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Bristell NG5



Europe isn't exactly short of two-seat, low-wing, LSA type aircraft, but the Bristell gets a lot right and has a price that may leave you scratching your head. Ian Seager joins UK dealer Farry Sayyah for a quick flight

When we take away the aesthetics of an aeroplane, we're left with a bunch of numbers. There are numbers that measure performance, economy, size, weight and a hundred other things besides. The Bristell is no different of course, but one of its numbers stands out. The price. Want a full, quick-build kit with a Rotax 912 ULS included? That'll be just over £40,000 plus VAT. Whichever way you look at it, that's a bloody good price for a complete quick-build kit, engine and prop. It's a price that frankly may make you wonder if any of the Bristell's other numbers are strangely deficient, and there's really only one way to find out.

UK dealers Farry Sayyah and Tony Palmer brought the Bristell to Popham for me to take a look at and to go for a flight. If you've seen G-STLL around the shows (it was at the Popham Microlight Trade Fair and at AeroExpo) you'll know that it's a low-wing, metal two-seater with a bubble canopy. It's also a good-looking aircraft that's been drawing a lot of interest, some admiring glances and according to Farry over 20 orders so far. In the US the Bristell NG5 is available as a factory-built SLSA but in the UK it is being brought in as a quick-build kit rather than as an LSA; coincidentally the first kits arrived in the UK and were delivered to customers the day after we flew at Popham.

I was at Popham with **FLYER** regular Justin Cox who, when he's not flying or writing, spends his time restoring, fixing and generally looking after aeroplanes. Show Justin a parked aircraft and before you can say 'mine's a bacon roll' he'll be crawling underneath poking a torch into all sorts of holes, and so it was with the Bristell where the underside of the wing was generating some interest.

The aircraft's designer, Milan Bristela, had worked on the SportCruiser and felt that he could come up with a better wing. Justin had spotted the result, which for anyone who really wants to know the specifics is a wing that starts with an MS316

profile at the root before blending into an MS313 at the tip. For the slightly less skilled (i.e. me) it also has a different planform, which is slightly easier to spot while still being a bit nerdy.

As we're talking wings, it's worth mentioning that there's electric aileron trim (a £626 option), plain flaps and one fuel tank per side, each of which contains 65lt making for an endurance that's pushing nine hours at economy cruise. All of the Bristells in the UK will have the shorter 8.13m 'speedwing' instead of the SLSAs 9.13m wing and, thanks to that missing metre, UK Bristells will stall a couple of knots faster than their US brothers.

The overall impression is of an aircraft that is well-made and well-thought-out — there are some beautiful details, like the carbon-Kevlar cowling that is both light and good at absorbing much of the noise from the Rotax, an engine that is extremely quiet from the outside but that can be pretty noisy inside thanks to the bare metal, weight-limited airframes in which it frequently finds itself. A couple of things struck me while looking at some of the details, the first thing being that under the cowl there's a plenum that, amongst other things, will supply carb heat for the Rotax. The plenum is painted in the same colour as the body so it does add a bit of bling and glamour to the engine compartment, but frankly I'd take it out and replace it with one of Nigel Beale's carb heat collars, doing away with the carb heat control altogether. Then there's the nose-leg fairing. Is it just me or does that look, well, just a bit weird and out of character with the rest of the aeroplane?

Leather luxury

Getting in is a real treat for a couple of reasons. For starters, access and exit is from the back of the wing rather than the front. And then there's the cockpit environment, not only are the leather seats (a £1,588 option) comfortable but the whole area is genuinely spacious. In fact, the cabin width is

1.3m or just over 51 inches. That's a bit wider than a Cirrus SR22 and nearly nine inches wider than an RV-7! I almost needed the intercom just to chat to Farry, who I have to congratulate on what is to my mind the model interior. It's clean, uncluttered and has everything you need.

In front of me was a Dynon D100 screen, a neat row of seven toggle switches, each with an active green light in the end of the switch, a trim indicator and a backup ASI. The centre stack contained a Skymap GPS, radio and transponder, a four-position flap selector, the fuel cock and a couple of organ-stop-style controls for carb heat and the parking brake. Between the seats sits the throttle and choke. Behind the throttle is a small rocker switch that controls the FITI ECO VP prop (an option at £2,858). This works in a similar way to a helicopter's swashplate and is driven by a screw jack pushing the plate forwards in the prop hub. Behind that there's a small, covered receptacle that can be used for storing small items.

