Front suspension is Troll's own double A-arm design, matched to Triumph uprights and coil-over shocks. Note the way that the cycleguard stays even have welded-on reinforcing ribs.

Dashboard looks simple, but is actually a stressed part of the design's tube section steel and aluminium clad space frame under the vinyl padding. Gauges are Smiths-style, but embellished with Troll logo.

Under the hood, simplicity is the keynote. Engine bay will accept Rover K series or Vauxhall 2.0 DOHC.

Weighing in at a tad over 600kg on the road, and with a mere 125 bhp twin-Webered 1700 Kent to provide the urge, the Troll easily delivers 6 second 0-60mph time. Moreover, you are looking at a vehicle here that can produce the sort of uphill neck-snapping acceleration which is the nearest that most of us ill come to VTOL flight without a pilot's licence.

And yet, set against the bulbous shapes of today's Sierras, Astras and Nissans, the inescapable impression is one of relative frailness. Even once behind the wheel, it can be difficult to convince yourself that Trolls have collided with trees at 30mph and come off with nothing worse than a slightly twisted wishbone - though of course, this is something that owners are not advised to prove for themselves.

The "super lightweight" Troll T6 competition kit car sampled only serves to intensify these feelings of morality: no roll-over bar, no windscreen ...and only a grab handle between the passenger and the tarmac while the driver expertly four-wheel drifts round one of many impossibly sharp switchbacks. If your correspondent had been a leech, he'd have got out and walked *....(Sounds like Peter James was at the wheel!- Ed.)* Troll Engineering Co. Ltd. of Minehead (tel: 0643 703721) have been in business of trials car manufacture for around 15 years, during which time over 30 examples of the T6 in one or other of its various forms have been made. The original two T6 cars were prototypes, leading to the "production" T6B and T6E models, with a works lightweight one off - the T6C - and an experimental road car, the T6 D, filling in the gaps. And to add icing on the cake, the T6E is now recognised by the RAC as a bona-fide production sportscar from 1st January, 1993, in all forms of motorsport.

Nuts and bolts

Mechanically, the Troll is based around a fully triangulated tube steel space-frame. At the front a double A-arm layout is employed matched to adjustable coil-over shocks and an anti-roll bar. The rear features an Escort MkII live axle, suspended again by coil-overs, and located by a 4-bar set-up matched to a Panhard rod. All the links of which are fully rose-jointed where necessary.

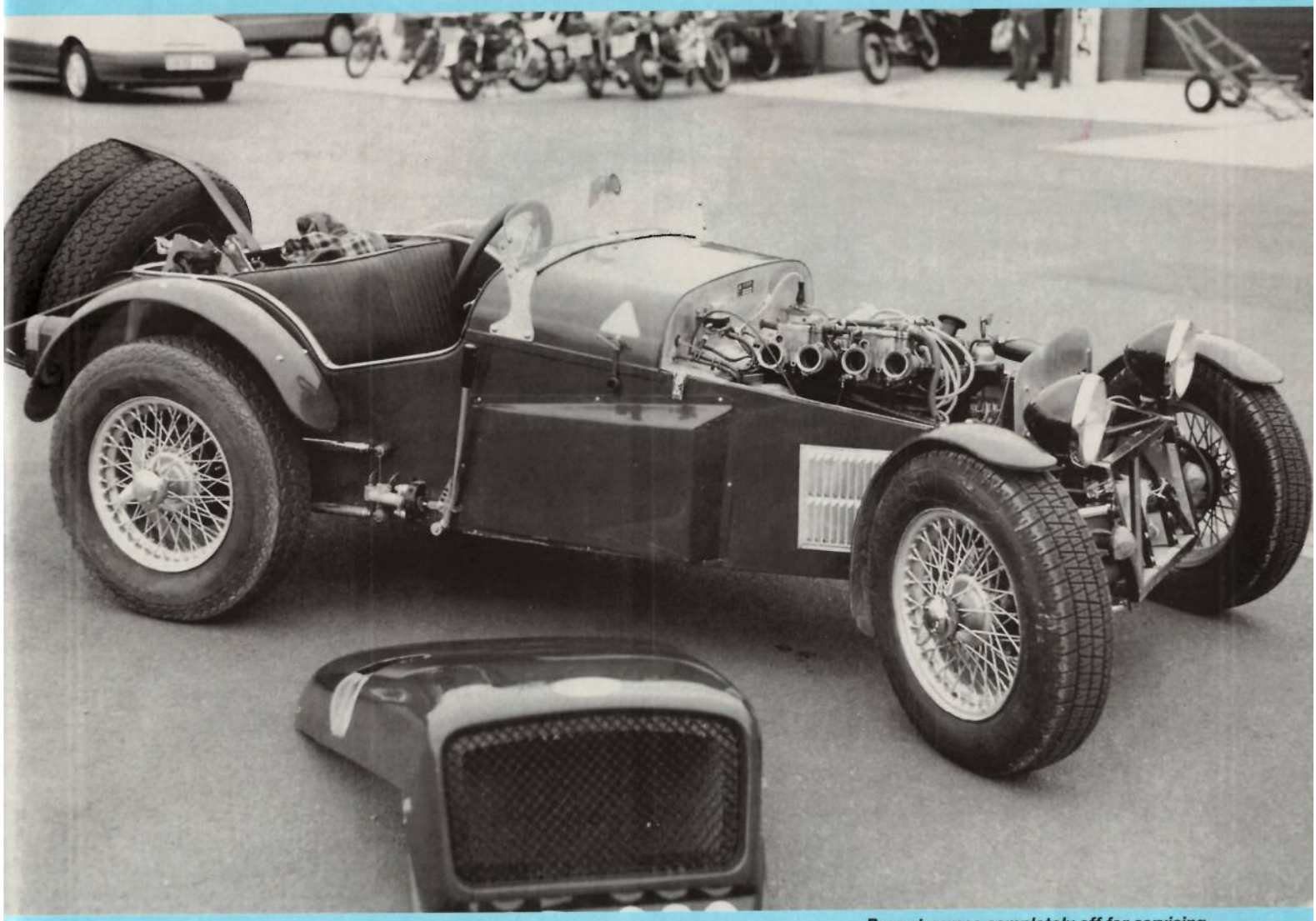
Woblinks! Honest?

