

172 JAN REC'D

SPECIFICATION  
FOR THE CONSTRUCTION OF A PALMER JOHNSON 40  
FIBERGLASS SLOOP

DIMENSIONS

LENGTH OVERALL	(Approx.)	39' 6 1/4"
LENGTH WATERLINE	"	28' 6"
BEAM	"	10' 10"
DRAFT	"	6' 4 1/2"

DESIGNER: SPARKMAN & STEPHENS, INC.

BUILDER: OY NAUTOR AB - FINLAND

PALMER JOHNSON INCORPORATED  
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Note: These specifications are believed to be correct and we will do our utmost to make sure that the vessel is built to these specifications. However, there may be small alterations and changes on the finished boats, and we reserve the right to make these without notice.

## GENERAL CONDITIONS

These specifications are intended to supplement the design. While details may be changed as the result of experience in construction or use of the boats, the standards of quality and completion are maintained to furnish a yacht ready for service. Construction standards will comply with the recommendations of Sparkman & Stephens, Inc., design architects.

The Owner's authorized agent will have access to the yacht and everything pertaining to the yacht at all reasonable times. Every facility will be afforded inspectors for the prosecution of their work.

The Builder reserves the right to approve or reject any changes in the construction of the boat when these are asked for after construction has commenced. The Builder guarantees skilled workmanship in keeping with the best yacht practice, and in conformity with specifications.

INSURANCE - The Builder will maintain insurance on a yacht contracted for by an Owner including all items furnished or delivered by owner, appropriate to the value of the owners investment until the yacht is delivered.

DAMAGED WORK - The Builder will protect all work and be responsible and make good any or all damage from whatever cause, to any part of the yacht or its equipment or furnishings.

CLEANING - The Builder will at all times keep the yacht reasonably clean throughout. Particular care is to be taken that all chips, shavings and other foreign matter are removed and all parts cleaned before application of paint, and that when the yacht is delivered, her bilges and pockets are free from such matter.

ACCESS TO COMPARTMENTS - Arrangements for access to and for cleaning out and painting all compartments and all parts of the vessel is provided wherever practical. Floorings are fitted with suitable hatches.

Access to the engine, steering gear and all other equipment that may require services of any kind will be provided.

Care is taken in locating pipes and other parts to avoid blocking of access. If necessary, removable sections are utilized.

TESTS - The standard machinery will be operated to the satisfaction of the Builder, in the water, running continually for one (1) hour and at as much speed as is practicable without undue heating. Steering and reversing tests will also be run. All standard auxiliaries such as pumps, etc., will be thoroughly tried out.

The yacht will be properly rigged with Standing Rigging.

During tests, the yacht is at all times in the care, custody and control of the Builder.

WARRANTY - If any defective workmanship and/or materials is discovered within six months after delivery, except for the Owner-furnished items or installation of same, or unless due to negligence or other improper act of the Owner or any other user of the vessel, the Builder shall accept responsibility thereof. Under such circumstances, the Builder shall either procure the repair or authorize such a repair to be made in a way agreed upon in writing between the parties. The Builder shall not be responsible for any proprietary articles which shall bear the customer guarantee of the manufacturers.

## HULL CONSTRUCTION

GENERAL - Scantlings, materials and workmanship throughout are consistent with the construction of a light hull, but without any sacrifice of strength or stability.

FIBERGLASS CONSTRUCTION - The fiberglass reinforced plastic hull does have scantlings approved by Lloyd's Register of Shipping for Class 100A1 Reinforced Plastic Yacht and the yachts will be delivered with Lloyd's Register Hull Molding Certificate. The resins used are suitable for marine use.

COLOR PIGMENTS - The color pigments are of an approved type and will be used only in the gelcoat in the deck, deckhouse, cockpit, topsides and boottop, and cove stripe.

HARDWARE AND FASTENINGS - All hardware and fastenings will be marine type above and below deck with quality finish.

BALLAST - The ballast keel is a lead casting with antimony. All keel bolts are stainless steel.

KEEL PLATES - Stainless steel docking plates are installed on keel.

LIMBER HOLES - Limber holes are cut where necessary so that all water will drain to low point.

