

Freeway Fugitive



Photography by Colin Burnham

Top: Guaranteed to get the adrenalin going, the Fugitive II is magnificent.

Left: Not even a passing juggernaut can make the Fugitive II feel insignificant!

Since its introduction, UVA's free-as-a-bird Fugitive has become a real market leader. With demand so high, and still rising, Nick Evans examines three current and forthcoming derivatives on the original concept.

With so much interest shown in replicas, it would appear few component car manufacturers are currently prepared to risk exploring new territory in car design. However, there is one company eager to break new ground both in car innovation and technology. That company UVA Ltd. of Newbury, Berkshire, is renowned for its high quality products, admired for its technological advances and generally respected by other contingencies in the industry.

By introducing its range of Fugitive off/on road rail racers UVA has clearly demonstrated that, with a little imagination, thought and ability, a new concept can be successful. When the Fugitive was introduced back in December 1983, UVA was treading into the unknown: nothing like it had been seen in Britain, though California had experienced the outrageous breed for some time. Were the British public ready to accept such an absurd method of transport which closely resembled a series of scaffolding tubes on wheels?

Seventeen months later, the company continues to sell Fugitives at an almost alarming rate. To date, around 150 examples have left Newbury in one guise or another, and to keep pace with demand UVA has had to further explore the field of technology and design merely in order to maintain control of a boom situation which has naturally attracted competition.

But what makes a Fugitive such an attractive component car? Obviously the marketing has had a lot to do with it, but quite possibly its versatility and fun car appeal have been its strongest attributes. In an ever changing automotive climate the Fugitive will always continue to survive as it's able to cater for the

needs of most people. The car provides an ideal way to express one's identity both in terms of character and the way in which any individual Fugitive can be assembled.

Prior to purchasing a Fugitive you'll have to decide just what you're going to want from the car. Is it to be used solely for off-road use, as a road car, or perhaps a combination of both? Will you want one, two or four seats, a rear-engined machine or a mid-engined street racer? Select one and your build-up can begin. For the purposes of this feature, we're going to concentrate on the Fugitive II, III and IV; the Fugitive 1 being the single seat off-roader.

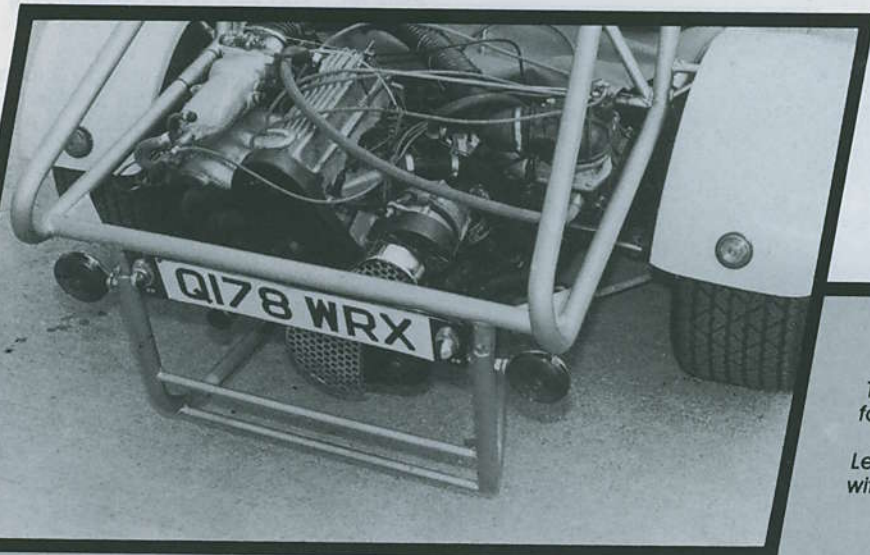
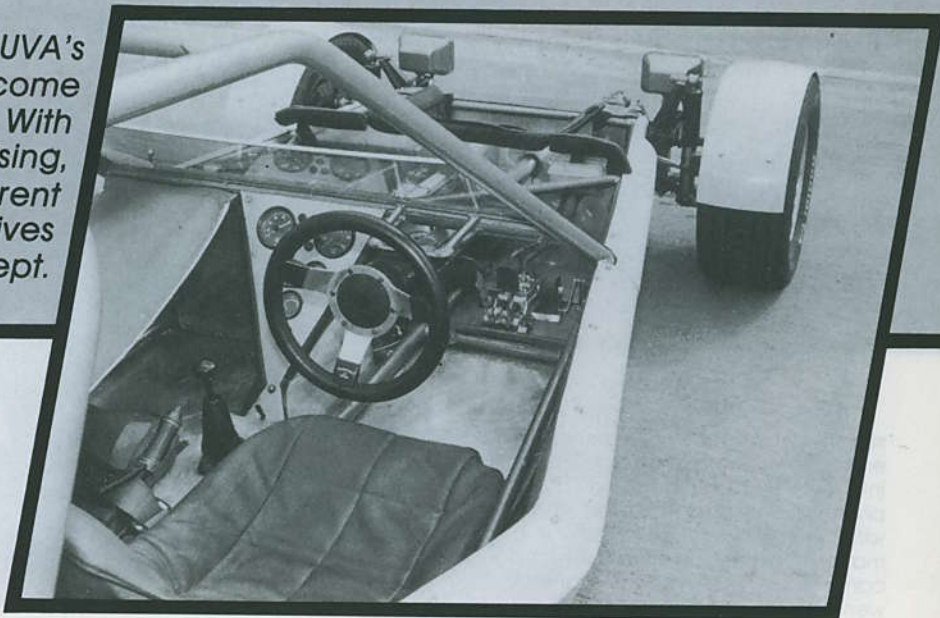
OUTRAGEOUS ROADSTER

