

## Sunsail 404

LEOPARD 40'



## A great 12 meter boat for family cruising

It's a sign of the times - the 40 foot sector is starting to see some enthusiastic reinvestment by the majority of the builders. They are now taking turns at presenting their new models. The Leopard 40 was first shown at Miami in February 2015, and was then presented to European fans at the International Multihull Show at La Grande Motte, France, in April. We made the most of a nice windy day for a test sail off the coast at Nice.

### **A 40 FOOTER WITH A LONG HISTORY**

From 1988 through 1996, the Robertson and Caine yard built some pretty big boats (60 to 72') aimed at offshore racing and fast cruising. They were mostly monohulls, but there were also a few 40' catamarans. This core activity was then abandoned in favor of a complete catamaran range (38', 42', 45' and 47') designed by Simonis-Voogd and built largely for the Moorings charter company. In 2002 the new 40 was designed by Gino Morelli and presented in Europe under the name of the Moorings 4000. It remained in production until 2005. Next came the Leopard 38 (up to 2009) and the 39 (up to 2014), with the only difference being the design of the bimini.

### **THE 2015 VERSION OF THE LEOPARD 40**

The launch of this new 12 meter catamaran completes the overhaul of the range, which today covers the 40', 44', 48' and 52' sizes for the sailboats, and the 43PC and 51PC for the powercats. They are all Simonis-Voogd designs. When we tested the 51PC (Multihulls World no.140), we saw a version

whose interior had been completely restyled, breaking with the tradition of "classic cherry cabinetry" in which the South African yard had become a past master. Today the entire range has adopted this new design and at the same time is moving towards enhancing forward access by opening the front of the salon.

### **A LENGTHY INITIAL REFLECTION**

The specifications for a 12 meter catamaran in a big production run present many challenges. The visitor must be struck by an impression of space, yet the cabins need to exude a sense of coziness and intimacy! Moving around on deck (when under way as much as when at anchor) and around the nacelle must be fluid and safe, whilst allowing everyone to split their time between being in company or taking some quiet time if required. The latest European trend is to explore the options available using the coachroof, avoiding the famous sliding door (Nautitech, Bali or the TS42), but Leopard has chosen to make an opening forward! But there also needs to be an exterior eating area, the helm station, sail handling console, not for





← With fine-entry bows and a sleek sailplan, the Leopard 40 performs well out on the water

↓ The forward third of the hull is fairly narrow, increasing as it comes aft to the very load-bearing shape of the aft third, allowing nice performance under sail.

getting access to the water and the option to stow a dinghy which can be easily used. Finally, the headroom must be generous, as must the passageways in the hulls. Bringing all these factors together is a real brain-teaser for the designers, because it means fitting all this into hydrodynamic volumes while conserving fine hulls, balance and bridgedeck clearance! The Leopard 40 is aimed at private owners, but must also satisfy the exacting demands of Moorings' specifications. This implies that they must be functional and easy to use, with all the comforts expected by the American public (generator, large water and fuel tanks, sizeable fridge and freezer and general reliability to support intensive use).

### **PROFILE, ARCHITECTURE AND BUILD**

The 40 picks up on the style code of the new generation Leopards: fine entry bows, vertical topsides with large rectangular portlights and a plunging coachroof which softens the vertical appearance of the front. An overhang shelters the small forward cockpit. The overall appearance is fairly chunky, but the sleek sailplan provides good performance on the water. The huge volume inside the coachroof is well supported by the hydrodynamic characteristics of the whole platform. The forward third of the hulls is fairly stretched, with increasing volume aft in the semi-circular sections supporting the central roof to blend with the much larger volume of the aft third. The bilge frame starts just below the mid-height of the bow and runs ele-



gantly aft to finish up at the sugar scoop, close to the waterline. Its role as a stiffener and deflector, adds to the interior volume due to the effect of the step. The innovative interior layout design means the mast has moved aft (and there is then a support strut for this below the coachroof) and there is no longer the forward bulkhead. To achieve this, the architects have placed two strong stainless steel transverse beams in the bottom of the nacelle. These are substantially bolted into the bulkheads. The effect of these is to block the composite structure in terms of flexion and torsion and also to take the compression forces of the rig. Like all the Leopards, the 40 is built using wet process in poly-vinylester balsa sandwich. Used as the core, specially formulated upright balsa wood offers good mechanical and gluing properties. The vinylester resin increases the watertightness and helps to prevent hydrolysis: it is used below the waterline



↑ The coachroof offers excellent volume, and it is well supported by the overall platform, whose hydrodynamic qualities are really on the ball.



