



at this year's Earls Court Boat Show, one of its

many newsworthy features was its power

The first pair of Mercruiser's new 270hp V8

diesels were slotted under the cockpit floor,

answer to the emerging 200hp-plus diesel

recently tested the latter in a Sunseeker 38 Martinique (see MBM Oct 92 p34). So a test of the 39 gave an ideal opportunity for comparisons

The new engines were first installed in production boats during the early months of this year, with an on-water presentation to dealers and press following at the end of April in the South of France. Here too, the full range of

new step for the American giants.

married to the equally new Bravo Three twin-

the end of last year, these engines represent a

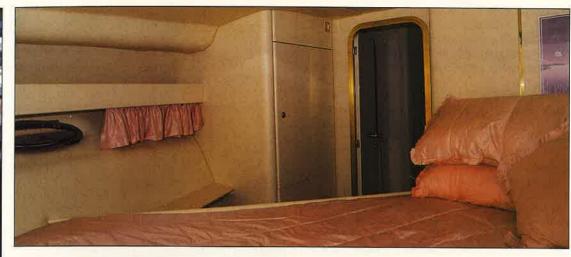
and the 247hp ME420 respectively, and we had

installation.

to be made.

Above: unlike its predecessor WHEN Sunseeker introduced their 39 Martinique the 38, the 39 Martinique has a one-level cockpit. There is seating for ten people, and the tables hinge cleverly out of the way behind the cushions. Left: the WC has marble top surfaces and a propeller contra-rotating outdrives. Introduced at discreetly lidded toilet. Above right: there is full 6ft headroom in the forward Volvo and Yamaha have already unveiled their double cabin. Right: alongside each other to port outdrive market, in the form of the 230hp KAD 42

are a four-seater settee and well-equipped galley.



Mercruiser engines and drives were available for hands-on testing.

Motorboats Monthly were invited down two weeks ahead of the field, in conjunction with our sister trade magazine International Boat Industry, to carry out full performance-testing of the new engines, including speed, acceleration, fuel consumption and noise readings. Mercruiser issued these to their guests as impartial and independent test results.

We will be reporting elsewhere (see p28 and next month's MBM) on some of the other boats and engine packages we took out for trials, but we will concentrate here on the new diesel and on the twin-prop Bravo Three leg.

THE BOAT

Sunseeker's Martinique started its life four years ago as a 36ft (11m) boat. It later grew by two feet. with changes in layout and accommodation, and now has had its second relaunch as a 39, again with changes both to the cockpit and the interior.

The format falls into what Sunseeker call their Cruiser range, with the accent on comfortable accommodation as well as speed; this is in contrast to the Performance range, where narrower hulls and lower headroom allow even greater speeds.

The hull is based on the 38's medium-to-deepvee lines, with minor modifications.

Exterior

The layout of the exterior and cockpit have undergone several alterations from the previous

At the stern, a full-width integral bathing platform is fitted with a central boarding ladder under a hatch. A recess in the port wing houses the shorepower socket, with a matching recess to starboard holding the hot-and-cold shower. Lockers in the transom, port and starboard, will take fenders, lines or watersports gear.

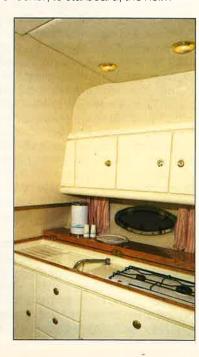
A central step and hinging flap give access to the cockpit. This is now on one level, avoiding its predecessor's potentially hazardous step forward.

The aft section has seating port and starboard, with room for up to 10 people. Clever features here are the cockpit tables port and starboard, which hinge up and backwards out of the way behind the cushions. Lockers under the seats will take large amounts of loose gear, while deep. narrow lockers under the moulded GRP glass-holders could take spare ropes.

Forward of the settees are cabinets port and starboard, containing an ice chest, a sink and further storage.

Ahead again are forward-facing double seats on both sides. The one to port will take passengers or the navigator, with a grab-handle and small cave-locker; to starboard, the helm





seat sits one person comfortably, two at a pinch.

The helm console is well laid-out, with a pair of single-lever controls well placed to the right. The power-trim buttons for the drives are set in the left-hand head, allowing immediate control under

The major electronics are recessed into a GRP panel, with a row of rocker-switches ahead of these and a walnut-veneered dashboard for the engine instruments.

A deep windscreen gives good protection from the slipstream when you are sitting down, while a pair of large wipers ensures visibility when the weather gets rough.

