

Big boy's toy

Robin's DR500 President is a rare gem for those who value a luxury tourer, says Pat Malone

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I've never met a Robin DR400 owner who didn't love the aircraft for its speed, comfort, stability, looks, and helicopter-like visibility. It spoils you so much that it's hard to know what to get next when the time comes to chop it in. Which makes it all the more surprising that its big sister, the DR500 President, never really caught on, because it does everything the DR400 can do, only more so. The factory apparently produced fewer than 50, but this probably has much to do with the well-chronicled corporate toils of Robin and its multifarious owners down the years – certainly the 500 has no shortcomings that would explain its rarity.

It scores over the DR400 primarily in comfort and size. With its cranked wings, sliding canopy and pointy spats you could easily mistake it for a 400 at a distance but it is in fact bigger in every dimension, more powerful and more capable. Its Lycoming 10-360 engine and extra fuel capacity will carry five occupants far beyond any reasonable human bladder range. It does have a few mechanical upgrades, like fuel injection, electric flaps, electric rudder trim and a wobbly prop, but basically it's a more generously-proportioned version of an already generously-proportioned plane.

Being no sylph, owner Bob Fairall decided on the 500 because he doesn't like the sort of elbow-friction you get in the average SEP, but he decided on a Robin for many of the same reasons that people choose the 400 – these French icons have that wonderful hand-built quality, attention to detail and a refreshing lack of plastic, which is almost as important as the fact that they go like stink. Because of the increased wetted area the 500 gets about the same speeds out of 200hp as the 400 gets out of 180 but given that the latter is

good for 135kt on the flat, that's no drawback. The manual claims 145kt for the 500, and that's probably achievable for a dwarf pilot with a quart of fuel on board at altitude.

Given that they're so similar in appearance, this appraisal will look primarily at where the DR500 scores over the DR400, but let's look first at the main drawback to both – and that is, of course, the fact that it's wood and Dacron and really needs to be hangared. I know some people keep them out of doors with covers on, but nobody will do that for preference if hangarage is available. If it's going to be standing out in all weathers, go for tin.

It's not until you get close to the 500 that you realise how much taller it is than the 400. Wingspan is the same at 28' 7", but the wing stands higher and it might be an idea to

provide a step up onto the walkway, as with the Robin 2160. The DR500 has the standard Jodel-issue cranked wing which makes a genuine contribution to stability and turns the Robins into such an excellent instrument platform. The baggage area, good for 60 kg, is accessible from the left side aft of the wing, through a window hinged at the top. Incidentally, while talking about baggage, it's worth noting that the C of G diagram is one of those French jobs that would baffle Stephen Hawking.

The most noticeable difference is the appearance of an extra fuel filler cap next to the baggage window. This auxiliary tank takes fuel capacity out to 275 litres – 40 litres in each of two tanks in the wing roots and 110 litres in a main tank, the filler for which is slightly awkwardly placed in the fuselage side at about mid-wing. Bob rarely fills the aux



tank because he doesn't need the extra range; there's a three-way fuel tank selector and a plunger on the panel which when pulled out feeds the contents of the aux tank by gravity into the main.

Access to the cabin is easy once you're up on the wing – the canopy slides all the way forward and you step over the sill. The seats fold down for back seat access and adjust fore and aft and up and down. Internally, the cabin gives an extra ten centimetres of headroom and ten centimetres more across the shoulders, allowing the bench seat in the back to carry three sets of seat belts – you're talking about three kids, though, and obviously there's a fuel trade-off.

The Robins benefit from a stick rather than a yoke, and all-round visibility is nothing short of fantastic – the canopy is all Perspex with a thin metal frame. Bob's aircraft, G-GSRV, has had the French ASI replaced with one that reads in knots rather than kilometers per hour, and English labels have been stuck over the French ones where possible. He has a Skymap mounted upside down on the left side – Bob is left-handed – and a three-axis autopilot switch at top left of panel. Most of the rest is common to the 400 – annunciator lights at eye level, circuit breakers on the sidewalls. Oddly, the mixture control is a slider in the quadrant but the throttle is a plunger in the panel, as is the prop control next to it. Trimmer is a coolie hat atop the stick, with elevator trim indicator for the all-flying tailplane next to the mixture slider. The flap control, a lever between the seats in the 400, is now a three-position switch next to the electric fuel pump. Another French touch is the heater-demist system – three plungers that do different things depending on whether you've got number one out and two in, or three and two out and one in and so forth, and nobody can ever



Above right: Perspex canopy slides fully forward for ease of access

Top far right: the auxiliary tank filler abaft the baggage bay – when full, the DR500's endurance can be almost ten hours

Right: the business end – similar to a DR400, but with some more sophisticated touches
Bottom right: blue variable pitch prop control, electric flap lever below the fuel contents, auxiliary tank plunger bottom right



remember what's meant to happen.

Joy of joys, the DR500 has a 24 volt battery, much better than the 400's puny 12 volt effort, which acquaints many owners with the external power point on the right rear fuselage. Starting is standard IO-360 – pump it until you get visible fuel flow, mixture to lean, turn it over and go to rich when it catches. And yes, it can be a little swine to start when it's hot, but obviously the injection does away with the carb heat, and once the revs had settled at 1200 it felt and sounded sweeter and smoother than the 400. Some of this may be down to the extra sound insulation the 500 carries, but not all – throughout the flight envelope, noise and vibration levels were exceptionally low. (One of the DR500 variants, the 'Super Regent', retains the carbureted engine.)

