

YACHTVISION

Hét lijfblad voor iedere watersportliefhebber!



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Shipyard: Hettinga - Wajer Jachtbouw bv Heeg (fr)

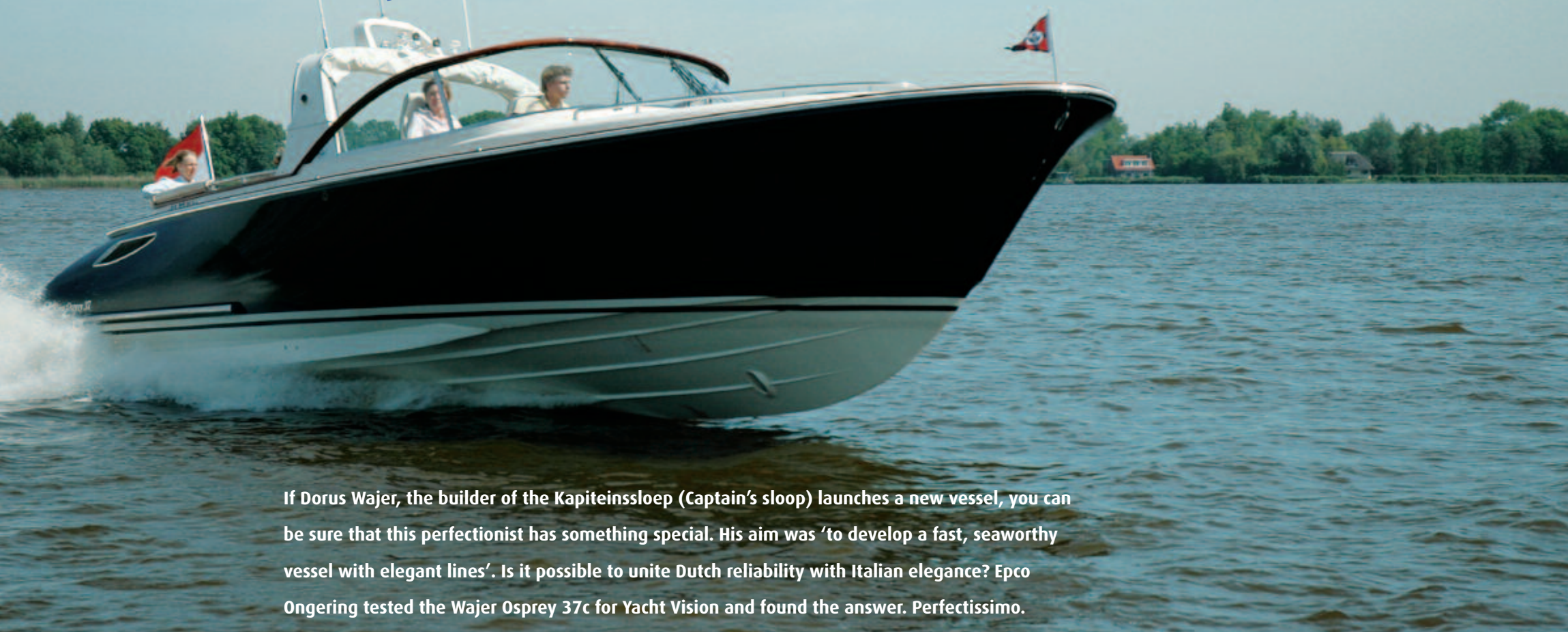


TEST
WAJER OSPREY 37C

Importeur(s) / producent:

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PERFECTISSIMO0000 WAJER OSPREY 37C



If Dorus Wajer, the builder of the Kapiteinssloop (Captain's sloop) launches a new vessel, you can be sure that this perfectionist has something special. His aim was 'to develop a fast, seaworthy vessel with elegant lines'. Is it possible to unite Dutch reliability with Italian elegance? Epco Ongerling tested the Wajer Osprey 37c for Yacht Vision and found the answer. Perfectissimo.

Three-dimensional

Wajer started in 2002 with the development of a yacht with which the international market could be reached. Though it is true the Kapiteinssloop is a superb product, there is little demand abroad for this type of typical Dutch boat. For technical support on the new project, contact was made with ir. Dick Boon of Vripack Naval Architects. This renowned design office is capable of designing a fully three-dimensional vessel such that before one piece has been made, there is already a very lifelike image of the final result. However, Wajer had determined that it must be a distinctive vessel, a boat like no other or, as he himself says ironically: "A boat that looks like nothing else". Consequently, work was done in secret with Volvo Penta, Wajer's preferred supplier, on the application of the latest technical development: the Volvo Penta IPS.