The latest Troll model - the T6F - goes a step beyond this, and adopts what is known as a "Woblink" to locate the back suspension transversely. Though the Woblink may not be as simple a solution as the Panhard rod, what it does have going for it - compared to say, the Watts linkage - is that the resulting roll centre is now sat well down towards the road. Which, according to Troll Engineering, is the secret of getting a live axle to work properly from a handling stand-point.

As high ground-clearance is not at such a premium with the T6F as one the trials cars, the opportunity has also been taken to site the rear axle within the confines of the chassis proper. Removal for major servicing is simply a matter of passing the complete axle - drums and all - out through the sides of the frame. Now, what you can't so easily see behind the Troll's bare mechanical

There are fast cars, and then there are quick cars. The subtle difference being that a quick car is a fast car that also handles. And make no mistake, the Troll T6 is certainly one helluva quick motor-car.

TALES FROM THE FJORD



Bonnet comes completely off for servicing. This car's Ford Kent OHV boasts no-holds-barred twin DCOE Webers and open intakes for competition.

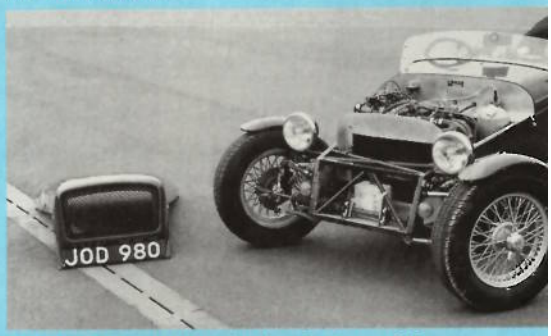
specification, is the detailed design work that has gone on before anyone came around to cutting metal for the first prototypes. So, rather than start by making the car fit around a chosen set of donor vehicle running gear, Troll Engineering's approach has been to go right back to basics. Indeed, it is probable that Troll make more of their car in-house than do Ford or GM. This meant deciding that at the outset just what the car had to do, and how it was to go about it. Apart from computer aided design and modelling input, there was the not-inconsiderable trials experience of managing director Peter James has also been drawn on extensively.

No more playing about with it

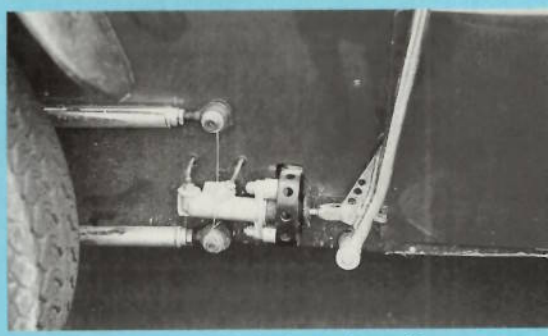
All that expertise, development and evolution has now found its way into the T6E. So, the rear suspension is made the way it is to incorporate just the right degree of anti-squat characteristics for maximum traction. At the front, the latest T6 models now have A-arms that are non-adjustable - because the "right" settings are now programmed into the jigs.