When you step out of the cockpit, reasonablewidth side decks give an easy passage forward. with solid outboard rails and a substantial gunwale lip. Our only query here concerned the GRP goalpost mast: the raceboat-style wingtips might look the part, but they are set just at eye height as you lean inwards.

The good moulded non-slip of the side decks continues over the coachroof, which has a recessed sunpad area.

The foredeck area is superbly thought-out. with the anchor windlass completely concealed under a hinged hatch, which also gives access to a deep chain locker. Unfortunately this has no divider, so it cannot be used for stowing anything else, but otherwise the whole arrangement lends itself perfectly to Mediterranean boating, allowing stern-to mooring in the harbour or access over the bow to the beach.

Interior

The accommodation of the 39 Martinique has also been rearranged from that of the 38.

The door to the aft cabin is now in the starboard aft corner of the saloon, while the bathroom, already on the starboard side, has been altered in configuration, allowing it to have one door from the saloon, and one from the aft cabin. This has made the sleeping arrangements more flexible and versatile, as the saloon settee can be used as a second double berth. The forward cabin adds a third double.

The galley is now located to port, and is well equipped for a boat of this size. Under a double-hinged lid, you have a sink plus a twinburner gas hob in a one-piece GRP moulding. Overhead are lockers with custom-made stowages for Sunseeker crockery and glasses, while below is a gas oven, four drawers, a medium-sized locker and a small fridge.

The furniture here, as throughout the boat, is in cream lacquered wood, to an excellent standard. matched by maple veneer trim and vinyl bulkheads and overheads.

Forward of the galley is a four-seater settee to port, with lockers underneath, but these go straight to the inside of the hull, with no lining. Opposite is a small sideboard, with a cocktail cabinet beneath, and the electrical panel above. Aft of this are the doors to the aft cabin and the toilet compartment.

The aft cabin has two single berths, running fore and aft, and alongside them a cavernous locker running out to the port side of the hull. Headroom over the berths is 3ft 6in (1.1m), increasing to 6ft 2in (1.9m) over the forward portion of the cabin. A small hanging locker plus further lockers under the inboard berth complete the arrangements here.

The toilet compartment is a reasonable size, with a moulded GRP lower half, a marble worktop with inset basin, an electric WC under a discreet lid, and four good lockers.

The forward cabin has an angled double berth, with two drawers underneath, a large hanging locker, two full-length shelves, and 6ft 0in (1.80m) headroom.

Engineroom

The engines are mounted under the cockpit, with routine access via a central hinged hatch. For further access you have to lift out the aft seats. then lift the floor sections beneath them.

A conveniently placed step on the forward bulkhead helps you climb down, but then you immediately step on either the bilge pump or the port engine fuel lines. A simple floor across the hull here would avoid both, and give you a comfortable working platform.

Access between, round and over the Mercruisers is excellent, though the multiple belts and pulleys on the front of them are unquarded and would be a hazard if you were close by with the engines running. Twin Lucas 296 filters are mounted on the forward bulkhead, but both draw from the single tank, with no crossover system in case of a major blockage.

A single 2kg automatic fire-extinguisher is mounted on the bulkhead which, like the hatches, is covered in eggbox-type foam insulation. Secure battery boxes are mounted outboard to port, with two 12V units in each. A 50A Sterling charger is mounted on the bulkhead.

Handling and performance

When we tested the 38 last year, fitted with a pair of Yamaha's then brand new ME420 247hp outdrives, we encountered some of the most severe conditions for a boat of this size. It came through with flying colours, fully living up to the Sunseeker reputation.

The 39 shows the same traits, predictable and safe, and handling both a Mediterranean chop and longer rollers.

The extra 0.5 tonnes displacement would be expected to take something off the top speed, but this is balanced by the extra 20hp or so provided by the Mercruisers. We recorded a 38.5 knots maximum, compared with 38 knots with the Yamahas. The 0-20 knots acceleration was half a second better, at 8.3sec, the extra props giving an obvious edge.

Incidentally, our main test figures were carried out with 30% fuel, and two crew. Two weeks later we tried the boat with 80% fuel and six crew, and still recorded 38 knots, though the acceleration time was up, to 10sec.

The fuel consumption of the Mercruisers was some 17% higher than that of the Yamahas at maximum speed. But remember that this was with 9% more power and a 7% heavier boat.