UVA's first car was the Fugitive II which first saw the light of day in off-road form in the early part of 1984. Wishing to introduce off-road activities in this country, UVA designed and built that early trail-blazer using a 14swg tubular steel spaceframe chassis. Ultra-reliable VW Beetle running gear was added which comprised a complete front torsion bar with the Sway-A-Way ride height adjusters, cross-drilled discs and a stiffened anti-roll bar. On the rear,

1302/3 IRS Beetle running gear complete with transverse torsion bar housing was grafted onto the chassis and sported VW transmission and a modified 2.2 litre VW motor capable of pumping out around 140bhp. A nine-piece body panel kit, beautifully moulded and curvaceous to emphasise the II's styling, was attached with Dzus fasteners; a tinted fly-screen added; a set of VDO instruments located in an aluminium console; standard Beetle pedals, handbrake, gearshift and lengthened steering column added, and the car wired. Finally it was graced with a set of Weller wheels and BF Goodrich tyres.

As you can imagine, the car was pretty inspirational, to say the least! This demonstrator caused so much interest that not only did people buy off-roaders but demand grew for road versions. UVA had to adapt to suit. And we're all the luckier for it.

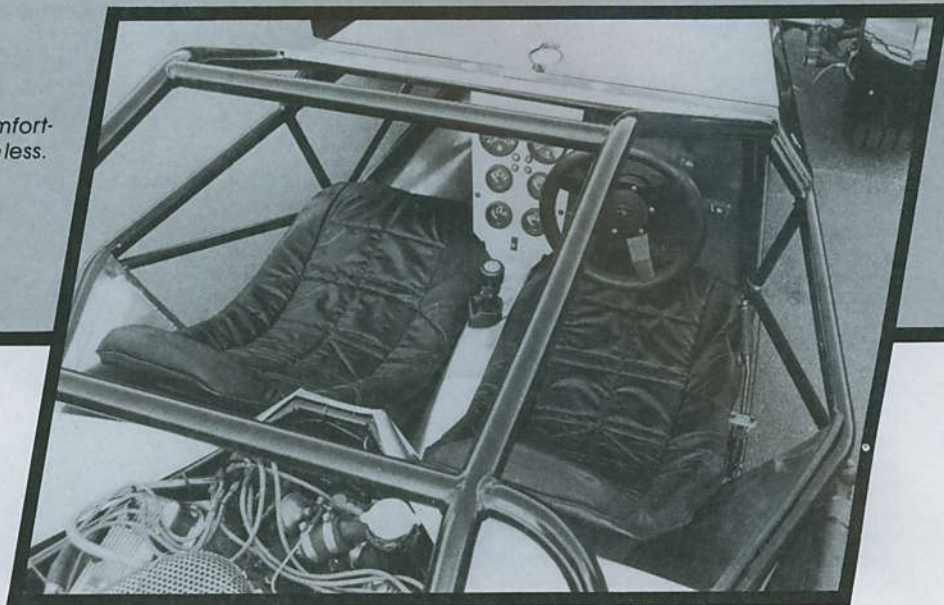
Visitors to the VW Action day held at UVA's premises last June saw for the first time a road-going Fugitive II, a car created out of the off-roader. Technically the car remained the same with its Beetle drivetrain but the suspension was lowered using the adjusters at the front and adjustable spring plates on the rear. A UVA hydraulic brake and clutch box plus a disc brake conversion kit replaced the standard Beetle items to give more accurate and responsive braking facilities. To legalise the car, four cycle wings were added (again beautifully moulded), Cibie main lights and Bugpack indicators and tail lights bolted on, a tonneau fitted and, perhaps most impressive of all, a set of Centreline alloy wheels replaced the steel Weller units to give the car a meaner and more purposeful image.