For taxiing, it's worth leaving the canopy open a crack, otherwise the greenhouse effect will stew your pate. Once you're rolling the ventilation is excellent – better than the 400, although you'd still be wise to take a baseball cap along on a sunny day. You can feel the extra power on take-off. Two up, half fuel and on a slightly colder than ISA day, the roll was impressively short – the nosewheel came off at 50 kts and the plane unstuck at 60, with initial climb performance settling at 1000 fpm at 80 knots and fuel flow running at 18gph. In the cruise, 23 square gave 115 knots at a fuel flow of 9gph. Power changes when levelling off can disturb the ball quite significantly and one is thankful for the rudder trim. Best of all, unlike with the 400 there is no avoid arc on the RPM gauge – you can set whatever power combination you like without fear of sympathetic resonance somewhere.

The larger Robins are not really aerobatic machines and tend to be particularly heavy for their weight on the ailerons. I'd been warned

that the DR500, with a max gross of 2400 lbs, was the heaviest of them, but in truth I couldn't say it was any heavier than the 400. It takes a good heave to get it over onto a knife edge, but if you displace the stick and then let go, all it wants to do is get back to straight and level. With the variable pitch, acceleration is notably brisker than the 400, and stall behaviour is about the same. She'll nod, wallow and mush a bit at 50 knots, but shows no sign of wanting to depart into what my old ab initio instructor used to call the "stall-spin-crash-burn-die" sequence.

The S-TECH autopilot, low noise levels and the extraordinarily comfortable seats make the DR500 a near-perfect long-range tourer. While there may be someone out there with a desperate need for seven hours' endurance, Bob reckons that two hours is about the limit of his personal range. As with all the Robins, she pretty much lands herself – sixteen inches and 75 knots gives around 500 fpm descent with a single stage of flap, there's quite a marked pitch change as the second stage is selected, and if you have a stab at a round-out she'll settle nicely. The longer nose becomes apparent in the flare, obscuring a lot of



runway.

The Robin DR500 adds spaciousness and extra luxury to an already successful formula, and Bob Fairall enhances the experience by keeping this first class aircraft in concours condition. To get a better plane, you'd need to be looking at the additional expense and complexity of disappearing wheels. You may be happy with your DR400, but if it comes down to a choice between dieting and buying a DR500, there's only one way to go.

My homebuilts, my helicopters and my Robin



Bob Fairall, owner of a builders' merchants in Godstone, Surrey, built a Europa between 1993 and 1998 and, fed up with looking at an empty workshop, started a second one in 2002. It's 85 percent completed now, but Bob has no idea of a launch date – sometimes he's too busy to work on it for six months, other times it gets almost all of his attention. As well as the two Europas he has a Gazelle helicopter and, of course, a Robin DR500.

An aviation aficionado who made the models, helicopter and fixed-wing, as a youngster, Bob started flying in 1979 on a Beagle Pup at Surrey and Kent FC at Biggin Hill, then moved to Redhill to do a tailwheel conversion on the Chipmunk. He settled into the usual flying pattern for those parts, which is Headcorn and back when you can afford it. The Europa looked like a feasible route to ownership, the performance was very good, the 'trailerability' was useful and Bob liked the fact that the factory was in the UK, so you could take them something you'd built and have them look it over. He met the Europa's designer Ivan Shaw and got on well with the team at Kirkbymoorside, and he had Peter Kember nearby to do his test flying for him. He ended up with an aircraft that probably cost about £45,000 to make and had direct operating costs of between £15 and £20 an hour.

He moved into helicopters in 2000, on the Hughes 300 at Redhill – he was a bit big for an R22 – then he converted onto the turbine Hughes 500. As a kid, his favourite model was always the Gazelle, and when he was offered a ride in one he staggered away with his eyeballs rotating in different directions. Two months later he bought one. "This was the most mind-blowingly stupid thing I ever did up to that point," he says. A couple of years later he trumped the decision by buying another one. Both were high time machines, but between

Above: Bob Fairall with his DR500 – the blue and red lines replaced yellow paint which didn't suit the machine

them they represented an almost zero-time helicopter, so he had them cobbled together at London Helicopter Centres. While he's frightened to do the sums, to give you an idea of the costs, a new engine costs about £100,000 and lasts 1750 hours, and it burns around 150 litres of JetA1 an hour.

For a while he forsook the Europa, doing 150 hours in the Gazelle in the first year, but affection for the homebuilt was rekindled by the vicissitudes of the business cycle, and at a certain point flying for £20 an hour once again looked like a very interesting idea. But Bob wanted to fly with more than one other person. He's always liked Jodels and Robins and tried to buy a Mousequetaire, then he saw this DR500 advertised in France. Being of the larger persuasion, he took to it immediately.

"I don't blat any of them," he says. "I like to do ten percent less than the book value, which is 83

percent for the Gazelle in the cruise – same goes for the Robin and the Europa. I bought the Robin for the comfort rather than the performance or the range – I don't make trips of 1,000 nm, although I keep promising myself that I'll go touring the Continent someday, when I can get the time."

Is there anything he doesn't like about the DR500? Bob is silent for a while. "Well, the canopy gets a bit sticky sometimes, but that's easily fixed," he says at length. "And there's a worry about getting spares, although it's reassuring that the French flight training industry would collapse without Robin, so there's always someone to take it on. Changing the reg from F to G was a pain – it was F-GSRV and I managed to get G-GSRV for ease of transfer. I also got rid of some yellow paint, which didn't flatter the aircraft, and put on blue and red. This is a 1999 aircraft and the hoses need replacing on ten years. The hose kit price was a couple of grand – one hose was about £800 – so some parts prices are silly. But if I rack my brains for something that niggles or annoys and can't be fixed, I'm afraid that nothing comes to mind." ■