BILGE ACCESS - Maximum possible access will be provided to all portions of the bilge.

ENGINE BEDS - To be fiberglass. Special care is taken to assure rigid foundation and proper adhesion to hull.

BULKHEADS (STRUCTURAL) - Structural bulkheads are of marine grade water-proof plywood. Butts and seams are spliced with tongue and grooved joints.

CHAIN PLATES - Are stainless steel flat bars thru-bolted to brackets matted to hull.

TOE RAIL - Teak

MAST STEP - Fiberglass and galvanized steel

RUDDER - The rudder is fiberglass with stainless steel gudgeons and Pintles with bushings.

RUDDER STOCKS - Stainless steel

STEERING - Laminated wood tiller with stainless steel rudder head and straps.

EMERGENCY TILLER - Is to be a spare wood tiller.

CLEATS - MOORING & TOWING - All mooring and towing cleats are securely thru-bolted to deck blocking as follows:

Two - 12" light alloy mooring cleats mounted on foredeck

Two - 12" light alloy towing cleats to be mounted on afterdeck

CHOCKS - Are installed in each rail forward and aft

STEM FITTING - Is a stainless steel weldment with female socket for pulpit stanchion.

DRAFT MARKS - Marks of suitable size are installed on the centerline of the boat at forward and after ends 12" above designed waterline.

#### EQUIPMENT

LIFE RAIL - Double life lines installed. Stanchions of stainless steel tubing, bases securely bolted through deck. Top life lines of stainless steel wire, white plastic covered, set up with turnbuckles at after ends. Lower life lines are similar.

Bow and stern pulpits installed, fabricated of tubing similar to that used for the life rail stanchions. Pulpits fitted with side lights and stern light. Height of pulpits and stanchions, spacing, distance does conform to I.O.R. requirements.

MATTRESSES AND UPHOLSTERY - Mattresses are flexible foam. All mattresses have covers and are fitted with zippers.

FLAG POLE - One pole for ensign, with socket at stern.

GARBAGE CONTAINER - Plastic type, installed in galley.

#### JOINER WORK

GENERAL - All joiner work is done in accordance with the best yacht practice.

Corners of hatches, bureaus, seats, dressers, etc. have rounded corners. All projecting corners of partitions fitted with rounded corners. All fastening pieces, rails, door sills etc. are screw fastened or glued.

Hooks, lanyards and bumpers are installed to control the swing of doors. Suitable catches are installed to hold the toilet door full open. Kick plates on steps, chafing pieces on sills installed.

JOINER HARDWARE - All fittings and hardware are of marine type.

CABIN SOLE - Laid teak veneer. Sole fitted with traps for access to bilge.

WINDOW & PORTS - Windows in sides of cabin trunk are fixed type. Cockpit well has two opening ports over quarter berths.

MIDSHIPS HATCH - is of double action aluminum construction with grooved sill piece for cover.

FORECASTLE HATCH - This hatch is large enough to permit passing sails and sail bags, sliding type hatch. Has grooved sill pieces on forward and port and starboard sides to take hood. Hatch is fitted with locking bolts.

MAIN CABIN COMPANIONWAY HATCH - This hatch is large enough to permit passing main engine, sliding type with wood top, sliding under fiberglass hood. Hatch fitted with lock and two keys supplied.

LAZZARETTE HATCH - is located in aft cockpit seat, hinged fiberglass type with securing clamps.

ENGINE ACCESS - Access to main engine is through removable joiner work in way of engine. Removable joinery is such as to allow for access to engine top and sides.

DROP SLIDE - Drop slide is supplied for the main companionway hatch. Slide fitted with louvres and provisions for locking.

LADDER - Wood frame ladder with rubber treads installed at main companionway hatch with tool box behind.

SHELVES, DRAWERS & LOCKERS - are arranged throughout quarters. Lockers and locker doors have openings for ventilation. Clothes lockers have rods. All drawers have guides and are of type that must be lifted to open.

BERTHS - Fixed berths, transom berths and built-in berths have drawers or traps under. All except forward berths have bunkboards.

TABLE - One drop leaf table, located in main cabin.

