

# NAJAD

YACHTS *of* SWEDEN

## NAJAD 450 CC

### TECHNICAL SPECIFICATION

DESIGN: NAJAD AB and judel/vrolijk and co

#### DIMENSIONS AND DATA

Length overall	13,50 m
Length waterline	12,20 m
Beam	4,03 m
Draught	2,10 m
*Alternative draught	1,90 or 2,40 m
Displacement	14,00 t
Ballast	4,80 t
Mast height above water line	20,50 m

#### HULL AND DECK MATERIALS

Vacuum infused/hand laid sandwich construction	
Hull material	E-Glass Vinylester
Deck	E-Glass Vinylester/polyester
Core material	Divinycell
Hull color	White
Waterlines color	Carmine red (RAL 3004)
Hull trim line	Carmine red (RAL 3004)

## ENGINE

Volvo Penta	D2-75S
Power	55 kW, 75hp
Sail drive	Folding propeller

## TANKS

All tanks are manufactured in acid resistant stainless steel

Fuel tank	~ 425 l
Water tank	~ 550 l
Hot Water boiler	~ 40 l
Holding tank	2 x ~70 l

## SAIL AREAS

Crusing	97 m <sup>2</sup>
Fully battend main	53 m <sup>2</sup>
Working jib	44 m <sup>2</sup>
*Code 0	88 m <sup>2</sup>
*Gennaker	130 m <sup>2</sup>
*Storm jib	19 m <sup>2</sup>

\* Options

## NAJAD 450CC STANDARD SPECIFICATION - PRICE LIST

ALL PRICES IN SEK , EX. VAT, EX. WORKS HENÅN

Valid from 2016-08-26. Replaces all previous price lists

### Najad 450 CC Standard

4580000

*Including Antifouling, Rigging, Launching and Commissioning*

## RIG AND SAILS

### RIG

- Seldén rig
- Keel stepped mast with fractional 19/20 rig and two pairs of swept spreaders. Control lines led to cockpit under deck to jammers
- Mast and boom in silver anodized aluminum profile
- Standing rigging of stainless steel wire
- Rod kick with gas damper
- shrouds close to the coachroof, bolted and laminated on both sides to the hull
- Internal main and jib halyards of wire/polyester, all halyards and control lines are led back to cockpit
- Headsail Furler system with reefing line on port side, led through blocks on stanchions, through a jammer on aft part of the toe rail and via a block to the cockpit, for easy handling
- Mast equipment includes deck light (on front of the mast), steaming light and anchor lights, windex and flag halyards
- Boom lines include topping lift, internal outhaul and two reefing lines. Reefing lines and topping lift are manoeuvred by a winch mounted on the mast
- LED Navigation lights
- Aluminium rigging screw protection

## OPTIONS

In-Mast Furling, manual with controllines lead back to cockpit	76 000
In-mast Furlin, upgraded to electric and one electric Andersen 40STE winch for outhaul/main sheet. Furling mainsail	192 000
Electric Furlex for headsail, upgrade	30 000
Removable inner forestay with adjuster	34 500
Hydraulic boom vang and aft stay, manouvered from cockpit	62 000
Light under boom in cockpit	7 200
Gennaker halyard	6 400
Carbon mast/boom, rod rigging & rod vang	On request
In-boom Furlin	On request
Spi bom track including halyard and boom lift	12 200
Hydraulic integral backstay adjuster	22 200
Radar reflector on mast, passive	5 000

## SAILS

- 'Najad Original' sails are made in high quality, cloth, triradial cut from UK-Sailmakers
- number, boat number, battens, two reefs, telltales, sail cover and sail bag
- The furling working jib with battens is delivered with tell tales and sail bag

## OPTIONS

Furling main sail upgrade to X-Drive Carbon, double Taffeta	44 200
Furling working jib upgrade to X-Drive Carbon, double Taffeta	32 600
Gennaker including Seldén GX Furler and Halyard	73 300
Code 0 including Selden CX Furler and Halyard	69 900
Storm jib Dacron	13 400

