



The BRA CX3 project has been bought by one James Mather, who lives in a little place called Pentra Halkin. This is in a reasonably accessible part of Wales, about 400 yards off the A55. My first question to him was “You’re not married, are you?” because he had a chassis in the middle of his sitting-room.

James is a friendly bloke who sports a fashionably smooth cranium, and who subscribes enthusiastically to my theory

Is this a Sports BRA or a Wonder BRA? Iain Ayre warms his hands up and investigates



that smooth-topped aerodynamic humans are an advanced subspecies that has been genetically prepared for driving fast open cars, whereas the more aerodynamically unsuccessful hairy-topped genotype has evolved to drive Austin Montegos and the like.

A trike nutter from way back, James still has the JZR he's owned for years - and no, before you ask, it's not for sale now he's got a BRA. He was quite a long way through the theoretical side of brewing up his own design of three-wheeler, very much on the slow burner, when the CX3 project came up for sale.

The economics of whether to carry on with his own ideas or buy the CX3 were quite complex, and the selling price of the project was not negotiable, but in the end it worked out that to get his own project to where the CX3 already was would cost about the same as just buying the whole thing.

This course of action would also save a lot of work and allow him to achieve his dream of selling his own three-wheeler within months rather than years. He's not chucking in his day job, however, which is sensible - kit cars are a precarious business to rely on for a living, and I've always felt that there's a lot to be said for back garden kit car companies. I've been to quite a few expensive company showrooms that finished up with boards over the windows not too long after.

As another fairly close replica of pre-war Morgan three-wheeled racers, the BRA is inevitably close to the JZR in

concept and execution. Unlike the JZR, there is only one chassis length, which comes in between the JZR's long and short chassis options.

The other major difference is the width - the BRA is wide enough to let even a full size bum get down between the driveshaft tunnel and the side of the chassis, so the main difference between the two is that you sit in a BRA, while you tend to sit on a JZR.

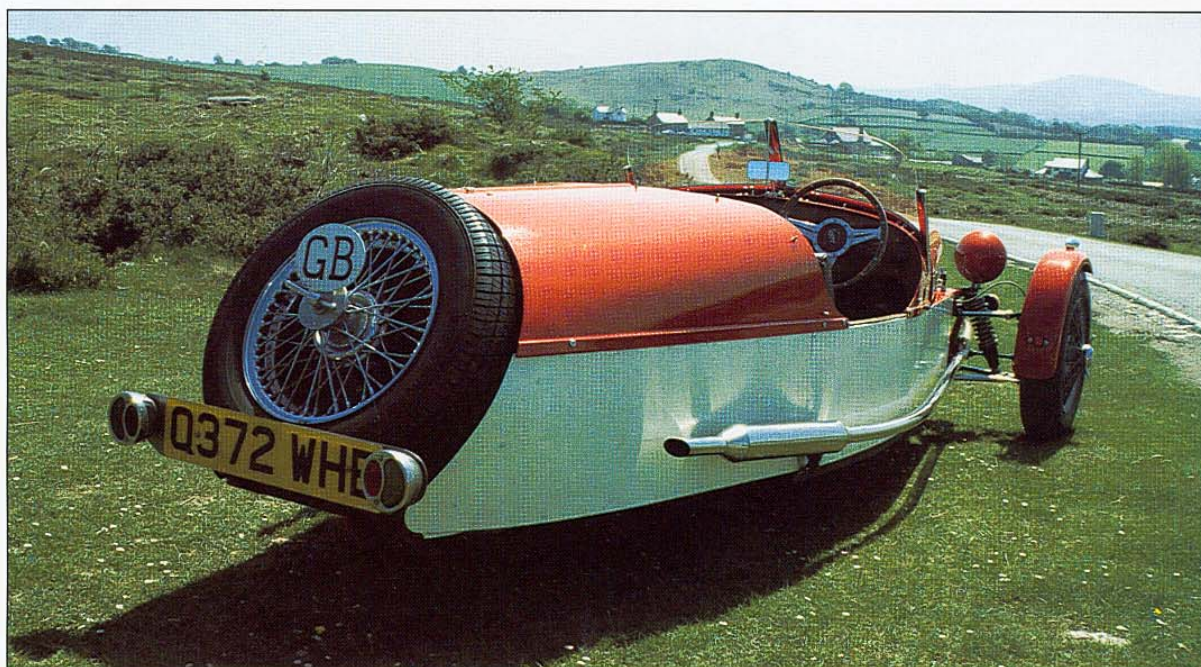
BRA's elderly demonstrator, photographed here, has been much abused and hacked about, but is still a fab car for all that. The one irritating thing about it was that one of the chassis uprights on the offside connecting the upper and lower rails was exactly where my hip bone wanted to go - so make sure your own hip bone clears that before ordering a chassis. It would presumably be no problem to have it altered - the chassis upright, not the hip bone - and the car would then be comfier than sleeping on Dolly Parton.