CHART TABLE - A chart table is installed with stowage for charts under top of table.

DOORS - Doors and panelling throughout are plywood. Locker doors have louvres for ventilation of locker spaces where possible. Sliding doors installed on dish racks.

HAND RAILS - Hand rails are installed below decks.

MIRROR - Installed in WC

GALLEY - Galley is equipped with alcohol stove, sink and icebox. Counter tops are Formica, or equivalent. Galley is amply provided with racks for glasses and dishes, shelves, bins and cutting board.

STOVE - One Hiller alcohol stove with three burns, or equal, mounted on gimbals in galley space, which is asbestos insulated and sheathed with stainless steel.

ICE BOX - Of built-in type, lined with fiberglass and insulated with foam. Insulation is 4" thick. Shelves provided. Has top opening flush hatch with flush lifting hardware. A drain is provided.

VENTILATION - Natural air intake vents for living quarters are 4-inch diameter cowl vents on Dorade type watertrap boxes. Cowls are clear of operation of all winches.

SOUND INSULATION - The inside of the joiner work in way of the engine is lined with sound insulating lining. Particular care is taken to install insulation to the fullest extent to muffle engine noises.

#### PAINTING

GENERAL - All materials are used in accordance with the manufacturer's latest instructions.

TOPSIDES & TRANSOM - Gelcoat, colour as selected.

COVE STRIPE - Gelcoat, colour as selected.

BOTTOM - Primed with antifouling bottom paint.

CABIN SOLE - Teak veneer cabin sole, oiled.

SPARS - Anodized.

#### PLUMBING

SEA COCKS - Bronze sea cocks, installed on all thru-hull connections below water line. All openings finished flush with outside of hull. Inboard side of sea cocks fitted with hose nipple to take hose having two stainless steel hose clamps at each connection where possible. Sea cocks accessible and combined wherever feasible to minimize the number of thru-hull openings.

SCUPPERS - There are three scuppers through toe rail on each side. The cockpit well has two scuppers, one on each side. All scuppers drain naturally.



FRESH WATER TANKS - Four tanks for a total capacity of 45 gallons are provided. They are fitted with sufficient handhole plates to allow thorough cleaning.

Tanks are filled through a single fill pipe with fill plate on deck marked "WATER." Vents emptying into overflow piping, discharging into the galley sink.

PIPING ( FRESH WATER) - All fresh water piping is copper or nylon tubing.

TOILET - One Baby Blake toilet, with white seat and cover, installed in toilet room. Discharge through a loop, then through an accessible sea cock. Toilet intake is located very close to keel to ensure ample submergency even in heavy weather.

TOILET ROOM FIXTURES - Toilet room is suitably outfitted with medicine cabinets, towel bars, soap dishes and paper holders.

WASH BASIN - One fiberglass wash basin is installed in toilet room. Basin discharges into WC. Telephone type shower installed.

GALLEY SINK - A stainless steel galley sink is installed in galley counter top. The sink is fitted with foot-operated pump with gooseneck spout for salt water. The sink discharges directly overboard through a sea cock.

BILGE PUMPS - Two diaphragm type hand pumps are installed. One pump located in cockpit well, second pump located below decks. Suction lines terminate in accessible flexible section protected by foot strainer. Discharge above waterline.

#### MACHINERY

MAIN ENGINE - Volvo Penta Marine Diesel engine, model MD2B, rated at 25 h.p. at 2500 r.p.m. The engine is equipped with 1,87:1 reduction gear and a 12 volt starter-generator for charging the batteries.

CONTROLS - Double lever Morse controls operated from helmsman's position.

FUEL TANK - One tank with a capacity of approximately 35 gallons. The tank has a fill, located in cockpit sole with deck plate marked "FUEL." Fill has oil-resistant hose with stainless steel hose clamps at the connections.

FUEL SYSTEM - Copper fuel lines with shut-off valve before fuel separator and flexible section connected to engine.

PROPELLER & SHAFT - Propeller is folding type, of bronze, two-bladed. Shaft is stainless steel, approximately 1" diameter with flexible coupling.