The seats are fixed in place and as a result the rudders are easily adjustable — in keeping with the generous width there's more than enough legroom making for a genuinely comfortable cockpit. Finally, the luggage space sits behind the seats and is good for 33lb. It's possible to install a wing locker in each wing and each of these is good for another 44lb, but Farry and Tony have built their machine to be light and simple and overlooked this option. That 'keep it light, keep it simple' philosophy has paid off and the aeroplane has an empty weight of just 302kg, so there's plenty of available load for fuel, Farry and me.

Benign and enjoyable

With the engine warm I make for the runway, enjoying the direct nosewheel steering on the way. The prop is motored to fully fine (there's no indicator, but press and hold for a bit seems to do the trick) and the trims and flap set. The

acceleration isn't stunning and any tendency to pull to the left is easily sorted with the rudder pedals, although it does take a conscious effort to keep my toes away from the brakes.

Lightweight aircraft don't spend very much time on the runway, which probably explains why not a huge amount of attention seems to have been paid to comfort on the roll. As we accelerated along Popham's grass you could feel every bit of runway roughness through the airframe — no wonder Farry wanted me to unstick positively to get the Bristell into its natural habitat as quickly as possible. With flaps up and the prop coarsened a bit, we climbed away at over 1,500rpm. I'm told that it's possible to get even better by staying fully fine and climbing at a silly angle but 1,500rpm is more than enough and I quite like to see what's ahead if possible.

Once in the cruise, the prop goes fully coarse (again, press the rocker switch and wait a bit) and let the aeroplane accelerate. We took a look at the performance with the prop coarse and 5,000rpm, which the engine would be happy to do all day. The Dynon's ASI gave us 110kt for what would be a fuel burn of about 18lph, so a still air range of nearly 740nm with half-an-hour's reserve. Personally, I like the Rotax at 4,800rpm where it sounds a bit more at ease with the world and losing a couple of knots from the cruise speed is a price I'm more than happy to pay.

The handling is nice with steep turns and turn reversals a doddle. Unlike the SportCruiser, the Bristell is not at all oversensitive in pitch, the only strange bit of handling coming when we were flying cross-controlled in the wake of another aircraft for some photography; it felt like the airframe was talking and it was assertively expressing its displeasure at the positions it was being asked to assume.

Slow flight was, well... slow, and a quick look at stalling clean and with full flap was pretty



At 51in, it's the widest cockpit in its class and very comfortable



You can see more photos from this feature on the iPad edition of FLYER and on the Editorial Extras section of the FLYER forum at forums.flyer.co.uk

The Bristell's handling is lively without being at all skittish



Justin Cox (right) can spot an interesting aerofoil at 100 feet

benign. Approaching the stall progressively there's no real break to speak of, just a gentle nodding at what the Dynon told us was 25kt. Extended slow flight had the effect of filling the cockpit with the odour of exhaust, so while I'm sure it could be provoked into doing something a bit more radical, I decided to leave that to those with more time or more skill. In everyday flying, it's benign.

Stress-free landings

I'd like to say that the landings were really tricky, that the hot ship was difficult to slow down and that only real pilots with flight bags the size of rolling suitcases will be able to cope, but I'd be lying. Slowing down when you have a liquid-cooled Rotax requires little or no descent planning and 30° of flap makes life even easier. I was surprised on each of my circuits just how positively you could wrestle the aeroplane into the air, not something I'm keen on, but taking into account the rough ride on Popham's grass it was perhaps the lesser of two evils.

The Bristell is one of those aeroplanes that marries benign flying qualities with enjoyable handling and a miserly fuel burn. It's not the quickest two-seat Rotax aircraft out there, but then again its cabin is the largest and you can't have it all.

A short history

THE LSA CATEGORY may be less than 10 years old but that hasn't stopped a lot of companies and aeroplanes coming and going, so hang on to your headset for a quick recap of the Bristell's heritage.

