

Exclusive!

BRA LEIGHTON

A Bit Of Both

Popular budget recipes for three-wheelers have embraced both Citroen's 2CV and the Mini. This car has bits of both. Is it a Mitroen or perhaps a Cini? The answer is no. This is the BRA Leighton and, as Ian Hyne discovered, it's got a lot to shout about.

FED UP OF FOUR WHEELS? TIRED of two? Then perhaps it's time to have another look at the kit industry's burgeoning ranks of three-wheelers and especially the new BRA Leighton.

Visitors to last year's Exeter

show will have witnessed the debut of a new three-wheeler from GCS Cars, better known for its Hawke Morgan lookalike. Unusually, the company wasn't particularly looking for kit sales. It was more interested in selling the complete project. The

Hawke was also for sale as a going concern, this seemingly desperate action prompted by health problems in the GCS hierarchy making it virtually impossible to continue manufacture.

Fortunately, GCS had acquired a good reputation for a workmanlike, quality product and the Hawke was snapped up by Tiger Cars while BRA stepped in to take the Leighton beneath its trike-orientated wing.

BRA started out with the bought-in BRA CX3 project. The company soon added its own hybrid product in the form of the CV3, marrying the Morganesque form of the CX3 with the popular mechanics of the Citroen 2CV. It

further added to the model range with the BRA-designed, Metro-based MR3 but less than riveting looks have conspired against it despite its excellent road-ripping character and ability. Development is ongoing for the MR3 but such is BRA's enthusiasm for anything remotely resembling the automotive equivalent of a milking stool that the company's James Mather and David Wiles couldn't resist the Leighton. It is now the BRA Leighton and itching to attract customers, a task in which, having driven it, *Which Kit?* is certain it won't experience many problems.

So what's it got? In the looks department, nothing new. It's the familiar, Morgan-inspired form that





has dominated kit-form three-wheeler styling since the Mini-based cars of the late sixties and early seventies. Nevertheless, it's sweetly done such that the Leighton retains that olde world charm that creates much of the attraction. Though this car is the prototype, the quality is good too. The Citroen boxer looks suitably vintage hanging out the front and though the exhaust manifolds mar the unit's appearance, BRA is noted for its presentational quality and an industrial coating will restore and maintain the cosmetic harmony. But it's under the skin where this car scores.

Whilst pirating the Citroen 2CV's engine, transmission, steering, front brakes and suspension, the designers steered clear of the Citroen's chassis. Though inspired in terms of its surprisingly sophisticated and advanced mechanical design, for the purposes of a sports three-wheeler, its heavy suspension componentry and horizontally-mounted springs imposed a weight penalty a power-challenged trike can well do without. Thus the Leighton dips into the Mini-based recipe book for its simple, multi-tube steel frame chassis carrying a Metro trailing arm on a coil spring

damper unit for the rear suspension.

Up front it's back to the Citroen build manual with a little twist seen on both the Lomax Lambda and Richard Oakes' beautifully designed Blackjack Avion. The chassis accepts the Citroen's front crossmember complete with its internally fitted rack and pinion steering and

leading suspension arms. These arms are torqued up on bevelled needle-roller bearings and create a thoroughly positive feel. It's the same at the back where the choice of the A-series Metro arm over the

similar Mini component brings the added refinement and positive feel of a needle-roller bearing.

However, having discarded the 2CV's horizontal springs and patter dampers, the Leighton uses a pair

Below: Leighton has typically spartan interior. Bench seats lack support and driving position is currently a little short but both should change with production kits.