## DECK

### WINCHES

- Andersen full stainless steel, self tailing
- 2 x 52 ST Genoa sheet winches
- 2 x 40 ST Main sheet / Halyard winches
- 1 x 12 ST FS Reefing line winch
- 3 x lockable winch handles

## OPTIONS

1 x El. Genoa winch 52 STE 24V Vario, variable speed	47 100
1 x El. Genoa winch 40 STE 24V Vario, variable speed	40 100

### SAILING GEAR

- Genoa sheet track systems with ball bearing cars, manoeuvred by trim lines, led to 2 x line clutches located just outside the cockpit for easy access
- Main sheet track system, mounted aft of the cockpit, including ball bearing car and adjustable sheeting point, all manoeuvred from cockpit. Sheets and trim lines run through 4 x Spinlock line clutches

## OPTIONS

Gennaker equipment (downhaul, sheets, blocks)	17 800
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## MOORING EQUIPMENT

- 4 x stainless steel mooring cleats, through bolted
- 2 x stainless steel spring cleats, midships, through bolted
- 4 x 15 m mooring lines
- 6 x fenders

### OPTIONS

Bow protection rail, conic	4 500
Stainless steel protection at all cleats and companionway	6 700

## ANCHOR SYSTEM

- The bow fitting is integrated in the bowsprit and includes twin bow rollers and fitting for optional gennaker
- Electric windlass, with removable hand control, located under the deck in a self drained locker
- Delta type anchor 25 kg, galvanized
- 60 m, 10 mm chain, galvanized, and anchor swivel between anchor and chain

### OPTIONS

Cockpit manouvered windlass controll with chain counter	6 300
Electric windlass aft, with Bruce type anchor and 40 m heavy line including remote control	71 000
Stainless steel anchor instead of standard. Add price	17 200
Stainless steel anchor chain instead of standard. Add price	19 400

## SKYLIGHTS, PORTLIGHTS, WINDOWS & VENTILATION

- 6 x opening skylights on deck
- 8 x port light in coach roof and cockpit (opening in aft head, to cockpit and galley)
- 6 x port lights in hull
- Fixed Windscreen , mounted in an stainless steel frame
- 6 x Low profile ventilators on the coach roof
- Louvers in the washboard

### OPTIONS

1 x Additional portlight in galley	6 200
1 x Additional portlight in aft toilet	6 200
6 x Dorade ventilators with stainless steel covls and protection bars	18 900

## TEAK

- Solid teak on deck, coach roof, swimming platform and in cockpit area
- Teak deck of 12 mm thickness glued
- Teak capping fitted with stainless steel rail on the outside for best possible protection

## DECK STORAGE

- Drained chain locker in bow
- Two deck lockers on aft deck
- A large stowage locker is located at the transom including a drained locker for the propane bottle

## MISCELLANEOUS DECK EQUIPMENT

- Stainless steel pullpit and pushpits

- Lifelines with stanchions screwed to fittings, which are through bolted to the rail below the capping
- Two gateways in the lifelines, starboard and port
- A foldable bathing and safety ladder fitted in the integral swimming platform
- Deck fillers for water & fuel and evacuation of the holding tanks
- Internationally approved LED- navigation lights on pulpit and pushpit
- Ensign staff (flag pole)

#### OPTIONS

Shower at swimming platform	5 000
Pushpit teak fitting for outboard engine	2 300
Jackstays on deck, nav.table, galley and cockpit	9 900
Life raft 6 pers., incl. deck or pushpit fitting	29 600
Stainless steel pushpit with integrated teak seats	6 200