At this level it is not possible to give precise comparisons, but it would appear that the indirect-injection Mercruisers are around 8% more thirsty than the direct-injection Yamahas, which is almost exactly what we would have predicted. The oft-quoted advantage of indirect injection is that it is very clean, and the Mercs confirmed this theory, producing virtually no

Sunseeker 39 Martinique

Engines: twin Mercruiser D7.3L Bravo Three diesels, 270hp at 3200rpm, V8 7.3lt.

Conditions: wind W Force 1, sea moderate. Load: fuel 30%, water 25%, crew 2.

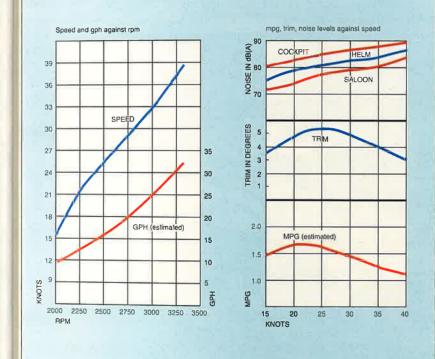
							Sound levels dB(A)		
rpm	knots	gph	lph	mpg	range	trim	saloon	fwdcab	ckpt
2000	15.4	10.3	47	1.50	270	4.0	73	76	81
2250	21.4	12.9	59	1.66	300	5.0	75	80	83
2500	25.3	15.5	70	1.63	293	5.0	77	80	85
2750	28.5	19.2	88	1.48	266	5.0	79	81	87
3000	33.0	24.4	111	1.35	243	4.5	80	84	88.5
3300	38.5	31.9	145	1.21	218	3.5	82	86	89.5

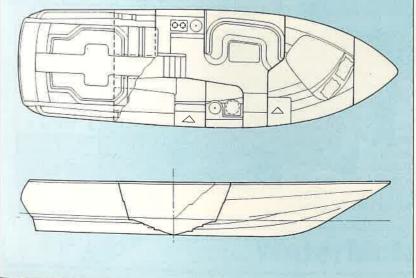
Acceleration: 0-20 knots, 8.3sec.

Loa	39ft 0in (11.90m)	Displacement	7.5 tonnes
Beam	12ft 0in (3.65m)	Fuel capacity	180gal (820lt)
Draught	3ft 5in (1.04m)	Water capacity	45gal (205lt)

Price: £122,275 ex VAT with twin 270hp Mercruiser diesel outdrives.

Builders: Sunseeker International, West Quay Road, Poole, Dorset BH15 1HX. Tel: 0202 675071, Fax: 0202 681646.





smoke at any time, even when started from cold. Actual consumption figures were 1.21mpg at the maximum speed of 38.5 knots, 1.48mpg at

28.5 knots and 1.63mpg at 25 knots, giving maximum range figures of 218nm, 266nm and 293nm respectively.

Noise levels were 86dB(A) at the helm and 89.5dB(A) in the cockpit at full speed, dropping to 81dB(A) and 87dB(A) at 28.5 knots.

On the new Bravo Three drive, the Mercruisers were impressive. Acceleration was good even with the boat loaded, and it was possible to pull out with the legs in the neutral position, leaving the trim buttons untouched.

In practice, you would still want to pull the legs in for the fastest acceleration, and trim out for top speed, but this merely fine-tunes an already impressive performance, and is made simple by the combined trim buttons on the throttle lever. Turns could be made as tight as you wished, with the twin props gripping right the way through.

Conclusions

We gave the Martinique 38 our seal of approval last year, and the 39 improves on a well tried and popular formula.

The Mercruisers, however, were new to us, and certainly gave an excellent first impression: plenty of power, plenty of torque, and clearly more available from the same block.

The new Bravo Three twin-prop drives would appear to be close to right already, and this was their first outing. They can only improve as more installations come through.

ENGINES AND OUTDRIVES

Mercruiser are the undisputed kings of the sterndrive castle. Their range stretches from 140hp to 1000hp, powering craft from small runabouts to 120mph offshore racers. Their total worldwide sales last year exceeded those of all other manufacturers combined. In the huge North American market, where a staggering 75,000 sterndrive boats were sold in 1992, 70% had black horses under the hatches.

Almost all these sales, however, are of petrol units. In the USA, where gasoline has cost less than a dollar (about 60p) per gallon until recently (and is only now around \$1.30 per gallon), diesels have not made any impact in boats under 40ft. But the rest of the world is increasingly demanding diesel-powered boats, not only cruisers but mid-range sports cruisers.

Here, Mercruiser have traditionally had little to offer, and it is an omission which has caused them to lose market-share and credibility as boatbuilders tend towards one-company sourcing for their engines. So they have made several attempts to satisfy the demand, particularly in Europe.

