under counter refrigerator

ACCOMMODATION

AB Normal can accommodate 8 owners/guests in 4 staterooms when the skylounge is in VIP Stateroom mode, and 4 crew in the 2 crew quarters in the forecastle and additional crew/ guides in the crew service area. Her large sky lounge has the versatility to be used as a 4th queen VIP stateroom, an office, workout area or home theater. The interior has Majilite panel overheads, a combination of granite and carpeted floors with the exception of the teak and holly in the wheelhouse. Bulkheads are American Cherry and Majilite.

All of the ensuite accommodations enjoy much larger heads and showers than found on most vessels in this size range. On some of the other vessels in this series the owners move between the lower master and the VIP depending on where the vessel is cruising and in one it was permanently changed to a large master stateroom.

Master Cabin

Comfortably situated midships on the lower deck, the roomy full beam master cabin has a king sized berth, a seating area, his and her heads and extensive hanging lockers. There are three large closets plus the walk through and large amounts of drawer and additional storage space. The "her" head has a tub/shower and a large walk through closet which has just been upgraded with additional drawers. The "his" head has a comfortable shower and, like the other heads, is done in granite.

VIP Guest Cabin

To starboard, forward of the master cabin, is the VIP guest suite with queen sized berth two hanging lockers and en-suite head and shower.

Guest Cabin

To port forward of the master cabin, the guest cabin has twin berths and ensuite head and shower. The beds are full size single beds that use standard sheets and have comfortable room between the beds.

UPPER DECK

The skylounge is situated behind the pilothouse. This is a comfortable area to view the passing scene while underway. It can also be converted to a VIP guest room with queen sized berth to accommodate extra guests. A new Miele washer and dryer with outside vent were installed in custom cabinet with storage behind it for ironing board and other items.

Pilothouse

Fully equipped with navigation and communication equipment. There is a seating area at the back on the port side. A Portuguese bridge surrounds the Pilothouse and skylounge.

FLYBRIDGE

Steering station forward, with lounging area, sun deck and wet bar behind.

U-line under counter refrigerator

Scotsman AC46 ice maker

New gas grill

Electronics

BRIDGE

ABT TRACSTAR thruster control

Thruster control station ABT TRAC

Thruster joy stick

ACR spotlight

2xCAT engine displays

CCTV DR240,

Furuno Satellite compass

Furuno radar 120 Km range

Furuno X band with ARPA function

Furuno Navnet multi-function unit

Furuno FS-1503 SSB radio

Furuno NX-700 Navtex receiver

Furuno FA-150 AIS system

Furuno Universal AIS FA-1560

Furuno radar/ARPA FAR-21x7(-BB) series,

Furuno NavNet

Furuno satellite compass 5” SC-50,

2 x Icom M602 VHF radios

Kahlenberg M-511A whistle control,

Kenwood KDC-BT365U sound system

2 walk around hand held units, Kobelt throttle controls

Kobelt jog lever

Rudder indicator Kobelt 7175-MA,

5 x MIC II VHF handsets

Richie Magnetic compass with 6” card

Time zero chart plotting system Windows based

Sailor message terminal 6006

Simrad IS 20 analog wind speed and direction indicator

Simrad AP50 autopilot,

4 x 17" VEI displays

FLYBRIDGE ELECTRONICS

ABT TRACSTAR thruster control

Thruster joy stick

Thruster control station ABT TRAC

2xCAT engine displays

Danforth magnetic compass 5” card

Furuno Navnet multi-function unit

1 x Icom M602 VHF radio

Horn button

2 walk around hand held units, Kobelt throttle controls

Kobelt jog lever

Rudder indicator Kobelt 7175-MA

Simrad AP50 autopilot

2 x VEI LCD displays

ENTERTAINMENT ELECTRONICS

The main salon, master stateroom and upper salon are provided with full Satellite TV control.

The main saloon has a new TV

The guest staterooms are provided with satellite system TV. However, the cables are already run to these cabins, so upgrades are possible.

The main salon entertainment system provides for the external speakers on the aft deck, upper deck and sun deck each provided with local volume control.

The master stateroom has an LG TV with sound bar.

ELECTRICAL

The ship has two (2) Caterpillar 49 Kw generators which are star wound to produce 230 volts at 50 cycles three phase. This is supplied to the main switchboard via exclusive 160 Amp ABB over current protection breakers located in the main switchboard.

When the yacht is alongside it can take on shore power via two 100 Amp shore inlets. Input selection is provided by the use of an input selector switch and phase rotation switch starboard side lazarette. Each input is provided with exclusive 125 Amp over current protection breakers. The shore input grounds are fitted with 100 amp galvanic isolators. The shore power inputs are each fitted with Hubbell 4 core 2 AWG cables fitted with retractable Glendenning CM-8 cord reels are exclusive storage bins. The shore input is conditioned through the LEF 65Kva isolation transformer; this is placed onto the main bus using a 125 amp ABB main switchboard mounted over current protection breaker.