Revolutionary

The Inboard Performance System (IPS) is a truly revolutionary propulsion system. Behind the two Volvo D6-310 common rail 5.5 litre six-cylinder turbo-diesel engines, with after cooler and a capacity of 228 kW (310 Hp), the hydraulic reversing gear coupling is combined with an electronic operating system for the underwater sections. These rotating units are

connected through the bottom of the hull by a system comprising two rubber sealing and suspension rings with two (patented) counter-rotating propellers per propulsion unit, which are, moreover, mounted in the direction of the heading. The forward propeller has three blades and the counter-rotating propeller behind it has four. Volvo Penta IPS is therefore working with steerable propulsion units instead of with a propeller shaft system. This means that all of the available power is concentrated in the desired direction. The counter-rotating propellers eliminate lateral forces and ensure dead straight sailing characteristics. The system operates electronically for gear changing, acceleration and steering operations. And for the builders, it is not unimportant that the installation time has been reduced by 50%, compared with a conventional propeller shaft system. The reduction of vibration arises because the propulsion unit absorbs all propulsive and driving forces. The remaining vibrations are absorbed by the combined rubber suspension and sealing rings. Thanks to this construction, the driving forces of the propeller are not transferred to the engine mountings but rather directly to the vessel. Moreover, the engines are also flexibly configured. The American magazine 'Motor Boating' has nominated the Volvo Penta IPS system as the best product of the year. This design will have tremendous consequences for yachting

design and water sports, according to the jury. And that is an opinion with which the Yacht Vision test team can wholeheartedly concur.

Spectacular

'Tractor propellers' have been known for some time and a somewhat similar Schottel system has been applied in commercial shipping. The advantage is that tractor propellers can release their power into completely undisturbed inflowing water and directly in the desired direction. It is also an important fact that drive bearings, a propeller shaft and lining out the engine have become superfluous. Moreover, Volvo Penta utilises Electronic Vessel Control (EVC) for the co-ordination and control of the engines. That is a system that has already proved its effectiveness in thousands of vessels. According to Volvo Penta, due to the linear power transfer of the tractor propellers, the acceleration and top speed will increase spectacularly. The Swedish firm claims 15% faster acceleration, 20% higher top speed, 35% higher efficiency, 50% less noise and a 50% smaller turning circle with this system, compared to traditional propeller shaft systems. Even if you only use one engine, there is still 70% of the manoeuvring capacity remaining. These are indeed spectacular figures.

Sceptics

However, with such a revolutionary system as IPS the sceptics are lining up with critical questions. How vulnerable is it? What happens if you sail over a tree trunk? Can the unprotected propellers and the whole propulsion unit, hanging loosely moored under the boat, be destroyed? That would be an expensive business. Inquiries at Volvo Penta inform us that with the development of IPS special care has been devoted to the supposed vulnerability of the units. It appears that a conventional propeller shaft system is much more prone to pick up a line than the new tractor propellers. In the event that this should happen, the counter-rotating propellers tend to chew up the lines and plastic rather than becoming damaged. The units can of course be deformed by sailing over a timber beam or running aground. Just as with traditional propeller shaft systems, where bent propellers and shafts can occur as a result of violence, IPS systems can likewise sustain damage. In the worst case, the unit will become detached from under the boat. Thanks to a snap-off shaft and the double rubber seals the boat will not leak, however. You will still be able to continue the voyage with the other propulsion unit. Replacement of the underwater components costs less than € 8.000,00 and is finished within two days. Because the IPS system has been developed ►



**THE DESIGN WAS
INSPIRED BY
CLASSICAL
FORMS BUT IT IS
A BOAT THAT
'LOOKS LIKE
NOTHING ELSE'**

THIS VESSEL IS AS EASY TO STEER AS A CAR

► especially for high-speed vessels on open water, the chance of impacting a drifting hard object are much less than on internal waterways. Only if you really need to have a boat that will stand clear of the water is the system unsuitable.