Top: Triangular fascia and VDO dials form the centrepiece of the cockpit.

Left: Golf GTI power units sits snugly within the incredibly strong framework.

Fugitive III interior is snug and comfortable, but bare and functional nonetheless.



Changes to the flying Fugitive II didn't stop there! What about water-cooled engines? I want to fit a Ford OHC lump into my car? Can it be done? UVA's phones never stopped. So, in keeping with the company's philosophy to prove matters before marketing them, out came the air-cooled engine and in went a water-cooled Golf GTI unit giving 115bhp. By using one of UVA's own adaptor kits, the Golf motor fitted in like a treat. For plumbing, a Golf radiator was positioned at 45° well up in the nose with an electric fan and was connected by a combination of steel tubing and UVA flexible radiator hosing. A custom-built aluminium fuel tank was fabricated and replaced the plastic Bugpack item which had to be removed to accommodate the radiator. This, then, is how the UVA demo car currently stands.

Says Alan Arnold, bossman of UVA: "We've always wanted to show our customers that variations on the theme can be done, and we won't advertise something that we're not entirely happy with. By installing a water-cooled motor we've proved even further that the basic Fugitive concept can be advanced upon, though we wouldn't recommend V6 or V8 engines in a II. Put any in-line Ford unit, a Fiat/Lancia twin cam or a Mazda Rotary in a Fugitive and you'll have the same performance and economy a tweaked VW engine can give. V6 and V8 engines should go in the Fugitive III, not the II."

Climbing over the side panel and into the II's semi-bucket seat is rather like clambering into a canoe. Though there's no chance of capsizing in a Fugitive, you are quickly aware you are well protected and comfortable in the seats. The driving position is similar to

the old MGs: the wheel is right there in your lap, which lends the impression your feet are right down in front of the wheels. Some, like myself, will favour this though others may find it a little awkward and difficult to get used to. Some may prefer the modern straight-armed approach — cut and reweld the steering column and the position can quickly be altered. Adaptation is one of the Fugitive's strongest assets.

The Fugitive is definitely not a car for the weak-minded. Fire up the GTI motor and your ear drums won't exactly have a holiday as the roar from the UVA exhaust system erupts from behind you. Get the car in motion and the British road system falls prey to you as a potential race circuit. Apart from the inevitable glances of utter bewilderment and gulps of astonishment and absurdity, you'll need to hover around town for a bit to fully acclimatise yourself with the car's capabilities.

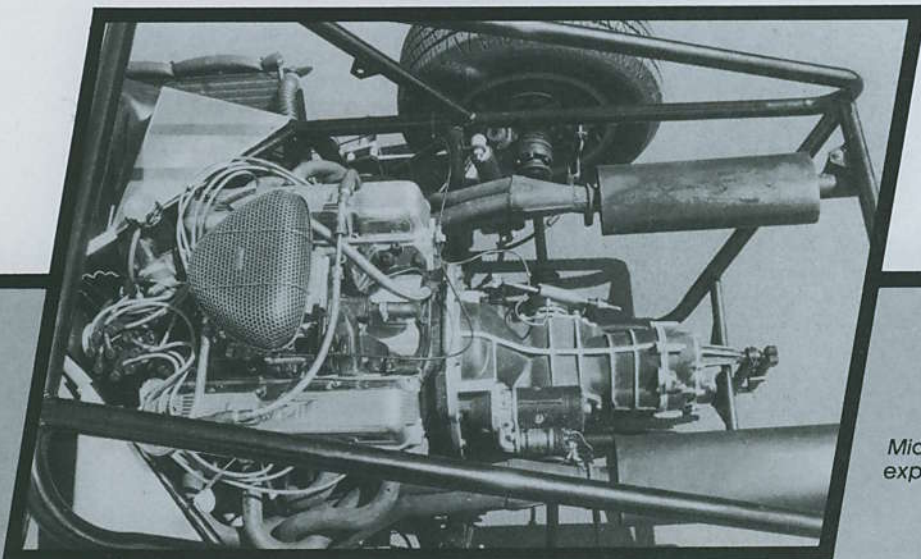
You're so much lower in a Fugitive that even Minis seem like double-decker buses! Therefore great care needs to be taken and the constant turning round to check the rear three-quarters may seem a little tiresome at first but you'll soon get used to it. Keep looking ahead through the flyscreen and down the long wedge-shaped bonnet and you'll soon start to smile with excitement