### COCKPIT

- table area with grab handles and a washboard in high-gloss varnished teak.
- The steering pedestal is made in glass fibre, with space for additional instruments. On top of the pedestal there is one grab handle.
- The stainless steel steering wheel and parts of the spokes are covered with elk leather
- There is a foldable, high-gloss varnished cockpit table with a cover (on pedestal)
- Cockpit grating and seats in teak
- Flush mounted recess (storage space) in the coaming on both sides of the cockpit
- The engine panel is installed on the pedestal
- The sprayhood provides a completely protected area at the forward end of the cockpit and with the optional extension, the entire cockpit can be covered. The sprayhood has windows in the front section and is fixed to a stainless steel frame. In order to make a splash proof joint the sprayhood is fitted in a groove, on the top edge of the windscreen frame
- There is a spacious cockpit locker on starboard side. It is also provided with a canvas pocket for stowage of the washboard, one fire extinguisher, emergency steering tiller.
- A manual bilge pump is fitted in the cockpit sole, possible to operate from the cockpit with all hatches closed
- The cockpit seats are drained and there are two self bailers in the cockpit floor
- Grab rail aft sprayhood frame (leather covered)
- Grab rails, outside windscreen

#### OPTIONS

Teak glass holder in cockpit, unvarnished	2300
Extra heater outlet in the cockpit	2300
Bimini with stainless steel tubes	29600
Cover for steering pedestal	1900
Sprayhood extension	15200

## INTERIOR

### GENERAL

- The interior is made of a selected, first class quality unstained African mahogany, hand crafted, hand polished and varnished to a satin finish. Dark wood features
- The flooring is made of varnished dark wood with inlaid stripes
- There are inspection hatches in the floor
- The headlining is of white covered panels

#### OPTIONS

Interior in American white oak 129800

### LAYOUT

- See attached layout drawing for standard and layout options

#### OPTIONS

Three cabin layout 68000

### SALOON

- In the saloon there is plenty of space for the whole crew to be together for meals and room for enjoying a good social life on board
- Ample dimmer controlled ceiling lights and reading lights at settees
- The companion way steps have purposefully left unvarnished and in each curved step there is caulked strips for a safer foot-hold.
- There are leather covered stainless steel hand rails on each side of the staircase
- Leather covered stainless steel grab rail on starboard side of the ceiling
- There is a two opening skylight in the saloon ceiling which together with the port lights makes the saloon bright and spacious
- The large saloon table, foldable on starboard side, has a bottle stowage in the table support
- The backrests of the settees are removable to convert the settees to berths (port 2,0 m, starboard 1,80 m)
- Book shelf between saloon cupboards to port including stainless steel rail.
- Head room 1,97 m

#### OPTIONS

Layout option - Saloon with chairs to starboard 51 700

Extra grab rail, saloon ceiling at port 6 000

Double Sky screens for skylights 9 600

### GALLEY

- The galley is located underneath in the passage to the air cabin and there is a large working surface with all necessary galley equipment easy to reach
- The galley work top is made of Kerrock® with stainless steel twin sinks and a chopping board, which fits over one of the sinks
- A fully pressurized system for hot and cold fresh water includes a luxury single lever tap
- The cooker is a twin burner gimbaled gas cooker with oven. The gas pipes are fixed copper pipes and a remote controlled shut-off valve between cooker and gas bottle is located in the galley area. A manual gas valve is fitted underneath the cooker
- Microwave oven in galley (above the stove).
- A well insulated (92 L) fridge box with 3 removable baskets. It has a water cooled compressor
- There are large additional stowage areas for groceries and other food items
- The cupboards are equipped with fiddles for plates, cups and glasses and there is a cupboard under the cooker for pans and cutlery

- Waste basket in the cupboard under the sinks
- Ceiling light over the working area
- Head room 1,80-1,93 m
- Najad crockery set for 4 place settings including plate, side plate, bowl and mug. Cutlery and glasses including wine glasses, tumblers and beer glasses
- Cutlery and glasses including wine glasses, tumblers and beer glasses

#### OPTIONS

Service tray on the cooker	2 300
Fresh water filter	2 100
Freezer/Fridge 40 l instead of dry stowage (water-cooled)	32 000
Gas alarm by the cooker, automatic cut-off	5 000