The basic principle of the CX3 is to get the good bits out of the Honda CX500 or CX650, and to attach them to a Morgan-inspired chassis. The Honda is a super donor, known as the despatch riders' favourite bike - tough, reliable, as cheap and easy to get your hands on as an Essex girl, and deeply unfashionable among cool bikers.

As a result, James has now picked up four of them for peanuts, the most expensive costing £160. The donor for the engine currently in the demonstrator cost £60, but the forks were then sold for £50,

so the (excellent) engine and box cost £10. It's not even worth repairing or overhauling the Honda engine - you just buy another one when you need one.

Cost of the kit is also easy on the wallet, with the body, chassis and necessary suspension bits priced at £2200 plus VAT. Donors are not going to break the bank, and the most expensive "extras"





you'll need are the wire front wheels - the back end retains the motorbike wheel and tyre. If you can't stretch to paying for the additional wire wheel for the spare on the barrelback body, fear not, as more rear body style options are on the way, probably interchangeable and quickly detachable. Mind you, the barrelback option makes the car look longer and prettier, and it's the one I'd order myself.

The transverse Vee engine sits in the chassis with the gearbox behind it, and the driveshaft is extended to go through the tunnel in the cockpit to the rear wheel, which is still in its Honda rear end. The whole back of the bike just bolts complete on to the back of the chassis. A pair of car wheels and hubs at the front, with wishbones and coilover shocks, and you've got a rolling chassis.

A pretty substantial affair, the chassis is heavier than it looks. It's a two-level square tube steel structure, with steel panelling as well, and is probably a lot stronger than it needs to be.

The outer GRP panels follow the Morgan look quite closely, but the front has a little grille shell covering some of the engine. This is actually a moulding based on half the grille shell from a Jaguar SS100, which is probably why it's so pretty.

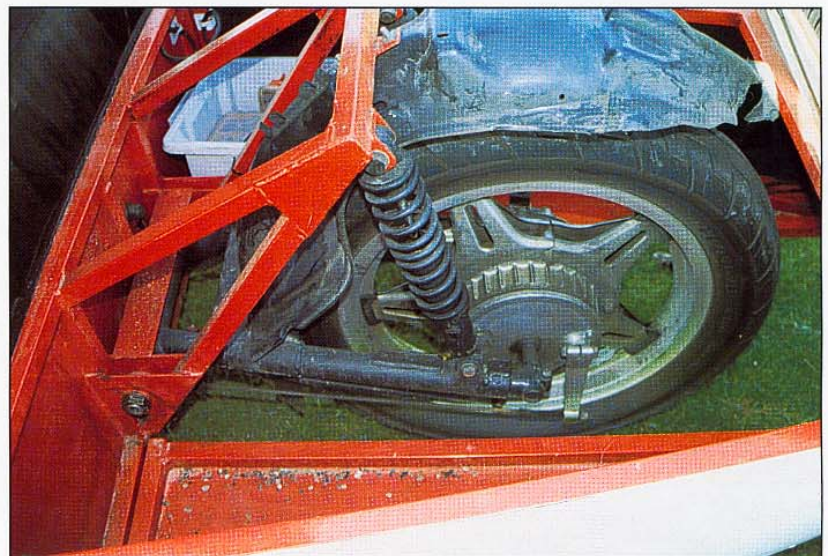
Under the very tidy centre-hinged aluminium bonnet, the engine bay space is more or less empty, containing fluid reservoirs and the radiator and fan, as the Honda engine is liquid cooled. Conveniently, this means you can use it as a heater and duct warm air into the cabin in the winter, making the cockpit quite cosy. Completely unheated cockpits can be miserable places during the winter.

The bike's controls are connected to a set of pedals which can be made

Quantum said they were offering cars with sequential gearboxes and engines that rev to 10,000. However, that's all bog standard with CX donors.

In practice, it translates as huge fun. When you take the CX3 out for a spin, the procedure is as follows: climb over the side, stand on the floor, then sit down and get your feet on the pedals. Your legs will be pointing straight ahead, as you're sitting more or less on the floor. Hook your right hand over the top of the steering wheel - the rack's quite high-ratio, so you only need to steer with one hand most of the time. Turn the key, push the start button, and the twin pipes start blattering immediately. There may have been some fibreglass silencer packing in James's exhaust pipes some time ago, but there ain't any left now.