and pleasure. Yes, this car is bloody good fun. Let's head for the hills!

Once familiar with the controls and happy that the car is really only an extension of your limbs, you enter a dual-carriageway, stick the car in fourth and, hey presto, it feels like someone's just kicked you into the next century. The farmac starts to rush towards you like a clockwork rubber duck in the bath; my word, this is fun. Just as well you're wearing goggles though, as your eyes would be flowing torrents of water by now, to say nothing of that hairstyle!

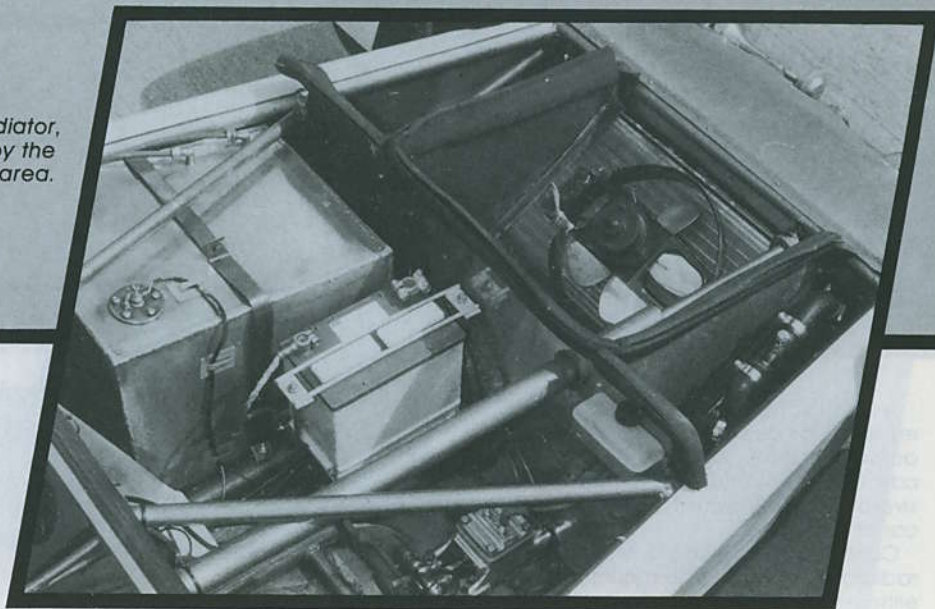
Seriously, this car will give what you put into it — a heavy right foot gives ultimate performance but, watch it, anything over 3000rpm in fourth is illegal — speed seems somewhat exaggerated in a car so exposed to the elements as this. A light right foot and you'll experience excellent fuel economy, such are the power-to-weight ratio and excellent aerodynamics of the car.

The Fugitive II can be bought in three different ways. The first is a basic kit which comprises the chassis rails only and costs £268 plus VAT. If you're not confident of doing the welding yourself, then spend £390 + VAT for a fully welded spaceframe, though for £470 + VAT you can acquire a complete welded framework with all necessary brackets. The all-important nine-piece body panel package will set you back £325.20 + VAT and on top of that you'll need to purchase the donor Beetle running gear, transmission, engine, pedals, handbrake, gear linkage, brake pipes, wiring loom, etc. Install a water-cooled engine and you'll need a UVA adaptor assembly (£185 + VAT for in-line Fords), a radiator, water piping, etc. Approximately 150 hours and a total cost of between £1500 and £2000



Mid-mounted Rover V8 engine provides explosive acceleration and performance.