#### NAVIGATION AREA

- The spacious navigation area, angled slightly off the saloon, is situated on starboard side, conveniently beside the companionway offering a good contact to the cockpit
- There is space for admiral charts which can be stowed in the chart table
- Space for additional instrumentations and equipment on panels above the navigation table
- The switchboard behind a Perspex door, is easy accessible and equipped with domestic main switch, electric and tank volume information, circuit breakers, fuses and prepared for additional circuits
- There is also a 12 volt DC, 230 volt AC outlet and a chart lamp

#### AFT CABIN

- A comfortable and wide, full queen size double berth which can be entered from both sides, with two reading lights
- En suite heads with shower on starboard side and a settee on port side
- Berth boards are unvarnished and ventilated with holes to minimise dampness
- Plenty of stowage underneath the berth bottoms
- To port and starboard there are spacious wardrobes, shelf along hull sides
- There is a skylight (emergency exit) and three port lights in the coach roof
- Head room 1,92 m

#### OPTIONS

Shelf between cupboards, stb side, aft cabin incl. s/s rail. Price each	2 300
Sky screen with darkening- and mosquito net	5 100

#### FORWARD CABIN

- A comfortable and wide, full queen size double berth which can be entered from both sides, with two reading lights
- En suite heads with a separate shower and a wet locker, suitable for a washing machine
- The unvarnished berth boards are mounted with hinges and ventilated with holes to avoid dampness
- Shelves along both sides of the hull
- Spacious wardrobes on sides with large cupboards underneath
- The big skylight, is also an emergency exit
- Head room 1,96 m

#### OPTIONS

Sky screen with darkening- and mosquito net. Large model	5 100
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**HEADS / SHOWER**

- There is one heads en suite to forward cabin and one en suite to the aft cabin. The forward cabin has a separate shower area, including a wet locker, suitable for a washing machine
- Bulkheads are white laminated. Wash basin, bench surface and shower floor are made in Kerrock®
- The toilet is manual operated, drained direct to sea, into the holding tank or to shore through the deck fitting.
- There are lockers above and below the wash basin and a dedicated wet locker
- The hot and cold pressurized fresh water system is operated by a single lever tap at the wash basin and a thermostat controlled shower mixer. The shower area has an electrical waste pump and a curtain
- Head room 1,93 m

**OPTIONS**

Clothes rack in the shower, detachable	800
Electric toilet	9 400
Odour filter for WC flush water	2 600
Mirror on door (full height)	3 000

**SOFT FURNISHINGS**

- Saloon settee cushions: 130mm thick of three layers foam, providing a comfortable seat, covered with specially selected fabrics
- Berths: 120 mm thick of two layers foam providing a very comfortable mattresses. Covered with neutral mattress fabric in the aft and forward cabin
- Curtains: Specially selected fabrics. Flameproof BS 5852

**OPTIONS**

High class pocket spring mattresses 150 mm thickness, covered with neutral mattress fabric. Upgrade each cabin	12 600
Carpets in all cabins (non-fitted)	21 000
Upgraded upholstery fabric on all seating areas	15 200
Add. price cushions ALCANTARA® fabric instead of standard	23 200
Sleeping mattress (topper). Price per single berth	2 900
Sleeping mattress (topper). Price per double berth	4 800
Leecloth per single berth	2 600

**HULL, DECK AND RUDDER****HULL**

- Vacuum infused hull in sandwich construction, multi-axial E-glass fabrics, vinylester resin and divinycell core material. The surface layer is gelcoat
- Below the water line the hull is treated with two layers of epoxy primer and grey antifouling. The inside of the hull is top coated
- Hull color is white, with carmine red water lines and trim lines
- The hull is reinforced with longitudinal and transverse floor grid system construction, which also supports the keel fittings, mast, engine frame, tanks and cabin soles
- There are also additional longitudinal reinforcements in the hull, stringers, for maximum hull strength.
- All structural bulkheads and stringers are laminated on both sides to the hull



