

SAN JUAN YACHTS

Specifications for the Construction Of The SJ48 IPS Motor Yacht

DIMENSIONS

LENGTH OVERALL	51'-10"	15.58m
LENGTH ON DECK	48'-0"	14.62m
LENGTH WATERLINE	44'-3"	13.48m
BEAM	15'-6"	4.72m
DRAFT	4'-0"	1.12m
DISPLACEMENT	40,000 lbs.	18143 kg
FUEL CAPACITY	720 US Gallons	2725 liter
WATER CAPACITY	120 US Gallons	454 liter
CRUISING SPEED	30 Knots	
PROPULSION	Twin Volvo Penta IPS 900 (700hp) D11 Aftercooled Diesel Main Engines	

*Specifications may be subject to change

BUILDER:

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DESIGNERS:

Gregory C. Marshall Naval Architect Ltd.
&
SANJUANYACHTS Design Team

Rev9/1/10

BUILDERS COMMENTS

SanJuanYachts is pleased to introduce the new SJ48 IPS, the latest in our series of fast cruising motor yachts.

The demand for high quality “lobster boat” styled motor yachts in the 36 to 50 foot range prompted us to design and build our SJ48. The new SJ48 IPS combines the lobster boat styling with state of the art design, engineering and composite construction, with Volvo Pentas proven IPS propulsion system. Our hull provides comfort and sea keeping in difficult sea conditions yet allows for higher speed cruising in calm to moderate sea conditions. Not only will our SJ48 IPS maneuver and handle like a sports car at all speeds to 40 knots, but it also provides a safe, comfortable, dry ride in the no-nonsense environment of any ocean or waterway.

At 51’-10” L.O.A. x 15’-6” Beam, our SJ48 IPS offers a premium level of interior space in a highly functional interior/exterior layout. Our standard used in building our interiors offers unmatched care and craftsmanship. This standard includes fit and finish of joinery and systems, which is normally only available in the mega-yacht market.

Our SJ48 IPS offers an extensive list of standard systems and equipment, most of which are items normally considered to be optional equipment by others.

Performance for the SJ48 IPS includes cruise speeds ranging from 15 to 30 knots made possible by its lightweight resin-infused composite structure and twin Volvo Penta IPS 900, D11 aftercooled diesel main engines rated @ 700 hp each.

The new SJ48 IPS offers increased speed with less horsepower resulting in reduced fuel consumption up to approximately 30%. IPS also provides faster acceleration, lower levels of sound and vibration and lower emissions per nautical mile. Low speed maneuvering is easier than ever before with a one hand joystick which controls fore and aft movement, sideways, diagonal and 360 degree rotation.

The SJ48 IPS is built in the USA using the American Bureau of Shipping Rules as guidelines. Machinery and equipment are installed using the rules and regulations of the United States Coast Guard and the American Boat and Yacht Council as guidelines.

The result is a safe, high performance, “greener” personal motor yacht for the boat owner looking for fit, finish and attention to detail.

HULL

The SJ48 IPS hull has been designed and computer modeled to be both handsomely styled and capable in a broad range of sea conditions. The traditional flared bow with fine entry and tumble home aft is complemented by the hydro-dynamically efficient underbody. Tooling for the entire boat was modeled and cut by a computer controlled 5-axis router creating the most fair and precise parts available in the industry today. The SJ48 IPS hull is formed using a Kevlar®/E-glass and Corecell® foam core composite vacuum infused with vinyl ester resin. Dupont Kevlar®/E-glass hybrid is used to greatly increase the strength of the hull against damage caused by impact. Our resin infusion process yields strong lightweight parts with high glass to resin ratios. The core is removed and replaced with solid glass and extra laminations in areas of major penetrations and high stress. Watertight structural bulkheads separate the hull into damage control zones with dedicated bilge pumps. Structural bulkheads are built using Corecell® foam core with E-glass skins infused with vinyl ester resin. Longitudinal and transverse stringers are an E-glass PVC and Corecell® foam core composite. The swim step is built using Corecell® foam core with E-glass skins infused with vinyl ester resin. The walking surface of the swim step is teak. The swim step is fastened to the hull using stainless steel fasteners and three custom stainless steel struts for support. The entire structure of the boat is built using wood free composites.

DECK

The deck is a one-piece vacuum infused composite molding using E-glass and Corecell® with vinyl ester resin. The hull is joined to the deck using an engineered flanged box joint and is bonded using a high strength adhesive with stainless steel mechanical fasteners. This provides a permanent, watertight hull/deck joint. The walking surfaces of the foredeck, side decks, cabin top and aft deck are molded non-skid with 1" waterways. Teak decking is also available as an option. The walking surfaces of the cockpit and pilothouse have teak decking as standard.