Milan Bristela worked for Evektor on the SportStar and EuroStar, two fine aeroplanes. He then worked with Chip Irwin at Czech Aircraft works where he had a hand in the SportCruiser (which for a while was also the PiperSport). CZAW (Czech Aircraft Works) and its VC partner went through all sorts of changes and legal machinations, and Milan went off and started Roko with Antonin Kocar where the NG4 was produced – I'll come back to the NG moniker shortly.

Things didn't quite go to plan at Roko; Milan, presumably as a result of his experiences at Evektor, CZAW and Roko, decided to set up on his own and created BRM, a name supposedly inspired by British Racing Motors. BRM is the manufacturer of the Bristell NG5.

Back to those letters NG. The letters stand for New Generation and go back to the NG1, which was the Mermaid produced by CZAW. The NG2 was the Parrot and the NG3 the SportCruiser, both also produced by CZAW. The Roko was the NG4 and the Bristell the NG5. The NG4 and NG5 look very, very similar but I'm told that the NG5 encompasses a bunch of changes that include both design and structural details.

I once employed a sales person who told me that cheap things are rarely valuable and that valuable things are rarely cheap. It's an observation that has served me well over the years, but there are times when it doesn't ring true, and one of those occasions is the Bristell. At the start I mentioned the price of the aeroplane; we could call it good value for money or we could call it aggressively priced, but the first thing that went through my mind when

I found out the price was 'Wow! That's cheap!' and regardless of its other good attributes, of which there are many, it's the price that really sets this aeroplane apart. I'm happy to say that when it comes to the Bristell, cheap doesn't mean lacking in value, it just means it's not very much money for what you get and because of that I think it'll do very well indeed, even if the nosewheel fairing looks like it has been modelled on a pony saddle. ■



Clean and clear, what every panel should be like





Customer's view

JIM EDGEWORTH started flying in the late 90s having spent a lot of leisure time in boats. A few years after getting his PPL, the time came to build an aeroplane and he bought a quick-build RV6-A. Jim was building the aeroplane while running a manufacturing business, and describes the process as probably one of the slowest built quick-build kits in Van's history. It was finished in 2010 and has now flown about 220 hours, including a 1,500nm tour through France. Jim clearly loves his RV with its 180hp engine and three-blade C/S prop, but soon after its completion and thanks to retirement he started to look for another project.

Jim does a lot of flying with friends, most of whom have machines that tend to fly at about 105kt; with his RV going significantly faster, he often gets to the destination first and, as he puts it, always ends up buying the bloody tea! But on a more serious note, his friends' machines obviously encouraged him to look at other options for his next project.

From talking to him on the phone it's clear

that Jim is the sort of builder/pilot who clearly spends a while thinking about things and considering options before making a decision. As part of the search for a project he visited EAA AirVenture at Oshkosh and Sun 'n Fun as well as UK events. He looked at the Sirius and the Tecnam Sierra, and naturally took a look at the RV-12 too. Each of these options had things that weren't to his liking, although surprisingly more of his negative comments were reserved for the RV than for any of the other contenders. He'd seen the Bristell and managed to fly the LSA version (which has longer wings), and was clearly impressed by the looks, the comfort, the quality and the handling, which while not as good as the RV isn't far off.

After visiting UK agent Fary Sayyah, when Fary took delivery of a kit, Jim was sold and an order placed, although he's chosen to fit the Jabiru 6 cylinder 3300 which will give 120hp — and as Jim says, will provide a bit more of a push when you go to full throttle, not to mention sounding a lot better when starting and stopping.



TECH SPEC

Bristell NG5



DIMENSIONS

Wingspan.....26ft 8in/8.13m
Length.....21ft 10in/6.65m
Height.....7ft 5in/2.3m

WEIGHTS & LOADING

mtow.....1,320lb/600kg
Max useful load.....656lb/298kg
Fuel capacity.....130 litres/34usg

PERFORMANCE

Cruise speed (at 75% power) 110kt/126mph
Stall speed.....25kt/28mph
Best rate of climb1,500fpm+
Range.....700nm+

ENGINE

Rotax 912ULS
Propeller - FITI ECO Competition two-blade VP

SEATING

2

PRICE

£41,000-55,000 depending on options

CONTACT DETAILS

Bristell UK
bristelluk@yahoo.co.uk



It may not be up to Stelio Frati's standards, but the Bristell is a good-looking aeroplane nonetheless. What's that noseleg fairing shaped like?