- Reinforced single laminate (no core) is used in high stress/important areas such floor construction, engine bed and through hull fittings

## DECK

- Vacuum infused/hand laid deck and coach roof in sandwich construction including multi-axial fabrics, vinylester outer skin, divinycell core material and polyester inner skin
- Reinforced single laminate (no core) is used in high stress/important areas
- Deck colour is white
- Hull and deck are sealed and bolted together

## KEEL

- The keel, designed for best performance, has an upper part in cast iron for strength and a ballast lead bulb
- The entire keel is separately epoxy treated, and acid proof stainless steel bolts fix it securely to the hull

### OPTIONS

Alternative draught 1.90 m or 2.40 m

58 000

## RUDDER AND STEERING

- The balanced spade-rudder, with self aligning bearings, is made in glass fibre reinforced vinylester, with a divinycell core in a stainless steel frame work with an acid resistant solid stainless steel rudder post
- The steering system is rotating torque rod system
- The stainless steel wheel (covered on elk skin) is provided with an adjustable friction brake
- The emergency tiller (stored in the cockpit locker) fits on the rudder post and is attached through a dedicated deck fitting

## TECHNICAL SYSTEMS

### ENGINE / PROPULSION

- Volvo Penta D2-75S, 4-cylinder direct injection 4-stroke marine diesel with fresh water cooling.
- Crank shaft power: 55 kW (75 hp)
- S-drive and fixed propeller
- Mechanical reverse gear with single lever control
- On the pedestal there is a tachometer with digital engine hour meter, visible and audible alarm for low oil pressure, high engine temperature and charging
- The engine is suspended on rubber cushions which together with the low cruising rpm and a well sound-insulated engine compartment, ensures a very quiet running engine and low vibration levels
- Wet exhaust with swan neck and effective rubber silencer
- The engine is located inside a well insulated engine room with daily access from a door on port side. All important engine components are easily accessible for servicing
- On the engine cooling system there is an outlet to heat the hot water boiler
- Separate external fuel and microbe filter in addition to the engine standard filter
- Separate engine battery switch, battery voltage is displayed at navigation table.

### OPTIONS

Retractable bow- and stern thruster with progressive power and docking function. 2 x 24V/200A additional battery	235 000
Volvo Penta control interface for engine data on Raymarine	4 400
Double fuel filter	7 200
Extra insulation in the engine room	19 600
Additional aluminum lining inside engine room compartment	37 000
Bowthruster Sleipner, incl add. Battery, mounted in tunnel	71 300
Folding propeller, 4-bladed Volvo Penta	23 400
Volvo Penta D-3 110 hp, with shaft drive	109 200

## TANKS, PUMPS & LIQUID SYSTEMS

- All tanks are made of acid resistant stainless steel and are fitted with inspection hatches and level gauges
- The digital water and fuel tank meters are conveniently positioned on the switchboard at the navigation station. The tank monitors are programmed to the shape of each tank and display a graphical and digital reading in either litres/gallons or percentages
- Both holding tanks have a level indicator. They can be evacuated separately ashore via a deck fitting or drained to sea by gravity. All hoses connected to the holding tanks are gas tight and mounted with twin hose clamps
- The fuel tank has a cleaning pipe, reaching the bottom of the tank, to evacuate dirt and water.
- A separate manual evacuation pump is provided. The reinforced hoses have twin clips in stainless steel
- Water boiler 40L
- Electric emergency bilge pump.
- Electrical automatic/manual bilge pump
- Manual bilge pump

## ELECTRICAL SYSTEM

- The domestic system voltage is 24V, with a total capacity of 200 Ah at 24 volt. The batteries are installed in boxes.
- One separate AGM engine start battery 12V/100Ah
- The electric power is supplied by two engine alternators 12V/60A, 24V/110A. And via shore with a Mastervolt Battery Charger 24V/60A Combi charger/inverter
- The 230V shore power system includes 20 m cable, fuse box, earth fault interruptor and 5 sockets
- DC monitoring system, displaying current consumption, voltage and remaining battery capacity.
- The electrical system is mainly connected to a Empir bus system which controls the majority of the functions
- 2,2 kg zinc anode
- Grounding plate