↑ The Leopard 40 shows an overall balance which, thanks to the fineness of the hulls and good bridgedeck clearance (78cm), allows it to remain comfortable and perform well in a choppy sea, even upwind.



The depth of field of a concept which opens forward and removes the bulkhead aft →



The helm station is good, and the amount of kit here doesn't impinge on sail handling, thanks to the assistance of the electric winch. Taking in a reef (with the continuous reefing lines) is easy, as is furling the genoa. Visibility is good, and the feel of the helm is direct thanks to the mechanical linkages.

as well as for the keels and the rudder blades. The sandwich section comes down below the waterline and joins the monolithic base (25cm wide) of the hull assembly.

### **A RENEWED INTERIOR DESIGN: A STEP FORWARD!**

Franck Bauguil, the Vice-President of boat sales division of the Tui Group (Leopard Catamarans, Moorings, Sunsail, etc.) has been in contact with Leopard users for many years from his office in Clearwater, Florida. He analyses responses from charterers and owners, so is in the best position to translate people's experiences into evolution of the products. He has been heavily involved in producing the specifications for the L40. Not content with just contributing to the forward access, Franck, in conjunction with Alex Simonis and Maarten Voogd as well as the Robertson & Caine design team, wanted to bring back a feeling

of space to the interior dining area which had been moved aft in conjunction with the exterior dining space. The seating in a big L-shape around a large table occupies the left hand side of the deck salon, opposite an angle unit which houses the electric panel and the large-capacity refrigerator drawers, which are proven to be super-efficient. The technical cabinet, protected by a plexi-glass door, is comprehensive, clear, easy to understand and uses quality components. A great achievement which I found really easy to use. The table is adjustable in height and can seat 6 to 8 people, but also transforms into a lounger for night watches when under way. Nice touch! The L-shaped galley extends forward, and has a good view. With Corian worktops, a well-suited gas hob, and built-in oven low down, the cook's job is quite safe in a choppy sea. There are plenty of drawers (including a special one for large utensils) and stowage, but I have the same doubts as I did on the 51PC concerning the durability of the hinges. Where they have succeeded however, are the hand rails, the table leg and the polished stainless fiddles on the shelves, which are solid and look good. The chart table has been reduced to a desk, and this is good, because it avoids being taken over by electronics. Useful little corner shelves with fiddles are fitted for stowing all the gadgets that the modern seafaring geek cannot manage without. In the owner's version, the port hull is isolated from the rest of the boat by an effective sliding door (but there is no system for holding it open). The floor area is impressive (20% more than on the 39, for a paltry 7 % increase in weight, according to the builders). The bunks are very comfortable, but the frame supports for the plywood panels are not sufficient. The profusion of stowage areas will appeal to crewmembers on board for long periods.



↑ The L40 gives a feeling of space to the salon. We really like the height-adjustable table, and particularly the galley which is now forward, offering a spectacular view over the anchorage...



↑ A successful layout in the nacelle. The practical L-shaped galley, very effective fridges, a functional and understandable electric panel and a large dining area to seat 6 to 8 people round a table which transforms into a bunk when under way. The new style of light oak is a clean break with the cherry cabinetry of the previous generation



Desk and XXL bathroom on board the Leopard 40



The port owner's cabin would make you question whether this catamaran really is only 40 feet long



### **GREAT ACCESS TO TECHNICAL EQUIPMENT**

Bringing together all the water intakes and all the seacock outlets (in composite - neat!) and some of the filters around the keel sumps as well as identifying with thermo-engraved markings, shows how seriously the yard takes the ease of understanding the systems. The same goes for the water system located in a locker close to the galley, which also houses the extinguisher. The effort which has been made to make the vessel easy to understand and to charter, is backed up by an illustrated color user manual, available in both paper and digital formats.