COCKPIT AND DECK

The large cockpit was designed to allow ample room for sitting, dining, fishing and sunbathing. An opening transom door is provided for ease of boarding. The built-in transom seat hinges forward and opens mechanically to provide a safe, secure, underside dingy stowage garage for quick launch and retrieval of a shore boat, personal watercraft or mountain bikes. A removable electric davit system with remote control is provided for launch and retrieval of the shore boat. The davit, is designed to be easily removed from its aft deck socket and stowed in the transom garage. The shore boat garage also provides gear stowage. A hot and cold cockpit shower is located at the transom. Sitting and sunbathing space is also available at port and starboard sun pads as a standard. Using the Volvo Penta IPS system has

COCKPIT AND DECK, CONT.

provided room for optional cockpit layouts including sunpads, cocktail and dining tables, and a built in BBQ with storage locker and drawer.

Removable hatches located beneath the seating or sun pad provide additional access to the engines for service. A flush hatch in the deck provides easy access to the main engine compartment and generator. Port and starboard cockpit bulwark lockers allow for storage of fenders and mooring lines. Teak toe-rails and 1-1/4" solid stainless steel half-round guards are fastened through the hull and deck flange. Eight polished stainless steel deck cleats are provided; two at the bow, four amidships and two at the stern. Custom stainless steel mooring line chocks are located at the bow and amidships. Stainless steel chafe guards are fitted as required. Two stainless steel deck fuel fills are located starboard side amidships. The water tank fill and holding tank dockside discharge are located on the starboard side forward. The foredeck anchor handling system consists of a stainless steel bow roller with a stainless steel "Bruce type" anchor and 250 feet of galvanized chain. A Muir 2500 anchor windlass is standard. Three Lewmar Low Profile deck hatches are located over the forward stateroom and the two heads. Each is equipped with retractable screens and privacy shades. Six opening stainless steel portlights with screens provide ventilation to the cabin area. A teak flagpole with stainless steel socket is supplied aft with a stainless steel flagpole supplied forward at the bow.

PILOTHOUSE

The pilothouse is built of an E-glass, Corecell®, resin infused composite providing a stiff, strong, lightweight structure with sound and vibration dampening qualities. The starboard helm seat provides seating for two with storage below. The pilothouse seat storage includes a chart / computer accessory locker and also storage under the seat cushion. The main electrical panel is located on the backside of the pilothouse helm seat. Aft of the helm seat is the bar area with counter, bar sink, icemaker / beverage fridge, drawers and storage cabinet beneath. The portside settee with high gloss teak table provides seating for six with panoramic views. The portside of the pilothouse, forward of the settee, is open to the below decks galley providing daylight and additional ventilation. A large retractable composite sunroof with tinted glass in the pilothouse results in all-weather versatility. Vents in the overhead provide additional fresh air ventilation to the pilothouse. The pilothouse helm station provides for a complete array of electronics and instruments, and offers 360-degree visibility. Pilothouse windshield and side window glass is light gray tinted, 1/4" bonded, tempered glass with ceramic frits. Non-tinted 1/4" tempered glass is bonded into the "scallops" on the aft sides of the pilothouse. The pilothouse is secured with removable clear rigid panels and a frosted glass door with locking handset located aft of the settee and bar area. A hinged composite mast that folds down for low bridge clearance is located on the pilothouse roof.

EXTERIOR JOINERY

Teak toe rails are blind fastened to the deck edge from the stainless stem bow fitting to the transom. Teak trim runs from the port and starboard aft sides of the pilothouse forward around the forward cabin top. Teak cap rails are used on the top of the cockpit bulwarks, inboard of the side decks and transom and are blind fastened.

Handrails located on the pilothouse roof and cabin top are custom stainless steel blind fastened. All exterior teak is bright finished solid teak, blind fastened.

The pilothouse joinery is meticulously built from hand-selected teak with bright finish. The pilothouse settee table is built using bright finished teak. The helm and dash area is finished in teak. Interior pilothouse sides are bright finished teak panels with solid teak window trim. Teak sea rails are provided at the edges of all counter surfaces. Teak battens support the pilothouse overhead panels, which are covered in Majilite fabric or equal.