MECHANICAL EQUIPMENT

American Bow thruster 65 HP
2 Idromar watermakers, 1585 and 1135 gallons per day
Hydraulic passarelle, starboard aft

LAUNDRY

A new Miele washer and dryer were installed in the port side cabinet on the Sky Lounge.

The washer and dryer on the lower level were replaced for new ones. The dryer was upgraded for a vented unit from the existing condensating one and vent piping was installed all the way to the outside.

Tenders

17’ Novamarine tender with Yanmar 4JH3-DTE

VHF

SWIM LADDER

Manufacturer: Custom
Power pack: Amer model MP80S/2 self-contained integrated into swim platform

SAFETY & FIRE EQUIPMENT

2 x Twelve (12) man SOLAS life rafts

2 x Life Buoys with light

2 x Life Buoys with light and smoke

30 x Life jackets adult

8 x Life jackets child

14 x immersion suits

12 x survival suits

406 Mhz EPIRB

New Float Off EPIRB August 2019

Distress signal flares and smoke in date

(2) firefighting suits with air bottles and masks, one new August 2019.

- All backpacks replaced.
- All breathing apparatus replaced on old suits, August 2019

Small fire axe

10 x 4 Kg handheld powder fire extinguishers

5 x 10 Kg handheld powder fire extinguishers

2 x 10 Kg handheld CO2 fire extinguishers

Fire and general alarm buttons located in various places throughout the yacht

New MCA medical Kit, 2019

Panel outside engine room with emergency shut down for the following:

- Quick closing valves
- Ventilation
- Generator

Fire alarm panel in wheelhouse, guest entrance lobby and crew mess with smoke/heat sensors in the overhead throughout the yacht.

3 x Seawater firefighting outlets with hoses and nozzles

FM200 fire system for engine room tested July 2019

Fire pump

Fire dampers

Audio/Visual Signals:

- Ship's bell
- International running lights

Ample up to-date handheld flares

MISCELLANEOUS

Emergency grab bag, new January 2019

Panel in pilothouse indicating open doors

Emergency DC lighting

High water alarms in bilges and cofferdams

Bilge and fire pumps are interchangeable through properly labeled manifolds.

Safety plan with instructions and locations of safety equipment

EXCLUSIONS

Owner's personal items and artwork excluded.

AB Normal

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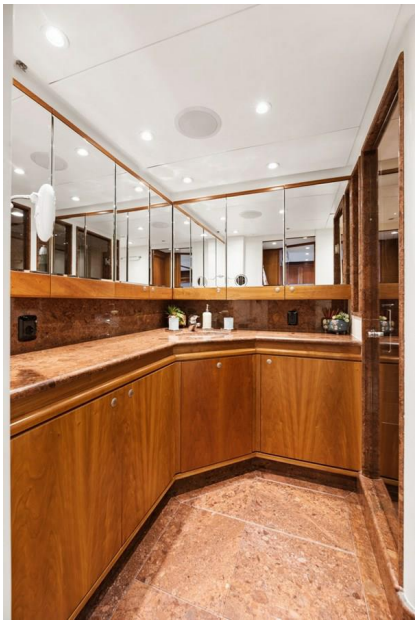

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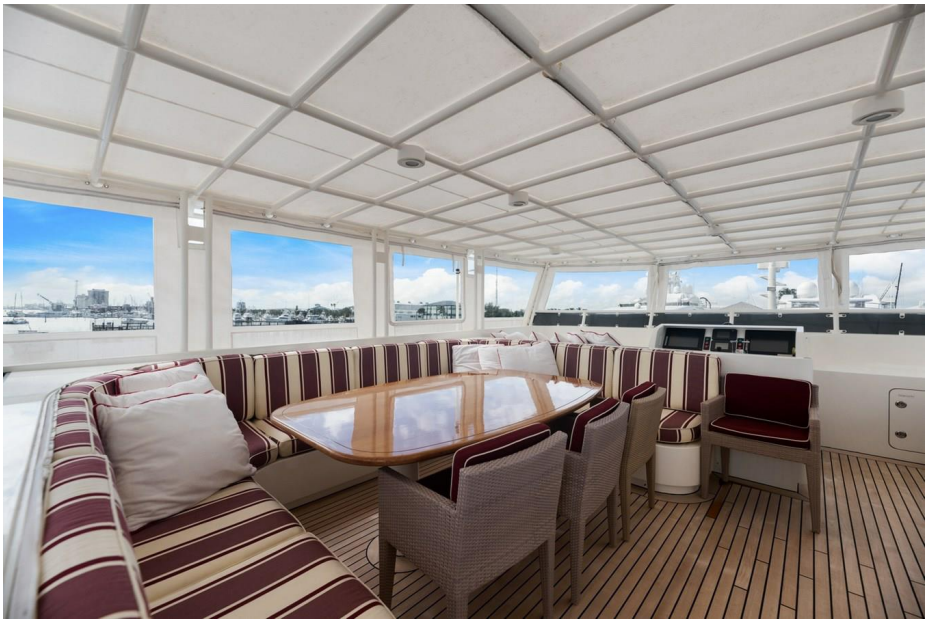