Fuel tank, battery and radiator, complete with electric fan, occupy the nose area.



should see a Fugitive II completed on the road.

By the way, UVA's demonstrator is currently up for grabs, so those wishing to save time, and who might desperately want a Fugitive for the summer, should contact UVA for further details.

MID-ENGINE APPEAL

So what about those wishing to install big engines like V6 Fords or V8 Rovers? Apparently, demand is now so high for ultra-quick Fugitives that UVA have had to think once again. With Alan Arnold's experience in racing car technology, a mid-engined Fugitive seemed to be the obvious way to go; consequently UVA has spent a great deal of time, money and effort tooling up for the birth of its latest projectile, the Fugitive III.

At the time of writing, the demonstrator isn't quite finished as a number of cosmetic tasks have yet to be done (namely the completion of the bodywork), but as can be seen from the photos, a large number of changes have had to be made to the Fugitive's concept. Whether the company has gone over the top in the construction of the Fugitive III demo remains to be seen but we can guarantee once again that it has done a first class job with the build-up.

The car has been totally thought out and completely redesigned from the ground up. Five months ago UVA started by taking a basic II spaceframe, cutting it up, dropping in a Rover V8 engine and transmission, and redesigning the supporting framework. Wanting a low centre of gravity to achieve ultimate roadholding characteristics, UVA deliberately positioned the engine block as low in the frame as possible, so

low, in fact, that the standard VW transverse torsion bar housing has had to be removed. Instead, UVA has made up a special two-piece housing incorporating Variant torsion bars which are shorter than IRS Beetle items. This means that because they're now further apart in the centre, they won't extend outwards so far, though Beetle items could still be used if necessary.

The reason for all this? Well, the engine, complete with sump can be placed in situ without the need to modify the sump pan, thus allowing the block to sit low at the same time as saving upon expenditure. Clever, isn't it? UVA's technological theories continue...

Instead of using standard Rover mountings, the company has fabricated its own tripod assemblies which mount directly to the block on either side. The rubber mountings then locate at the outer ends of the tripods onto the external chassis rails where the torsion bar housings pick up. This means the engine won't be continually trying to twist itself out of its seating; thus the load and stress of the engine will be further spread throughout the chassis. Rear pickup on the transmission is via a standard VW rubber mounting.

By using Variant torsion bars, standard A-arms can be incorporated, though

these have been swapped over (necessitating the need to cut and reweld the damper lower brackets and the bump stops) which counteracts the degree of negative camber when the suspension is lowered.

Adjustable spring plates take care of the ride height and here UVA has designed and built its own torsion bar retainer plates which, whilst catering for ride height adjustment by removal of one of the four locating bolts, also contain urethane bushes which stop movement of the torsion bars and spring plates.

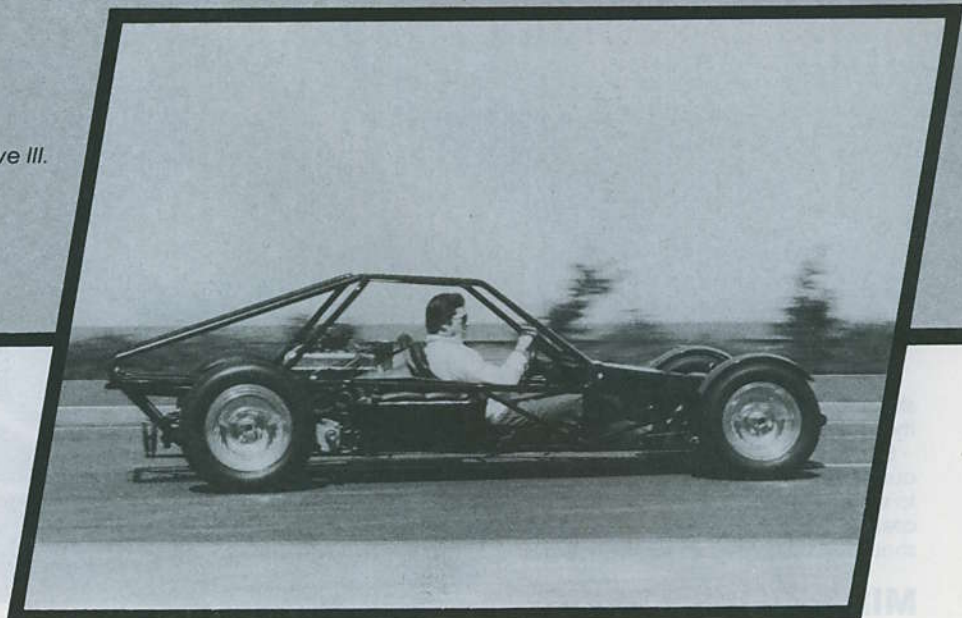
On the front, extensive redevelopment work on the stub axle assemblies and the inclusion of two Sway-A-Way adjusters welded onto the front beam have resulted in a trouble-free ride height mechanism whilst the extrusion on the top beam either side of the damper towers has been removed to allow the top arms to penetrate further into the beam. This then gives 1.5° negative camber to the front wheels, again resulting in better roadholding. Twelve springs have been removed in total and the four remaining leaves on the top beam have been reversed so that the blank ends can be drilled to allow the two pinch bolts to locate. Urethane grease seals prevent lateral movement of the springs.