Until now they have opted for marinising existing European engines. As long as 15 years ago they produced a model based on a 145hp Renault engine. Then, five years ago, they took over the VM range of five- and six-cylinder engines which BMW had successfully launched into the marine world. This gave them 150hp, 180hp and 220hp models, either in inboard form or married to the Bravo II outdrives, and these have made their mark on the market.

At the same time they were looking for a source

Capacity 7300cc.

BOAT REPORT

of engines which could give them the option of raising power outputs, to fill the 250-300hp bracket, and which could be sourced in the United States, to reduce production costs and protect them from the vagaries of the world currency markets.

The bedrock of Mercruiser's petrol engine range was the long-serving V8 automotive block which, with capacities ranging from 5lt to 8lt, produced low-revving, low-stressed, easy power, giving long life at a low initial price, and with economic repair and maintenance costs. So it was only logical that, when they decided to take their next step forward in the diesel market, they would look to automotive V8 equivalents for their base units.

The range they chose was that made by Navistar, and fitted to Ford trucks and light vans. Since 1982, a remarkable one million of these units have been produced, presently at a rate of 100,000 per year.

In its roadgoing form, the Navistar V8 is a naturally-aspirated diesel, with a capacity of 6.9lt to 7.3lt and producing around 230hp. To change it to their requirements, Mercruiser have marinised it and added a wastegated turbocharger and intercooling, to boost maximum power and low-end torque.

In doing this, their development engineers have worked closely with Navistar, to upgrade the base unit to take the greater pressures and loads associated with turbocharging. Uprated pistons, with oil-cooling, stronger con-rods, wrist pins and bearings, plus Inconel valves, have contributed to a stronger engine.

Other modifications in the marinisation procedure include a high-mounted oil-cooler and filter, for easier servicing in an engine compartment, handed oil fillers and dipsticks, a high-mounted starter motor, and high-level mounts which make it suitable for installing in deep-vee hulls. The resulting engine has an overall envelope equal to that of the equivalent V8 petrol unit, making it a direct replacement option.

The power of the D7.3L, as it is known, is 270hp at 3400rpm, but the capacity of the engine, nearly double that of its Volvo or Yamaha rivals, clearly indicates that it has power in reserve. An uprate to 300hp looks easy to achieve, with another 25-50hp possible.

Indirect injection makes the Mercruiser inherently less prone to smoking on start-up, and smoother and quieter when idling, than its direct-injection competition. The disadvantage is increased fuel consumption, though our test figures show that this is only in the order of 8-10% at maximum power.

A factor we do not often discuss, but which the new Mercruiser may highlight, is the rising cost of manufacture, maintenance and repair of boat engines.

The modern marine diesel has become increasingly sophisticated and complicated. Ever more power is being squeezed from blocks of the same capacity, necessitating complex engineering and associated equipment. Whilst this does not necessarily produce weaknesses or problems, the marine environment is a harsh one, and the pattern of usage of a pleasure boat, with long periods of idleness followed by short full-power trips, can cause costly breakdowns and failures long before the base unit has

started to wear out.

In this respect the new engine shows considerable promise. It is proven in large-scale production, is low-stressed with a large displacement, and has simple systems. A vast network of dealers worldwide will ensure readily available servicing, provided all the agents are quickly brought up to speed on diesel maintenance and repair.

Inboard versions of the D7.3L are available, with Borg Warner gearboxes, both conventional and vee-drive, for shaft-drive installations. But in the Sunseeker 39 we tested, the engines were coupled to a pair of the latest Bravo Three outdrives with twin contra-rotating props.

The Bravo Three represents a major about-face for Mercruiser, who previously eschewed the concept of a twin-prop outdrive.

In the water, the unit seems to work well, giving a viable alternative to Volvo Penta's DuoProp. However, the real battle may take place in the courts. Volvo claim they have an untouchable patent on the DuoProp principle; the men from Mercruiser think otherwise.

This is one area where we will decline to make a comment or prediction. We will stick to testing boats instead.

Mercruiser D7.3L

Revolutions 3200-3400rpm.
Cylinders V8 turbocharged and intercooled.
Injection indirect.
Crankshaft power
270hp (201kW).
Propshaft power
238hp (178kW).
Weight with Bravo Three drive 1447lb (658kg).
Weight with gearbox
1280lb (582kg).

Below: the Martinique handled predictably and safely in the Mediterranean. Bottom: the Mercruiser D7.31 diesel V8 engine and Bravo Three contra-rotating twin-prop outdrive.