SHAFT BEARING, SHAFT TUBE & STUFFING BOX - Stern bearing is a Cutless type rubber bearing inserted in strut. Stuffing box is connected to stainless steel stern tube with hose and hose clamps of stainless steel.

MAIN ENGINE EXHAUST SYSTEM - Consists of a water jacketed section, muffler, exhaust hose and thru-hull fitting. Discharge in counter. Cooling water is connected to water jacket and discharges from water jacket to muffler.

DRIP PAN - An oiltight fiberglass pan with accessible sump is installed completely under engine.

ENGINE COOLING - Takes water through a sea cock located low down and insures ample submergence when heeled, then through a suitable basket strainer hose of proper size to engine.

#### ELECTRICAL

12V WIRING - 12V DC 2 wire, ungrounded system throughout. Controlled by a circuit breaker switchboard with adequate number of circuits.

STARTING BATTERY - 12 volt, mounted in fiberglass-lined tray.

LIGHTING BATTERIES - Two 12 volt batteries, mounted in fiberglass-lined tray.

LIGHTING ARRANGEMENT - See Standard Equipment List

CHARGING SYSTEM - Starting and lighting batteries are on separate charging circuit and on separate current draw system protected by blocking diodes. There is one master switch on the negative side of the system.

LIGHTNING PROTECTION - Heavy wire connected to chain plates, backstay fittings, and headstay fittings, grounded to ballast keel bolts.

## SPARS

GENERAL - Sizes and shapes of all spars are within S & S specifications. Spars are anodized.

MAIN MAST - is made of aluminum alloy, hollow, oval section. Mast is fitted with stainless steel tangs for attachment of rigging.

Mast is wired internally for masthead light, bow light, deck flood light, with wires leading down inside of mast and out the forward face of the mast.

MAIN BOOM (ROLLER REEFING) - is aluminum alloy, hollow section, with worm clew outhaul and sliding fitting for boom vang.

SPINNAKER POLE - is aluminum alloy, hollow section.

JOCKEY POLE - is aluminum alloy, hollow section.

SPINNAKERTRACK - Stainless steel spinnaker boom track on mast with cup slider and cup.

MAST COLLAR - Mast collar is made with beaded lip to take lower edge of mast coat.

## RIGGING AND FITTING LIST

GENERAL - Standing rigging is stainless steel wire with Norseman end fittings. Special adjusting handles are applied to permanent backstay turnbuckle. All turnbuckles are bronze.

WINCH LIST - See Standard Equipment List

SNATCH BLOCKS - As follows

Four large -- Two small

MAIN GOOSENECK - Roller reefing type to suit diameter of boom. Lower end stopper to hold boom at black band position.

<u>RUNNING RIG LIST</u>	<u>Quantity</u>	<u>Dimension</u>
Main halyard - wire with shackle	1	5 mm (3/16")
Genoa halyard - wire & dacron braid with snap shackle	2	6 mm wire (1/4") 12 mm braid (1/2")
Main boom topping lift, wire with shackle & tag line	1	4 mm wire (1/8")
Spinnaker halyard, braid with snap shackle	1	16 mm braid (5/8")
Spinnaker pole lift with snap shackle	1	12 mm braid (1/2")
Bell uphaul, downhaul and shackles & blocks	1	10 mm braid (3/8")
Main boom downhaul, uphaul blocks	1	10 mm braid (3/8")
Spinnaker foreguy & shackle	1	12 mm (1/2")
Spinnaker aft guy & shackle	2	16 mm (5/8")
Spinnaker sheets & shackles	2 2	8 mm (5/16") 12 mm (1/2")
Boom vang tackle, 5-part	1	Large 12 mm (1/2")
Docking lines	4	16 mm nylon (5/8")
Anchor line, 50 m	1	16 mm (5/8")

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STANDARD EQUIPMENT per specification