Brilliant lines

The Osprey is therefore a unique sight in our country just because of the propulsion system. But that is definitely not the only unique feature. The design was inspired by classical forms, like the ones sometimes seen in Rivas and ChrisCrafts. The boat has a characteristically narrow bow, widening into a 'Wajer stem'. Because the superstructure has been kept low, the curved wind screen immediately attracts the eye. The central section is hinged. This wind screen protects the middle third of the boat. If you view the vessel from the side, you can see just how brilliant the line of the wind screen is. The window line flows seamlessly into the curvature of the tumble home stern of the vessel. The air intake vents run along this line, so forming a harmonious whole. Behind the pilot's seats, a modest navigation bracket forms the anchoring point for the hood. The hood, which can be set up in five minutes, protects the large open tub against adverse weather conditions. With the navigation bracket, the clearance amounts to 3.5 metres but if it is folded down, you can go under bridges of 2.20 m available height. There are steps to the swimming platform on the inside of the stern, which give rise to two beautifully formed tumble home 'buttocks'. The disadvantage of this handsome design choice lies in the relatively narrow tub. However, the advantage is that the IPS units fit precisely under the tumble homes. The 'dead rise', the angle that the bottom makes with the waterline, is 18 degrees and the engines are 2 degrees out of line. The double 'exhausts' in the stern are also remarkable. In the IPS system, the exhaust goes via the propulsion units. However, Wajer has opted for beautiful ornamental tail pipes, which are actually just the drainage outlets for the tub.

Exclusive

The hull of the Osprey is manufactured by Zaadnoordijk in Heerenveen. It is anticipated that this company will supply about 20 Kapiteinsloeps and three to six Ospreys next year to Hettinga/Wajer Jachtbouw in Heeg, where the hulls will be finished. Due to this limited number, the exclusivity of the vessels is assured. For the construction, a sandwich with Airex foam in the bottom was selected, which means that the laminate has a thickness of 25 mm. Corecell has been

used in the bow, which leads to a 20 mm thick laminate. In the hull, a webbed frame is created because stringers have been fitted every 40 cm and ribs every 100 cm. In the bilge are two electric bilge pumps, which are actuated by double floats. Hull and deck are bonded together by means of adhesive and bolts. The capping is finished with a solid mahogany cap, which, just as the mahogany trim on the windows, is finished in high-gloss varnish. The tub is covered with teak and under the stern section the engines are hidden away under a slowly opening electrically-operated hatch. In the engine room the equipment has been installed in an exemplary fashion. The floor has anti-slip plating. All the piping runs through sleeves, which in turn are properly secured. Inside the large hatch there is sufficient space for maintenance, and so that all the safety provisions, such as a FirePro fire extinguisher can be checked, is hardly surprising with a Wajer vessel.

Sprung seats

The tub of the Osprey is divided into three sections. At the rear there is a 30 cm raised floor with a U-shaped bench seat, where five people can sit comfortably and is also intended as the base for a sun bed. Comfortable is an understatement for all the seating on board. When you sit down, you notice that all the ergonomic parameters of the seats have been investigated in the design phase. Immediately in front of this seating area there are two steps (steps of 26, 29 and 44 cm) on each side with stowage space beneath them. The lockers in front of them are for stowing the canopy and a partition can be formed by the two longitudinal benches with a folding table between them. All the seating is covered with Arpatec, an ideal type of synthetic leather. This is also true for the steering section, which comprises three extremely comfortable sprung seats that Wajer discovered somewhere on the inland navigation market and adapted for the Osprey. They have a WW logo on the back and teak footrests.

The technology

A remarkable solution has also been chosen for the electronics. A programme supplied by Free Technics, 'FT NavVision', which provides all the functionalities and all possible information on a compact computer.

The screen in front of the driver gives all desired information and the selection of information can be controlled with the aid of a tracking ball. For the benefit of operational safety, all control of the equipment is provided by a PLC. By connecting



all the systems with each other via the computer, the reliability of the control and ease of operation are optimised. A lot of weight was also saved by having to install 45% less cable. This modern technology, 'Fly-by-wire', just like in aeroplanes, is something that was previously available only on super yachts and it is a magnificent achievement that Hettinga/Wajer Jachtbouw, in collaboration with Free Technics, have been able to accommodate this in an 'ordinary' pleasure yacht. For functions and equipment that must be available at all times, such as wind screen wipers and the signalling horn, the Osprey has recessed buttons in the SS dashboard. The controls are completed by the joystick for the bow and stern propellers.

The sitting position is ideal and not just because of the wonderful seats. Another example of Wajer's ergonomic insight combined with an Italian feeling for style can be found in the magnificent, adjustable, six-spoked steering wheel. Functionality can certainly go very well with beauty.