### **THE NEW CONTEMPORARY STYLE**

First seen in 2014 on the 51PC, the white oak effect gives a clean appearance, and is easier to look after than varnished cherry. The headlinings are cleverly secured by clips, and the quality of the natural and electric light (LED spots and strip lights) is excellent. The adjustment tolerances of the floorboards could be reduced.

### **ENGINE COMPARTMENTS**

I liked the set-up for the filters (water and diesel) and the coolant tank, on a laminated panel, as opposed to just being screwed into the composite as is so often the case. Access around the motors is ok for the smaller mechanic: the Yanmars are fitted facing aft, with the saildrive legs at the front, which increases the distance of the turbulence from the rudders. The cables from the helm are good, and the (removable) machine-welded arms link the rudder posts to the 5 meter long cross-bar, whose flexing is taken care of by spacers made of Ertalon. However, a central

roller might help to reduce friction. The fixings and seals of the cover panels need to be improved.

### **ON DECK**

The ergonomics of the relaxation areas have been carefully designed: the boat/sea interface aft transforms the geometry of the cockpit by giving clear access to the large aft platform, which is completely open to the anchorage when the dinghy is in the water. The wide sugar scoops permit easy access from the dinghy to the boat. The little forward area accessed by the door from the salon could be transformed into a sunbathing area with the addition of a small improvised mattress. This area is enclosed by big lockers which house the fresh water tanks (fairly well forward!), and the anchoring system is well designed. There is also space for the optional generator.

### **A LIVELY WINDY TEST**

The Baie des Anges, off Nice, France, is known among racing sailors for its light airs. However, each time we come to try out a Leopard, we are met with more serious conditions. For the seatrial of our 40, it was blowing 20 to 35 knots WNW. While alongside the dock we had got the gennaker ready. This was quickly stowed in the forward cockpit (not

### **TECHNICAL SPECIFICATIONS**

Naval architects: Alexander Simonis/Maarten Voogd
Builder: Robertson & Caine (South Africa)
Length: 11.99 m
Waterline length: 11.62 m
Beam: 6.72 m
Draft: 1.17 m
Weight: 9340 kg
Bridgedeck clearance: 0.78 m
Air draft: 19.45 m
Mainsail area: 56.4 m <sup>2</sup>
Genoa: 39.5 m <sup>2</sup>
Gennaker: 94 m <sup>2</sup>
Motors: Yanmar 2x29 hp
Transmission: saildrive forward of the motor
Propellers: three-blade fixed
Water: 780 l
Fuel: 360 l
Holding tank: 110 l
Price: €275,000 ex-tax
Main options in € ex-tax:
Bruntons folding propellers: 3,452
Blackout blinds salon: 2,917
Electronics pack including autopilot: 10,357
Electric pack (shower power / interior sockets): 4,643
Charger: 1,060
4 x 70W solar panels: 5,595
Spectra 63 l/h watermaker: 17,560
Bowsprit and gennaker: 5,357
Transport (USA or Europe)+ delivery: 53,757
Price of the boat we tested (owner's version): €401,917 ex-tax

## **THE COMPETITION**

	<b>New 40</b>	<b>Nautitech 40'</b>	<b>Lagoon 400 S2</b>
<b>Model:</b>	Fountain Pajot	Bavaria	Lagoon
<b>S2 Builder:</b>	O. Racoupeau	M. Lombard	VPLP
<b>Designer:</b>	95 m <sup>2</sup>	91 m <sup>2</sup>	80 m <sup>2</sup>
<b>Upwind sail area</b>	8.9 t	7.8 t	10.3 t
<b>Weight</b>	N/A	315 000	259 000
<b>Price in € ex-tax:</b>			





*Ventilation, storage and large portlights for a good exterior view. The aft cabins are comfortable and the headlinings cleverly secured with clips, making them removable*



*Cleverly designed bathrooms: well-equipped and with modern functional faucets*

*Maintenance access is ok for someone not too big. Note the filters and coolant reservoir mounted on a laminate panel rather than being screwed into the composite*