A rack and pinion steering mechanism connected to a Triumph Dolomite column replaces the Beetle box, and the two modified control arms connect onto the rack à la Alfalud — again UVA's technology at its best. Remember, the car can be built without all these mods though for the ultimate street machine you'll have to incorporate some, if not all, of them. A nine-gallon custom-made aluminium fuel tank sits between the footwells.



Fugitive III looks mean, moody and magnificent, and it's not even finished yet!

Alan Arnold of UVA demonstrates the full potential of the V8 powered Fugitive III.



A UVA hydraulic pedal assembly replaces the Beetle organ items and activates the four cross-drilled discs and calipers. This makes for a highly responsive brake system which is essential in a car of this nature.

Cooling takes place via two Golf GTI radiators which are side mounted on either side of the engine. Louvres moulded into the sides of the body panels à la Ferrari Testa Rossa suck air into the radiators through an area of low pressure.

To avoid a cluttered cockpit, all the VDO instruments and switches have been tidily located in an aluminium centre console and a VW handbrake has been sited to the right of the driver's seat which leaves the somewhat small seating area free of any unwanted obstacles.

In compliance with the very nature of the car, the engine and transmission are by no means standard. Taken from a 3500 V8 Rover saloon, the engine was stripped and rebuilt with a fully balanced and lightened UVA flywheel, adjustable pushrods, an APS H224 camshaft, an APS inlet manifold and a 440cfm (Holley) carburettor. The full 240bhp is then powered into the VW Variant transmission which, capable of taking 150bhp in standard form, has had alterations to cope with the increase in power.

Third and fourth gears have been locked onto the auto synchro hubs, heavy duty keyways have been fitted to third and fourth, and the torsion spacer located between three and four has

been replaced with a solid spacer. Four spyder gears, as opposed to the stock two, have been added to the differential which has been turned through 180° to allow four forward gears and one reverse. Heavy duty side covers have also been added to prevent the differential from climbing out of the housing.

A UVA mid-engine shift kit bolts onto the output shaft of the gearbox and connects via a rose joint to a shortened Beetle gearchange. This allows for accurate gearchanges — a strong necessity in a car of this calibre.

The Fugitive III is very much a muscle car, or should I say cart? Its low, purposeful lines mean performance and, with 15" Centreline wheels on 235/50 Goodrich Comp T/A rubber on the rear and 14" wheels with 215/50 tyres on the front, the car's gearing is such that top speed should be around the 140mph mark!