INTERIOR JOINERY

The interior is trimmed with teak and finished to a satin sheen. The hull sides forward in the master stateroom and in the starboard side guest stateroom are sheathed with solid teak "ceiling" strips. The below decks cabin sole is satin finished teak with holly splines. Countertops are surfaced with solid surfacing material with teak rails. The below decks general arrangement offers forward and starboard side staterooms with queen berths, with a galley and two heads complete with separate showers. Both staterooms have ample storage in hanging lockers and drawers. Storage is also provided beneath the berths. Solid teak louvered doors are used throughout for privacy and ventilation. The master stateroom forward provides an "island queen" berth arrangement with two large hanging lockers and further storage provided in drawers and lockers. The master stateroom has two screened, opening stainless steel port lights and a screened Lewmar Low Profile overhead hatch providing daylight and ventilation. The starboard side guest stateroom provides a queen berth arrangement that folds up converting the queen berth into a settee, with a hanging locker and stowage in under berth drawers and lockers. An upper pilot berth provides an additional single berth. The centerline bulkhead is a two panel pocket door that opens the guest stateroom to the galley, converting it into a below decks settee, den or entertainment area. A screened, opening stainless steel port light provides daylight and ventilation to the guest stateroom. Berth cushions/mattresses are 5" foam composites with a wide variety of fabrics available for berth upholstery. Overheads are Majilite fabric or equal with teak trim supports.

GALLEY

A three-burner electric radiant heat cook top is standard along with a stainless steel Sharp convection microwave oven mounted above. A Fisher & Paykel dishwasher is located in a teak cabinet below the cook top. A double stainless steel sink is supplied with hot and cold water through a Scandvik mixer with a pullout-extending faucet. An abundance of storage is provided in above counter cabinets, below counter cabinets and drawers.

The refrigerator is a custom stainless steel, front loading, refrigerator and drawer freezer with a water cooled remote mounted compressor. A Splendide combination washer / dryer is located below and behind the companionway steps. Countertops are solid surface material with teak sea rails. An opening port-light with screen in the galley provides ventilation. The galley is open above to the pilothouse providing additional daylight and ventilation.

HEADS

The port and starboard heads with separate showers are designed to be easily cleaned and maintained. Tecma heads are plumbed directly to the holding tank with shore side pump out fitting on deck. A discharge pump is provided for overboard use where allowed. The holding tank is sounded with an electronic tank level gauge. Stainless steel sinks are supplied with hot and cold water. Countertop materials are solid surface material with teak sea rails. The separate showers with seats drain to a sump and are discharged via a drain pump. Mirrors and lockers with shelves are provided in each head. The heads are provided with stainless steel screened, opening port lights and overhead screened Lewmar Low Profile hatches for daylight and ventilation.

ELECTRICAL SYSTEM

An Onan 13.5 KW marine diesel generator and bank of four 8D AGM batteries provide ship's power. Battery switching is located in the engine room. Four GPL-3100T AGM batteries provide engine-starting power. Isolation is provided between the lighting and house circuits and the starting bank with the provision for emergency starting if necessary. Charging of the electrical system is done through the genset and the alternators mounted on each engine as well as a Magnum 4000 pure sine wave battery charger/inverter.

A Glendinning "Cablemaster" shore power cord storage system is provided starboard side aft in the cockpit to provide power to 220V equipment and 110V outlets in each cabin as well as the galley, heads and pilothouse, where shore power is available. Switching for both the 24V and 220V are provided at the main distribution panel located on the aft side of the helm seat and is equipped with both a voltmeter and ammeter.

ELECTRICAL SYSTEM, CONT.

All circuits are protected with circuit breakers and main disconnects. All hull penetrating marine hardware is bonded and connected to a sacrificial zinc plate located at the transom below the swim step. Interior lighting includes LED overhead recessed lights positioned in the pilothouse and cabin areas. The lights are all conveniently switched and dimmable. Bulkhead mounted reading lights are located in the two staterooms over the berths. LED galley lights are located above the counter under the cabinets. LED courtesy lights illuminate the walkway from the cockpit to the cabin sole. LED lighting is provided for the engine / mechanical compartment and lazarette. LED navigation lights meeting International Rules are provided. The red LED overhead lights above the helm and pilothouse table allow for night navigation.

A Maretron NMEA 2000 vessel monitoring system is installed as a “backbone system” which can be further expanded for additional vessel system monitoring and control. The standard Maretron system monitors main engine gauges, generator, tank levels (fuel, water, waste) bilge high water, fire, and DC power. This system may be expanded to monitor and control other systems as an option.

Two Exalto pilothouse windshield wipers with washers are supplied. A Fusion audio/video system is provided as standard equipment. Speakers located in the guest stateroom, cockpit, pilothouse and galley provide zones to the stereo system. Two Fusion AV700 head units provide video to recessed flat screen TVs in the master stateroom and guest stateroom.

An ACR RCL100C spotlight with remote control is standard equipment. A budget for the installation of navigation electronics packages from most electronics manufacturers is provided and may include computers, autopilot, GPS, VHF, chart plotter, sounder / fish finder and radar systems.