*Easily understood plumbing, with fresh water pressure pumps grouped together in a galley locker. I liked the thermo-engraved labeling*

something it was designed for, but very useful all the same!) because a big spring Mistral was blowing 45 knots offshore, and we already had 20 knots by 9.30 in the morning. With full main and the genoa unfurled, the Leopard boldly set off, showing a lively pace. First impressions were good, the helm was light and the cable steering linkage allowing for a good feel from the rudders. The boat is well-balanced, and doesn't shy away from pointing upwind. We weren't trying to push it to the minimum angle we could in this chop, but we reached a good compromise, close-hauled at 7.5 to 8 knots at 55-60° off the wind. For the next hour and a half, the NW wind continued to build, kicking up the sea. The 40 accelerated well in the troughs, and rode over the waves with agility. The movement was lively, of course, but the manoeuvres were dampened and the slamming wasn't too serious: inside the boat, life could continue as normal. The forward curved face of the nacelle took the occasional wave, but it wasn't brutal. The fineness of the bows, the bridgedeck clearance and the cat's overall balance allowed it to perform well in these testing conditions, upwind in a big sea. We quit putting reefs in just before the arrival of some big gusts of over 30 knots, following our course on the same heading under genoa alone. We started with full main (there are two tackles and the sheets come back to the helm using the German sheet system), and the tail is led to the electric winch without any particular difficulty. However, this should be done carefully, paying particular attention to the final sheeting-in. The 40 set off at a lively pace, so it was now time to reduce the headsail. The lead for the furler is at the perfect angle for the sail-handling winch: ease the sheet out by hand, take in the desired number of rolls, sheet in again, and that's it. The Mistral was getting ever stronger, and becoming a bit too familiar with 35 knots: the two

maneuvers were effected just in time, as is necessary during boat tests, where we tend to push the boats a little bit harder than would the careful sailor who had already anticipated the conditions. Even driven hard, the 40 showed great lateral stability, never losing grip. You Tacking in a choppy sea is possible, with the speed and the anti-leeway design allowing the boat to pivot quickly, getting you through the wind. Downwind, the boat maintained a good speed (9-12 knots), and the feel at the helm was fine in these conditions, with good directional ability. The halyards gave a little (the clutches are large), so perhaps Dyneema might be better for the mainsail and the jib. This session showed the dynamic qualities of the boat, its consistency and ease of use. Toward the end of the afternoon, we made the most of a calm spell to get the gennaker up, and here the Leopard really proved itself with a nice relaxing run at 12 knots in 18 knots of wind (as measured on my Garmin Quatix watch). Not bad for a 12 meter cruising boat!

### CONCLUSION

The Leopard 40 is lively and easy to use, well canvassed, yet tolerant in a chop, with a good measure of safety. We found qualities which have evolved from the 39, with the increased interior volume. Our test boat was hull number two, so almost a prototype, and it was therefore not surprising to note a few imperfections in the finish, which will be ironed out when in full production. This is a well-built boat and will please the user. The 2 x 29 hp motors are sufficient, but need to be hooked up to modern, folding propellers, which wasn't the case on our test boat, with its fixed blade props.

- ◆ Behavior on the water and technical clarity
- ◆ Surface area of the interior layout
- ◆ Very effective refrigerator drawers
- ◆ Courtesy light in the companionways and red night-light at the helm

- ◆ The large sliding door is not very high
- ◆ The bed bases need reinforcing
- ◆ The cupboard hinges are a bit lightweight
- ◆ The forward opening hatches in the salon are awkward to manipulate
- ◆ The aft lifelines are too low

Forward access via the nacelle will be welcomed by crews. The benefits of this setup will be appreciated most often when coastal cruising or at anchor.

Large lockers with surprising volume for housing the optional generator, the windlass, the anchor well and the fresh water tanks (700 liters! The watermaker would make a smart choice). A mattress would transform them into a sunbathing area.

All the sail-handling functions, hoisting, sheeting and lowering, are grouped together on a console at the helm station, which is served by two winches, one of which is electric. An essential.

The strong point of the 2015 version of the 40 is its interior volume and innovative layout. There is a large dining area and the galley is forward.

Two purchases for the sheet run back to the cockpit, replace the track and mainsheet car.



The frame is attached to the bow at half-height, and the hulls pass through the chop with ease.

The slightly overlapping genoa is in exactly the right place on the 40. The sheeting angle cannot be adjusted from the cockpit.

Neat idea: the steps to the coachroof and also the safety handle opposite

As well as its role as stiffener and deflector, the bilge step optimizes interior space



## Sunsail 404