Push the gear lever forward, clunk



movable in the cockpit - there is one CX3 owned by a couple whose respective heights are 5'3" and 6', who apparently have no problem sharing the car, except for a bit of a scrum about who gets into the driving seat first. He's bigger, but she's quicker.

Instruments and electrics are more or less nicked from the Honda and fitted straight into the kit, where they look quite at home. All the controls are delightfully featherlight, as there is no real weight of body or engine at the front, and the clutch and throttle are designed to be worked with fingers, not feet. You could drive this car with two fingers and two toes, if you wanted.

Do you want to? Sure you do, these lightweight trikes are enormous fun. The Honda engine is redlined at 10,000 revs and the gearbox is sequential. Just imagine the fuss there would be if

into first, give it some revs and let the clutch in. There's more torque than you would expect, which is probably why the despatch riders like the CX.

Out on to the little country road, click second, click third. Steer with right hand, change gear with left. Get the feel of the engine and box, empty roads, very narrow, up and down, nobody about. A few clear bits, wind it up. Lots of power around six, seven thousand, keep it spinning, brake, blip fourth, blip third, blip second, boot it out of the corner as soon as you can see clearly, up to a howling 9000, click third, 9000 again, this is a remarkably good engine for a tenner, and this is actually a wickedly fast little car.

It's limited in terms of pure grip by being on crossply tyres all round, but they add tenfold to the fun. You can drift the BRA through sharp corners with the tyres

shrieking, steering with both the drifting rear end and the delicately balanced front end, and it feels 50 mph faster than it's actually going.

The springs on this one are also surprisingly soft, and probably compromise the handling on the limit. However, the ride is really comfy, and if I were to build a BRA, I'd build it very much like this one. Radial tyres and brute springs would add to the speed at which you would go round corners, but I don't know that they would add to the amount you would enjoy those corners.

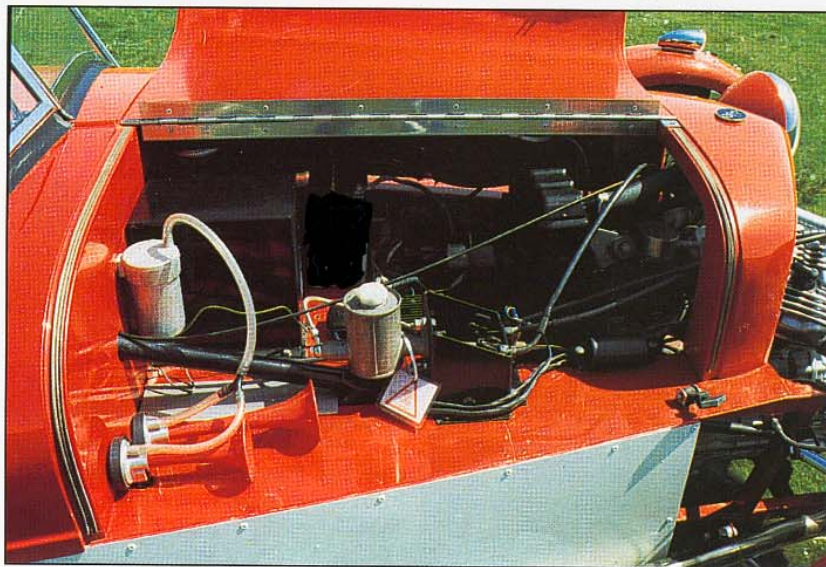
Snug and friendly though it is, the cockpit is far from cramped, and with just ordinary biking wet weather gear, you could drive one of these for quite a long distance without stress. This one could do with some silencing for long trips, but the amount of noise made by the exhausts is down to the choice of the builder. Once you've snuggled down into this sort of cockpit, most of the weather goes over you, and James's car is specially equipped for bad weather anyway - he's taken the carpets out and drilled holes in the floor for the rain to run out.