Bleached

Forward of the wind screen is the cabin section, which is relatively under endowed as far as space in the vessel is concerned. It is a fair-weather vessel and you would only sit in the cabin if you wanted to get away from the other passengers. Or if you want to watch TV, because the television screen is mounted on a pivot above the sink. The headroom there is maximally 172 cm, although it is possible to stand erect at the Corian sink on the port side. The L-shaped seating to starboard can be transformed into a bed by incorporating the table. If you also count the two longitudinal bench seats in the middle of the tub (80 cm wide, 200 cm long) and the U-shaped seating aft (sun bed 220 x 150 cm) as potential sleeping accommodation, then six people can sleep on board. However, spending the night was not a core component of the design. It is great that you can make up

beds on board but probably, not much use will be made of them. The galley has the equipment to make extensive cooking possible, but this facility will probably only be used for making coffee or to make a bowl of soup. In the bow there is the wet cell, with a vacuum toilet, a sink and a hand-held shower. Because of the limited height (165 cm), the shower at the stern will be used much more often. The design of the smallest (and only) room on board is again brilliant. A magnificent, high-gloss varnished bleached mahogany plate is fitted to the bow and there are mirrors on the side walls. In all kinds of surprising details, such as the place for the toilet paper and the recessed magnetic door rebate, you can see the refinements that Wajer has incorporated into the design. According to him, the last 10 per cent of the development costs half of the total energy expended. This concerns only the details and finishing. However, the execution of the design is also to say the least, very shipshape.

AT FIRST, IT TAKES A LITTLE GETTING USED TO THE OVERKILL OF INFORMATION ON THE SCREEN



THE CLAIMS OF VOLVO PENTA ABOUT ACCELERATION, TOP SPEED AND NOISE ARE ABSOLUTELY CORRECT

Zero spray

This vessel is intended to sail spectacularly and the fame of the IPS system makes you very curious as to the sailing characteristics. However it is not so easy to get your hands on the helm. First, Dorus Wajer demonstrates how beautifully the boat planes through the water. How easily the bends can be taken and how little spray the boat throws up. Indeed, the name could also be '0 spray', because the two integrated spray rails and the well-formed hull below the water ensure 'dry' sailing with this yacht. In the early summer morning, it is completely calm on the Loosdrechtse Plassen and it is remarkable that the Osprey hardly disturbs the peace and quiet. When taking over the helm, it takes a little getting used to the overkill of information on the screen. However, it is very well ordered and logically designed and so the engines can be carefully engaged. There is no thud, instead the Osprey begins to move very smoothly and almost inaudibly. Despite the minimal noise, the boat almost immediately reaches a basic speed of 4.2 knots, which is an appropriate speed when approaching a harbour. If one engine is disengaged, the basic speed is then 3.2 knots, not quite 6 kph. The engines produce only 58 dB(A) and that is due both to the good insulation (whereby only a quarter of the actual sound of the engines penetrates into the tub) and the benefits of the IPS system.

Whispering racer

Those benefits become clearer when the throttles are fully opened. After a short implementation cycle, the boat accelerates to 25 knots in 10 seconds and within 20 seconds reaches the top speed of 37.7 knots. The boat can plane at 1500 revolutions at a speed of 9 knots. At top speed (70 kilometres per hour), you have the feeling that you are only going half as fast, because the noise level remains well below 80 decibels: 77 dB(A). That is a unique score for a high-speed open boat, with most of which you would be

happy if they remained under 90 decibels. Just to make this clear: every three decibels means a doubling of the noise, consequently, 90 decibels is more than sixteen times as high as the noise level created by this whispering racer. So far, the claims of Volvo Penta about acceleration, top speed and noise are absolutely correct. But what about the manoeuvrability? To find this out, a whole series of fast, short bends are taken. This gives a spectacular result. This vessel is as easy to steer as a car. Under all circumstances the Osprey does exactly what you want and leans beautifully into the bends. The IPS electronics appear to constantly find the most comfortable position for the boat. This gives you the feeling of constantly standing erect, even if you are taking a sharp bend and at a severe inclination at the time.

Converted

For form's sake, the remaining sailing tests were carried out. Actually, we are already converted to belief in IPS. The turning circle can of course be performed by dancing around her own axis with the two engines. Even reversing scored the maximum number of points. It is actually child's play on this vessel. The bow and stern propellers can stand idly by as reversing is carried out effortlessly, on a perfect heading. After noting the fuel consumption data there is still a little time in which to enjoy the experience. You don't often get the chance to sail on such a perfect vessel as this, so it's best to enjoy it whilst you can.