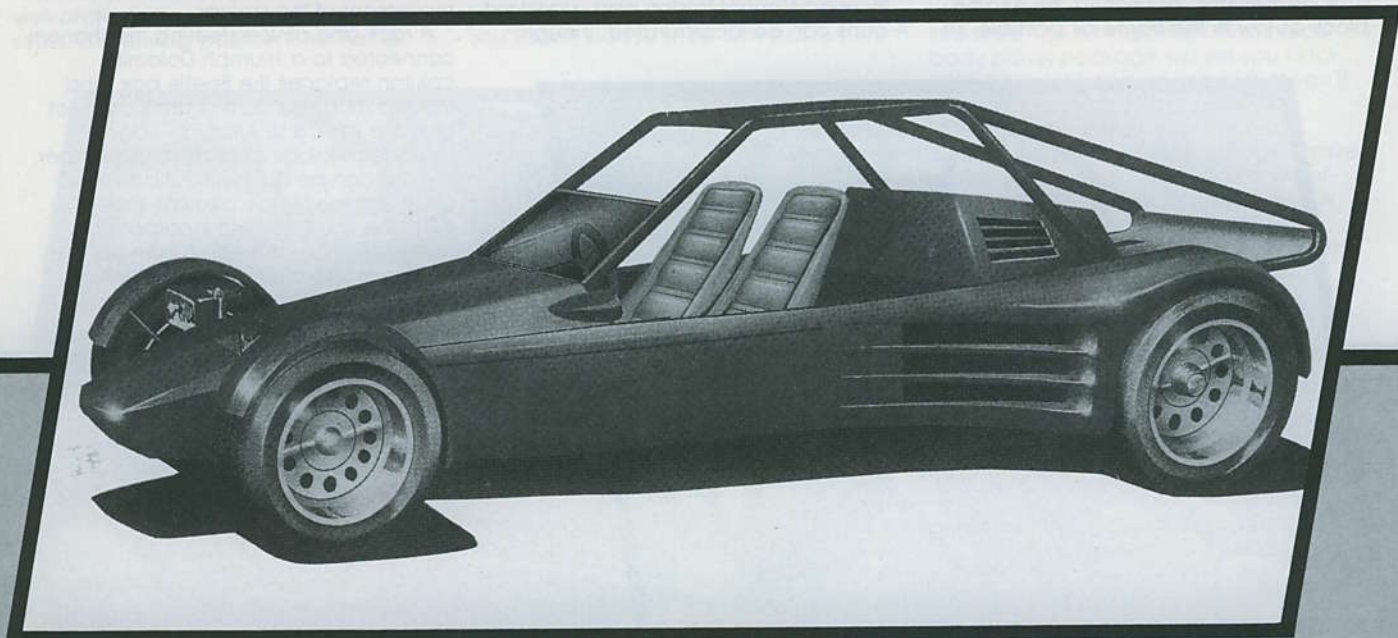
To get the car to appear so low, UVA has been subtle in its approach. Instead of the structure being low across the entire underside, the side panels are lower than the aluminium flooring which

is two inches higher. As you're less likely to ground on the sides, appearance and practicality are neatly achieved using this method.

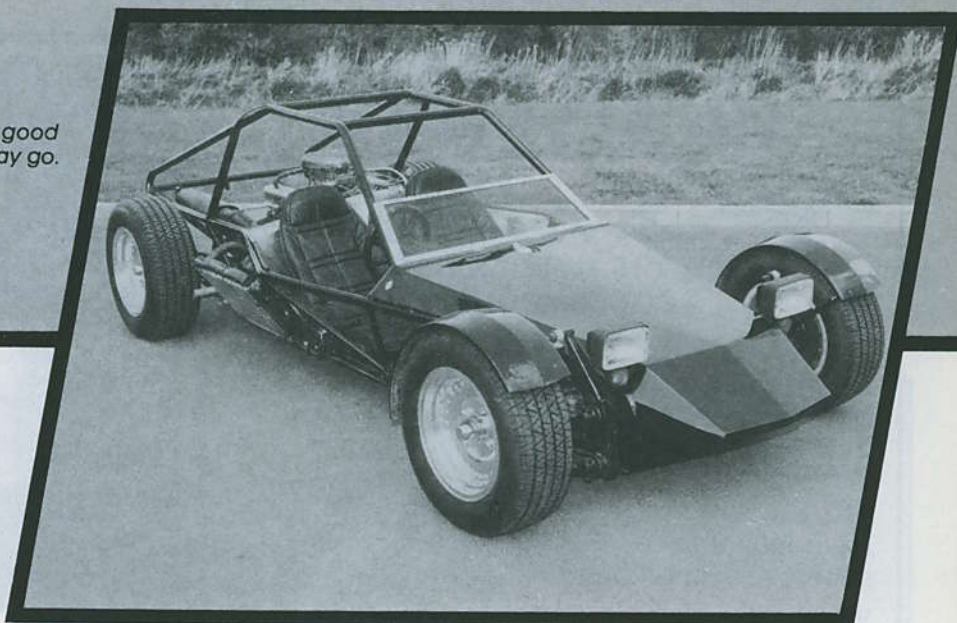
As the car is yet unfinished, only an artist's impression can visualise what the Fugitive III will look like. But judging by the plugs for the side panels, the car will be everything the artist predicted, if not better.