MACHINERY

The main engines are twin Volvo Penta IPS 900 (700hp) D11 aftercooled diesel engines. The main engines are equipped with jack shafts running aft to IPS 2 pod drives. The main engines are painted white. The four counter rotating propellers (2 per pod) are bronze, four bladed wheels. The engine compartment is protected by an automatic fire extinguisher system. An oil transfer pump system is standard for main engine and transmission oil changes.

One fully baffled aluminum fuel tank provides 720-gallon capacity with a double starboard side deck fill for fast refueling. The tank is sounded with an electronic fuel gauge as well as a sight tube in the engine room. In-line double Racor fuel / water separators are provided for each engine. The engine compartment is well lit and is easily accessed via a flush cockpit hatch. Large ‘dry patches’ are located under the cockpit seating / sun pads for additional engine access during servicing. Engine exhaust is underwater through the pods.

MACHINERY, CONT.

The IPS pod drive system makes the SJ48 IPS extremely maneuverable with electronic joystick control as standard equipment. Two Cruise Air reverse cycle air conditioning units are provided as standard equipment and offer both heating and air conditioning.

SOUND INSULATION

The cored hull, deck and superstructure construction provides for excellent sound and vibration damping. The main engines and machinery are isolation mounted to reduce noise and vibration. The engine compartment is lined with sound insulation to reduce noise levels providing quiet operation. Engine compartment hatches are lined with sound insulation and are gasketed to reduce noise levels. The pilothouse is lined with sound insulation material.

CONTROLS AND INSTRUMENTS

Transmission and throttle control for the main engines is achieved using Volvo Penta electronic controls. The electronic controls offer shift and throttle control with built-in safety features for use during emergency maneuvers. Electronic engine synchronization is standard. Maneuvering and docking of the vessel is simplified with the IPS electronic joy-stick located at the helm. The Volvo Penta DPS (Dynamic Positioning System) keeps the vessel on station while tracking its position via satellite is available as an option. The main engines are alarmed to warn of engine problems. The electronic main engine instrument control panel located at the helm displays RPM's with engine oil pressure and temperature, gear oil pressure and temperature, gallons per hour and DC volts. A 4 1/2" Ritchie Navigator compass is mounted forward of the helm console. Kahlenberg dual trumpet air horns are standard equipment.

The electronic steering system is provided by Volvo Penta. An 18" stainless steel destroyer type wheel with varnished mahogany trim is provided. A Raymarine autopilot system is standard equipment.

PLUMBING

120 gallons of fresh water are stored in a baffled stainless steel tank with an electronic tank sounding gauge. A dual water pump system provides water pressure and redundancy. Hot water is supplied by two ten-gallon hot water heaters. Both showers drain to a sump pump system for discharge overboard. Three Rule 3700 GPH electric bilge pumps with Rule Ultra automatic float switches are located forward in the cabin, aft in the engine compartment and in the lazarette. Bilge alarm system will produce an audible and visual alarm at the helm if water is detected. Bronze thru hull fittings throughout are U. L. listed, and fitted with seacocks. A Sea Recovery Aqua Matic 700 water maker is provided as standard equipment. Fresh water wash-down systems are located on the foredeck, cockpit and skiff garage.

PAINTING

All exterior teak trim is finished to a high gloss using multiple build coats of UV inhibited epoxy and multiple coats of Imron clear acrylic providing an extremely hard, low maintenance finish. The deck and superstructure are hand faired to the highest industry standards and are painted with Imron paint. The hull is painted in the owner's choice of standard Imron paint colors. Additional hull paint colors are available as options. Owner may choose a double boot stripe painted in standard deck and superstructure color. Two coats of Pettit premium yacht bottom paint are applied according to owners color choice from standards offered. Name and hailing port in "gold leaf" vinyl on the transom is included in the commissioning.

UPHOLSTERY & CANVAS

All pilothouse helm and settee cushions are covered in Spinneybeck leather. All interior below decks cushions and mattresses are covered in Sunbrella fabric. Exterior cockpit cushions are covered in appropriate outdoor Sunbrella fabric to resist moisture. A canvas cockpit cover is supplied in Sunbrella material to cover the entire cockpit aft of the pilothouse. Separate Sunbrella canvas covers are provide to cover cockpit cushions during inclement weather. A Mermet sun screen material windshield cover provides privacy and UV protection to the pilothouse.

COMMISSIONING

All San Juan Composites yachts are commissioned, launched and extensively sea trialed before delivery in the San Juan Islands. Standard commissioning items include:

- Custom owner's manual and equipment files
- Four 10" fenders with fender covers
- Eight 5/8" dock lines (8 x 50')
- Anchor with 250' of chain
- Eight adult and two child's life jackets
- Oil discharge plaque/waste discharge plaque
- Four 2.5 lb. ABC fire extinguishers
- Flare kit
- First-aid kit
- One waterproof flashlight
- Navigation Rules
- Bell