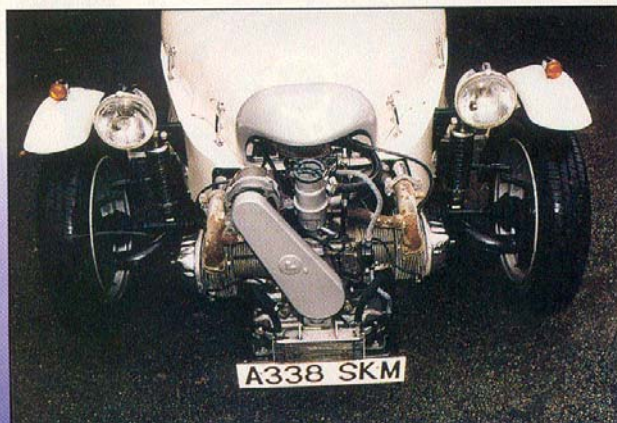


Above: Rear suspension based around Metro components. Moving position of fuel tank should free up valuable interior seat adjustment as well as creating useful luggage compartment.

of adjustable coil-spring damper units located between the chassis and the leading arms, the lower locations being critical to the car's handling.

In the middle sits the air-cooled Citroen boxer that spins its way to developing a pipsqueak 30bhp. However, losing the Citroen chassis and much of the encumbering componentry that comes with it has shed a significant amount of weight. The Leighton tips the scales at just 350kgs allowing the standard 30bhp to flex its muscles to the tune of 87bhp per tonne. It's not that much but it's certainly enough. On top of that, speed is only part of the enjoyment this car brings.

Below: 2CV engine fully exposed and, on the prototype, a little untidy. Still, easy enough to rectify. Note the coil-over dampers which greatly improve handling.



Hop aboard and there are a couple of immediate ergonomic problems. Simplistic seating on a flat floor makes for a less than satisfactory driving position. Your body adopts an awkward attitude, your feet feel clumsy on the pedals, the wheel's too close and, balanced on your bum, there's nothing to hold you in place. In addition, there's insufficient leg-room for lofty pilots. But all is not lost.

Remove the back cover and you discover a very great deal of space between the extremes of the car's 92" wheelbase. At the very back is the Metro 12" wheel on its trailing arm. There's then a large, largely unused area between the trailing arm and the back of the seat squab that merely plays host to the plastic fuel tank. It may be cheap but it's hardly space efficient and the company is already looking at a dedicated fuel tank and GRP mouldings to enclose the rear wheel and create more than generous luggage space. At the same time there is room to move the seat back and create the necessary additional leg-room. The seat squab sits at the point at which the body sides cut in to intersect at the pointed tail thus moving the seat back would encroach on cockpit width but if that becomes a problem the side contours of the car can be easily altered to suit. Raising the seat to put your feet below the level of your rump is not a problem in an open top car. The Leighton carries a tall screen and the seat only

needs to come up an inch or maybe two.

The dashboard is very simple but offers endless scope for personal preference. Currently it just carries the 2CV oblong instrument giving speed and fuel. If you prefer, BRA can furnish a matched set of analogue clocks for control freaks.

But ergonomic shortcomings pale into insignificance when you get this thing on the road. In short, it's an absolute hoot. Fire it up and the staccato bark comes courtesy of a pair of old Triumph motorcycle silencers...except they don't. What they do is create the most riveting rasp that urges you to use the air-cooled boxer's ability to rev. Like Buzz Lightyear, it'll go to 7,000 and beyond with infectious enthusiasm and unswerving intent.

You have to master the 2CV's dog-leg gear pattern but the change via the Leighton's dash-sprouting lever is the best I have

encountered. It's smooth, unerringly positive and reasonably rapid. It just goes to show the dividends of a thorough mechanical overhaul.

The 2CV pedals too are smooth, slack-free, positive and well weighted such that getting moving is a fluid exercise. On the move, the ride is a little short of the 2CV's unique, waftmatic character but the Citroen's DNA dominates the design such that the ride is smooth, comfortable and above all, communicative.

Put your foot down and the boxer's revs come fast and free with that addictive sound track bouncing of the walls and hedges. Enjoyment of the aural symphony encourages you to keep your foot planted, blissfully unaware of how many revs you're doing. As you pile on the coals up the wide spread ratios, you suddenly realise the Leighton has speed, real speed. It's hardly Westfield territory but an

SPECIFICATION BRA LEIGHTON

Chassis: Multi-tube steel frame chassis.