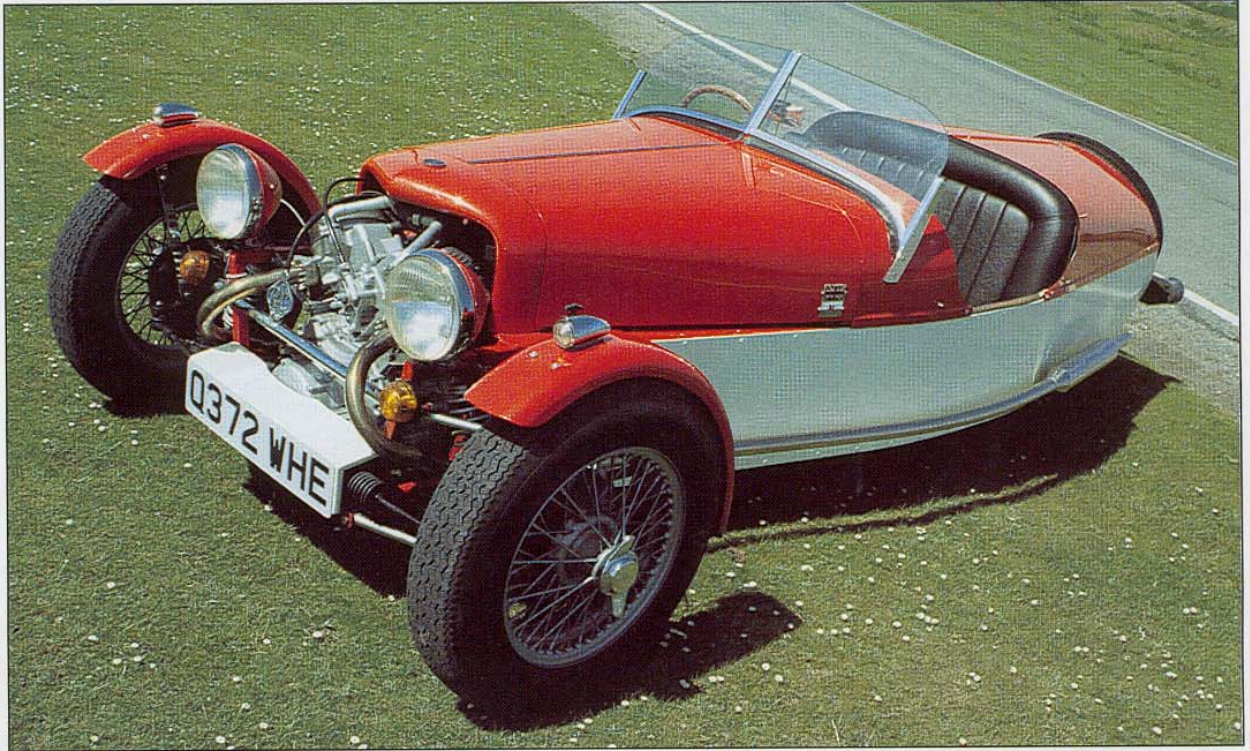
There's no reverse, of course, with the bike's gearbox, although it would be possible to rig a car starter to a ring gear on the wheel or somewhere if you really wanted to. However, it's really not much more of a problem than it is on a motorbike. If you want to go backwards, you get out and push, and the advantage over a bike is that the BRA can't fall over on you.

In any case, you very quickly learn to park the right way round, so that you can drive away forwards every time. On a flat surface, you can lean out and push backwards with your hand. If nothing else, this always gets a laugh.

Driven sensibly, the mileage per gallon from one of these trikes will easily exceed 50 mpg, and even if you drive like a complete loony, such that you would be getting 5 mpg out of a V8, you'd still be getting 30 mpg. Eco-friendly economy, greener than Jonathan Porritt's celeriac and rocket salad, and fully recycled (remotorcycled?) too - move over Greenpeace, and make a bit of room on the moral high ground for the kit car movement.

You wouldn't be surprised to hear that James Mather is interested in alternative fuels, would you? However, you may be surprised to hear that the Aerodyne Corporation in America have ordered two BRAs to fit with compressed air engines. The idea, it seems, is to fit a tank of very compressed air, at 3500 psi, instead of fuel. The Honda engine is retained, but is fitted with rotary valve





heads. Because it's a V-twin, it can't lock up at top dead centre. The range of such a vehicle is currently 100 miles, so as a city runabout it could be very practical.

You can't get free energy, of course, and all this nonsense about zero pollution is bollocks - the problem is simply shifted somewhere else, to a power station burning oil, coal, uranium, whatever. However, in somewhere like LA, which is choking on its own filth, if you can shift some of the pollution to Nevada, it allows you to breathe in Beverley Hills.

James is quite keen on going back to the future with steam power, too. Current technologies applied to steam can make the whole thing look a lot more practical. You don't need to stoke a coal fire if you use a flash boiler, and if you

burn kerosene at a fixed air-fuel mixture, as you do in a flash arrangement such as a central heating boiler, it can get you very efficient combustion.

You can also condense and recondense the same water, getting 100 miles to the pint nowadays, rather than the other way round. It's always a bit of an eye-opener to realise just how powerful and efficient the early steam cars were a hundred years ago, compared to their wheezing, crude petrol equivalents. Is it possible that Newark '99 will see a steam trike from our Jimbo? Quite honestly, I wouldn't put it past him.