1. Gel coat - Moulded cove strips and boot top
2. Stainless steel docking plate
3. Spare wooden tiller
4. 2 - 12" light alloy mooring cleats, BOW  
2 - 12" light alloy mooring cleats, STERN
5. Special stem fitting - stainless steel weldment
6. Draft marks - 12" above designed W/L
7. Double life lines to I.O.R.
8. Stainless steel stanchions to I.O.R.
9. Spray hood
10. Fiberglass hood for main hatch
11. Built in coaming for spray hood
12. Mid-ship hatch, lucite, -- operates both ways
13. Foam mattresses with covers and zippers
14. Flag staff
15. Teak veneer cabin sole
16. 4 Opening ports forward - head and companionway - with screens
17. Cockpit well has 2 opening ports over 1/4 berths with screens
18. Lock on main hatch
19. Fixed berths, transom berths, and built-in berths have drawers and traps under. All except forward berths have bunkboards.
20. Cabin table - drop leaf in main cabin
21. Handrails below decks
22. Mirror in W/C
23. Hiller alcohol stove (or equal) with oven
24. Remote shut off and pressure gauge

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25. Engine compartment insulated
26. Bottom primed with anti-fouling copper paint
27. Anodized aluminum spar
28. Anodized aluminum boom
29. Ice box - Top opening with insulation
30. 2 Dorade type vents 4"
31. Bronze sea cocks on all three hull fittings
32. Scuppers through the rail
33. 2 Cockpit scuppers - maximum drainage
34. Covers for all hatches - Dacron or equal
35. Chocks installed in each rail forward and aft
36. Four (4) plastic water tanks with hand holes for cleaning  
45 gallon capacity (approx.)
37. Foot pump in galley
38. Foot pump in W/C
39. Shower in W/C telephone type
40. Two (2) bilge pumps
41. Volvo MD2B engine
42. One Alternator and one generator/starter
43. Folding Propeller
44. Stainless steel propeller shaft
45. Fiberglass fuel tank (approx. 35 gallons)
46. Three (3) Batteries, 105 amp. for lighting, 60 amp. for starting
47. Shaft lock when sailing
48. Drip pan - fiberglass under engine
49. 12 Volt system
50. Circuit breaker switchboard

51. Lights

- Masthead
- Bow
- Deck flood
- Running (red and green)
- Stern
- Engine instruments (On wheel steering only)
- Bunk lights
- Navigator's light (chart table)
- Dome lights

52. Master cut off switch

53. Internal halyards

54. Double spinnaker cranes

55. S & S Masthead

56. Crank outhaul

57. Reaching strut (jockey pole)

58. Deck fittings for spinnaker pole and reaching strut

59. Roller reefing boom

60. Mast boot furnished

61. Standing rigging is stainless steel

62. Bronze turnbuckles

63. Handles fitted to backstay turnbuckle

64. Aluminum spinnaker pole with bell fittings and plunger type outboard end

65. Winches - Barlow

One Main Halyard winch #4

Two Genoa halyard winches #24

One Spinnaker halyard winch #24

One Main Sheet winch #16

Two #28 Genoa sheet winches

Two #28 Spinnaker sheet winches

Three plain 10" winch handles, one lock-in 8" winch handle

Three handleholders

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66. 2 Spinnaker bells
67. 6 Snatch blocks - 4 large, 2 small
68. Spinnaker sheets
69. Genoa sheets
70. Foreguy
71. Boom vang
72. Main halyard
73. 2 Genoa halyards
74. Spinnaker halyard
75. 4 Dock lines
76. Anchor, line and chain
77. 4 Air fenders
78. Boat hook
79. Bosun's chair
80. 2 Fairlead genoa cars
81. 4 Snatch block genoa cars
82. 2 Storm jib pad eyes and blocks
83. staysail pad eye
84. 2 Double foot blocks (Palmer Johnson type)
85. 2 Spinnaker quarter eye fittings
86. Teak trim on deck to be left natural
87. Teak toe rails
88. Grounding system
89. Roller bearing traveller
90. Inboard and outboard genoa tracks
91. Internal boom vang slides on boom
92. Lucite forward hatch



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93. Lead keel - stainless steel keel bolts
94. Teak grating in head
95. Baby Blake head
96. Stainless steel bow pulpit
97. Stainless steel stern pulpit
98. Folding berths in forward cabin
99. Protection bar for stove
100. Shipping cradle and cover
101. Lloyd's Hull Molding Certificate
102. Instruction manuals on engine, electrical system and water system