Body: Unstressed GRP. Removable bonnet and boot.

Front Suspension: Citroen 2CV crossmember with twin leading arms on needle-roller bearings. Avo adjustable coil-spring damper units.

Rear Suspension: A-series Metro trailing arm with Avo adjustable coil-spring damper unit.

Steering: Citroen 2CV rack and pinion. 3.25 turns.

Pedals: Citroen 2CV.

Brakes: Citroen 2CV inboard front discs, Metro rear drum. Non-servo.

Engine: Citroen 2CV 602cc, twin-cylinder, horizontally-opposed, air-cooled. 30bhp @ 5,750rpm, 29ft lbs @ 3,500rpm.

Transmission: Citroen 2CV, four-speed manual gearbox driving front wheels.

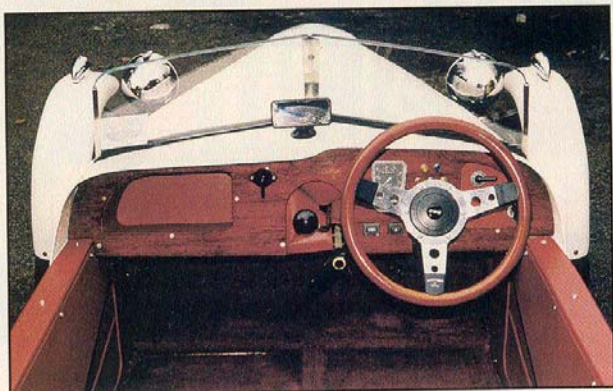
Wheels and tyres: Front - Citroen 2CV rims fitted with 125x15" radials. Rear - Metro rim fitted with 145x12" radial.

Weight: 350kgs (770lbs)

Kit prices: TBA

Full details are available from:

BRA Motor Works, Unit 14 Manor Industrial Estate, Flint, Flintshire, North Wales CH6 5UY. Tel: 01352 733131.



Above: Gearshift currently one of the best we've experienced on a 2CV based kit. Dash is a blank canvass for anyone to do as they wish, from retaining the donor's single instrument to a full set of aftermarket gauges.

easy 60 plus in third followed by an insatiable appetite for 70 and more in top makes it the swiftest trike this side of a double

wishbone-equipped Vee-twin.

The brakes are excellent, combining the 2CV's inboard discs with the Metro drum out back.

350kgs isn't much to stop and moderate pedal-pressure will have the Leighton scrubbing off speed with real intent. In harmony with the quick and positive gear-change you can set it up perfectly for the bends.

Tipped into the turns, the Avo's banish the 2CV's infamous roll. With the body well under control you can hustle it through the twists in fine style and blast it out in a welter of revs and machine-gun sound. The steering really firms up in the turns but my need for greater leg-room would be accompanied by a larger diameter wheel. As it was, balanced precariously on the unsupportive seat cushion, over-enthusiasm had me listing to port and starboard whilst clinging to the wheel. Even so, the Leighton is a natural twister that is easily provoked to oversteer and just as easily recovered.

On arrival back at BRA base-camp, I had thoroughly enjoyed an

outing in a car with great enthusiast potential. Granted there are a few little things to put right and BRA has a few alterations in mind too. But on the performance front, it's a bit of a wolf in sheep's clothing. It may be more than catchable on the straight but you'll have to do a bit of work to chase a well-driven Leighton round the lanes.

That alone will create customer attraction but there's more good news in the price. Currently, BRA hasn't finalised its prices but it's aiming at a body/chassis kit at £1000 inclusive. There will also be a comprehensive kit at around £1,700 inclusive to additionally include all the special bracketry, coil-spring dampers, screen and probably trim. On that basis, a total build cost well under £3,000 is not unrealistic and it's a great little car for the money as well as an inexhaustible source of sheer enjoyment. We love it.