So what will it cost? The basic package (that's just the unwelded chassis rails) will set you back £635 + VAT, while the price increases to £835 + VAT for the welded package. For a fully welded and bracketed spaceframe including engine and transmission mounts, brake pipe tags, etc, the cost is £925 + VAT with a further £475 + VAT for the five-piece body panel pack.

All other parts necessary to complete the car (bar engine and gearbox) are available from UVA and can be purchased as separate packages. Thus you can buy the basics for the car, save up for a suspension pack, then an interior set including seats and instruments, a lighting and wiring pack and finally an accessory pack which includes the



Dramatic shape looks especially good in black. Heads turn wherever it may go.



adaptor plate assembly, mid-engine shift kit etc. Prices on these packages have yet to be decided, though the company estimates a minimum of £2300 to complete, plus a total of 200 hours work.

The Fugitive III is not a component car for the first timer, nor for the faint-hearted. It's very much a driver's car like any other Fugitive though, with its anticipated road-holding and performance capabilities, it will only come into its element when driven hard and fast. With virtually no practicality, the III will appeal to those who already own a 'family car' and to someone looking for a Sunday afternoon high performance sportscar. Several enquiries have already been made regarding the III for use in the Kit Car Racing Series, though UVA is reluctant to accept customers' money until such time as the demonstrator is finished and proven to work well. Let's hope that time will soon be with us.

FAMILY FOURSOME

The Fugitive IV is basically a four-seater version of the II. Through its design it is able to offer true four-seat accommodation for four adults with arm and foot space to match. It'll never be as luxurious as some production cars but will be as spacious and comfortable as a car of this nature can be.

The IV's appeal will obviously lie with the family man but, as with any Fugitive derivative it can only be classed as a dry weather Sunday afternoon joy rider as luggage space is non-existent. Mind you, it could also be termed something of a weekender for two if the rear seats are used to carry small suitcases and the all-important golf clubs!

The car appears to be a stretched Fugitive II, though the design is far from being just that. The chassis comprises a layout similar to the III, though the engine compartment is reworked to include the rear seats. Being rear engined, the IV uses standard IRS Beetle or Variant running gear, complete with

engine and gearbox, and retains the VW torsion bar housing, unlike the III. Front suspension is unmodified torsion bar but suitable modifications can be included (as described earlier) if so desired.

Bodywise, the Fugitive IV package contains a seven-piece body assembly complete with four cycle wings. As with any Fugitive, except perhaps the III, the IV is comparatively simple to build providing you're familiar with Beetle mechanicals. Graft on the rear assembly to the spaceframe and bolt-on the front suspension, and the car is already on its wheels. Make up a floor from aluminium and rivet it to the rails; fasten on the body panels; locate the Beetle's handbrake, pedal assembly, gear linkage and steering column; position the instruments and switches in a centre console; add the wiring and fuel tank, and you're nearly there. Just add the fuel and brake lines plus bolt down the four seats and add the Cibie/Bugpack lights, and a basic Fugitive IV could be finished for as little as £1650 in under 150 hours.

Initially, the unwelded chassis will set you back £278 + VAT, a welded unit is £398 + VAT while a fully bracketed welded chassis ready to accept the Beetle components is £478 + VAT. The body panels are reasonably priced at £335 + VAT.

The Fugitive range is able to cater for most people's needs, whether it be an all-out racer, a fun car or just a stark method of transporting the family. If driven sensibly, excellent fuel figures should result whatever engine is installed, and for a very economical figure a completed Fugitive will provide superb fun however it is driven. Thanks to the helpful and co-operative team from UVA, build-ups should present little or no problems and, remember, if you don't install all UVA's fancy accessories to start with, don't feel left out. You can always add them to your car at a later date when time and money afford.

For a fully informative brochure send £1 to **The Unique Vehicle & Accessory Co. Ltd., Argents Mere High Technology Park, Hambridge Lane, Newbury, Berkshire RG14 5TU. Tel: 0635 33888.**



Artist's impression of the completed Fugitive III. To see it is to want it!

A contented Nick Evans waves to his fans as he disappears with his dream car.