Conclusion

With the Osprey 37 convertible, Wajer has met and even exceeded all expectations. Besides the solid construction and perfect finish, this vessel stands out especially for her detailed stylishness. Because of her particularly elegant appearance but even more so because of her revolutionary sailing characteristics, this vessel is an extraordinary sight in Dutch waters. Only superlatives are appropriate for this unique piece of Dutch craftsmanship and we can only be proud of that. ■

+ POINTS

- Beautifully detailed design
- Solid construction
- Brilliant technology
- Unequalled sailing characteristics

- POINTS

- Limited overnight possibilities
- Expensive (but not dear)



TECHNICAL DATA

Distribution data:

Importer(s) / producer	Wajer Watersport bv
Street	Nieuw Loosdrechtse dijk 291
Postcode and Town	1231 KW Loosdrecht
telephone	035 5821254
fax	035 5823677
e-mail	info@wajer.nl
website	www.wajer.nl

General vessel data:

Make and Type	Wajer Osprey 37 Convertible
Shipyard:	Hettinga-Wajer Jachtbouw
Designer	Vripack naval architectes
CE- class	C
Max. number of persons according to CE	8
Max. load according to CE (in kg)	800

Dimensions:

Length over all (in m)	11.1
Length of hull (in m)	11.1
Length at waterline (in m)	9.9
Beam width (in m)	3.7
Draught (in m)	0.9
Clearance (in m)	2.2
Water displacement (in kg)	8000

Engine data:

Standard engine type	2x Volvo Penta D6 IPS
Engine capacity in kW (hp)	231 kW (315 hp)
Engine type of test vessel	2x Volvo Penta D6 IPS
Engine capacity in kW (hp)	2x 231 kW (315 hp)
Number of cylinders per engine	6
Reversing gear coupling type	hydraulic
Driving gear ratio	1.94 : 1
Standard propeller # blades	T5

Tank volume data:

Capacity of fuel tank (in litres)	900
Capacity of water tank (in litres)	200
Capacity of waste water tank (in litres)	200

Electrical system:

Voltage	24
Starting battery (number and Ah)	4x 100 Amp/h
Service network (number and Ah)	2x 140 Amp/h
Battery charger capacity	50 Amp
Transformer make and type	Victron Multiplus 24/1600/50

Calculated values (in vergelijking met)

	Wajer Osprey 37c	Sunseeker Sportfisher 37	ChrisCraft Roamer 36
Ratio length / width	3,00	4,00	2,91
Theoretical hull speed (in kn.)	7,65	8,44	7,29
Ratio water displacement / engine capacity	1,70	0,94	1,49

Engine performance

	revolutions	knots	kph
Minimum speed of the engine	600	3,2	5,9264
Maximum speed of the engine	3650	37,9	70,1908
Cruising speed	2400	22,8	42,2256
Range at cruising speed	760 km		

Turning circle SB:	11,1 metres
Turning circle BB:	11,1 metres

Noise level Steering position dB(A):

Speed 3,2 knots (600 revs)	58 dB
Speed 15 knots (1800 revs)	69 dB
Speed 37,9 knots (3600 revs)	77 dB

Construction:

Hull: material	sandwiched polyester
process	hand-lay and spray
Deck material	sandwiched polyester
Bracing in load-bearing locations	webframe
Fixing of hull - deck	glued and bolted
Material of fittings	SS 316 / A4
Number of mooring points	11
Anchor equipment standard	ja

Layout (°):

Number of cabins	1
Fixed sleeping accommodation	4 to 6 persons
Number of wet cells	1
Maximum headroom	172

Equipment and price:

Standard price from	€ 532.000,00
Including	VAT
Price of tested vessel	€ 550.000,00
General warranty (years)	2
Osmosis warranty (°)	HISWA terms

* = Only if applicable

** = ECB definition ready to sail = inclusive :

- Transport costs
- Delivery costs
- Half a tank of fuel
- Mooring fenders, flagpole and flag
- Set of cushions
- Compass(°)
- Log/depth meter (°)
- Tarpaulin / valve cover (***)
- Gipsy wheel and pudding fender (****)
- (***) Only if stated on the options list

remarks: delivery ex Heeg shipyard