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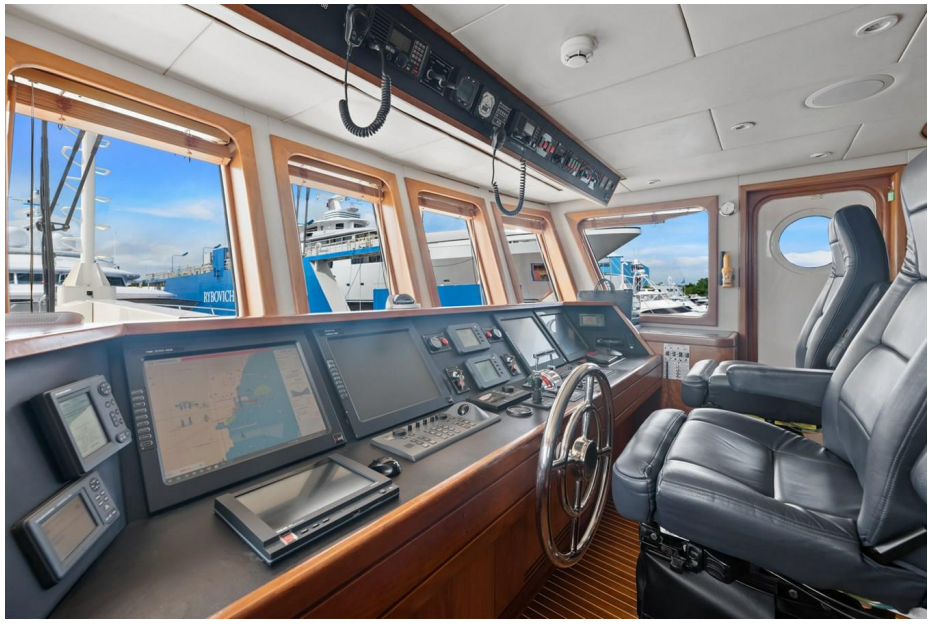

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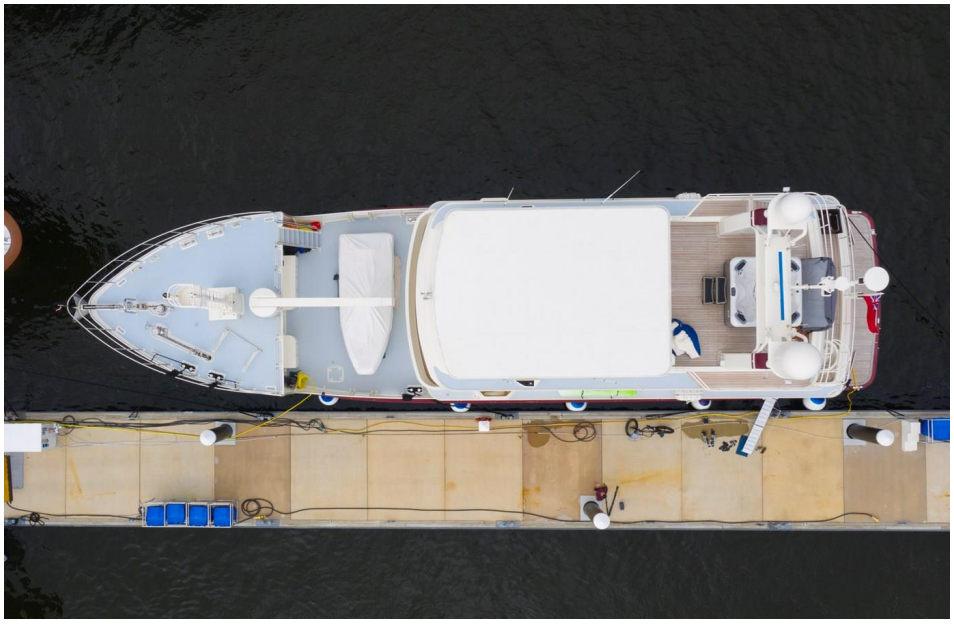

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