### OPTIONS

Diesel generator Whisper 3,5 kW	126 900
Combi charger/inverter, 24V/100A/3500W, with DC monitoring system, displaying current consumption, voltage and remaining battery capacity. Upgrade	26 000
Extra domestic battery 24V, 200 Ah	10 600
Night lights	6 800
Additional 220 V outlets / each	1 800

## NAVIGATION / COMMUNICATION SYSTEMS

- 2 x Raymarine i70 Multifunctioninstruments, wind, speed and depth

**OPTIONS**

Additional Raymarine i70	7 300
Raymarine Autopilot p70	59 800
Smartcontroller wireless (incl more functions)	6 200
e125 12" HybridTouch with EU chart mounted in cockpit	32 800
e95 9" HybridTouch with EU chart mounted in cockpit	24 600
4KW 24" Digital Colour HD radarantenna mounted on mast	35 000
4KW 24" Digital Colour HD radarantenna mounted on pole aft	61 800
Stainless steel protection bar for radar antenna on mast	8 900
AIS 500 (tranciever)	13 400
VHF RAY 260e DSC (placed at navstation)	11 600
VHF Ray 260e Second Station Kit (pedestal or sb glove compartment)	5 100
Extra VHF speaker for 260e	2 300
Mast head combi antenna for VHF, FM/AM	5 100
Mast head combi antenna for VHF,FM,TV,AIS (Antigua AIS)	15 200
Furuno Navtex NX-300 incl. antenna	10 000

**ENTERTAINMENT**

- Radio/CD-player, speakers in saloon

**OPTIONS**

Radio/CD/DVD Fusion 750 MS-AV750 with Bluetooth add price.	11 100
32" inch Smart TV in saloon, fixed mounting, ex. aerial	12 900
2 x loudspeakers in the cockpit	3 800

**MISCELLANEOUS TECHNICAL SYSTEMS & EQUIPMENT**

- Eberspächer heater 5 kW with outlets in saloon, aft- and forward cabin and heads
- 3 x Fire extinguisher (powder ABE)
- 2 x 2,75 kg gas bottles
- Full tank of diesel at handover

**OPTIONS**

Watermaker approx 60 l/h	142 400
Air-conditioning fwd cabin	62 600
Air-conditioning saloon	72 900
Air-conditioning aft cabin	62 600
Washing machine in fwd heads	23 600
Gas alarm by the cooker, automatic cut-off	5 000
Safe, digital combination	8 500

**MISCELLANEOUS**

- Commission of Yacht in Henån
- Three days hand over including test sail

**NOTES / SPECIAL REQUESTS (TO BE CONFIRMED BY THE YARD)**

## TYPE APPROVAL / OTHERS

- CE certified category A (unlimited ocean voyages)
- Extra equipment may influence the standard specification. It may also influence the displacement and balance of the yacht which might make it necessary for Najadvarvet to take necessary steps to rebalance the yacht

## PRICE

Total price (SEK ex. VAT)		4 580 000
Total Price local currency	1,00	4 580 000
VAT		
<b>Total price local currency</b>		<b>4 580 000</b>

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<b>Total price local currency</b>		<b>4 580 000</b>
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## RESERVATIONS

PLEASE NOTE! Whilst every effort is made to adhere to this specification exactly, there is always the possibility of details being changed for reasons such as model improvement and component supplies, to those in other publications. This can also be due to model year changes, printing errors, price adjustments or other reasons. In respect of the legal purchase terms, this is only a guideline to describe the product in as detailed way as possible in a printed media. Najadvarvet AB especially reserves the right to change the design and reduce or change the standard equipment, the choice of products and the technical solution of the product without notice.