The same reasoning, lies behind Troll Engineering's decision to supply and make their own steering racks. The rack and tie rods are the length they are simply because that's what's needed for optimum bump steer control and to minimise toe changes. Unlike the more typical kit car "package" then, there really are relatively few options open to the Troll builder.

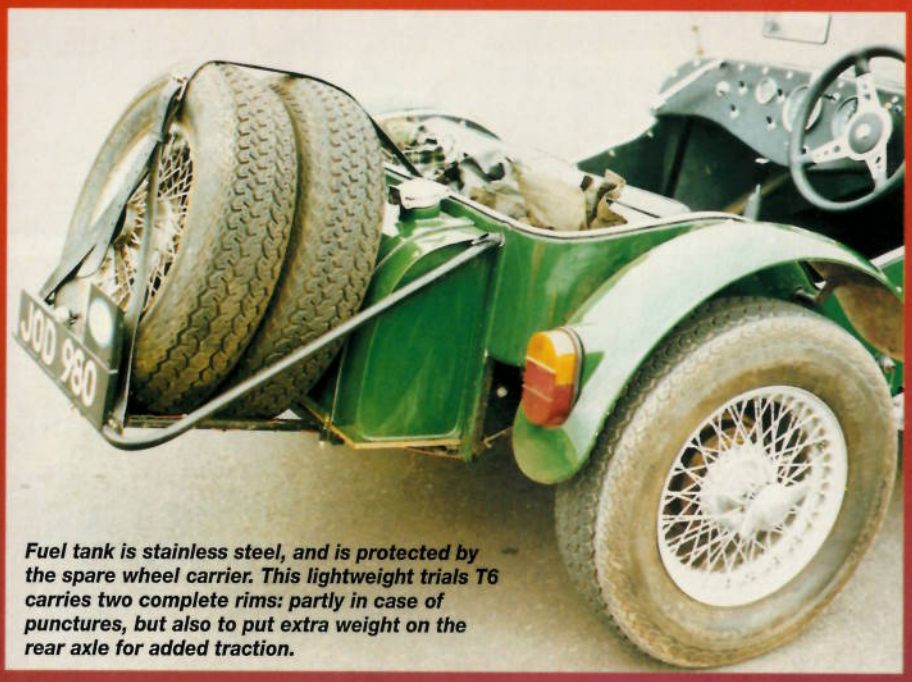
Naturally, Troll Engineering do not insist that you buy everything from them. Customers are free to get Triumph stub-axles, shock absorbers, wheels, instruments, brakes, wiring sundries etc. from any of the other usual specialist car components suppliers - though the company does have a policy of being able to supply virtually everything necessary to complete a car from stock. But as to the actual type and pattern of the Troll-specific item in question, there can be no substitution. And that, in a nutshell, is why the car as a concept works so well. All you the DIY Troller have to do, is bolt everything together, just as it says in the comprehensive instruction manual. Thus, the normal nagging doubts as to whether or not "your" car will come out to be as good as the company demonstrator just don't come into the buying equation anymore.



Substantial cross-bracing is a feature of the front of the car. Plastic bottle is catch tank for engine oil breather.



Optional "Trials Pack" includes such goodies as hydraulic external handbrake used to control rear-wheel spin on rough surfaces; LSDs are outlawed under competition rules.



Fuel tank is stainless steel, and is protected by the spare wheel carrier. This lightweight trials T6 carries two complete rims: partly in case of punctures, but also to put extra weight on the rear axle for added traction.

Agreed the choice of power plant is limited, but with such a high power-to-weight ratio - in the order of 154bhp per tonne for the 1 700 Sprint version after allowing for driveline losses - is there really a need for more poke? Especially when you consider that one of the company's cars recently managed to see off a 350 Chevy-powered Cobra replica at Avon Park Raceway's quarter-mile drag strip.

In fact, Troll Engineering's choice of the Kent 1600 pushrod rather than the more usual 2.0 OHC Ford, has as much to with paring weight to the minimum, as it has with making the engine block's mass and position an integral part of the handling equation. Recent developments aimed at offering the T6E with either Rover's K series or the Vauxhall DOHC 2.0 litre centre around the crossflow's inability to "green" rather than any overt quest for greater power. Of course, with the 2.0 Vauxhall unit, the car should become very rapid indeed ...in theory down to sub 5-second 0-60 territory.

Sitting Comfortably - Not

As to the Troll's creature comforts, there ain't that many. The T6F road car is to have a full hood and sidescreens, but for the trials-orientated T6E, normal weather equipment is a tonneau cover. The windscreen frame - which by the way is chromed brass as opposed to the usual plated steel - is poppered for a hood, should you wish to have a local trimmer run you one up out of double-duck material.

Seats are upholstered GRP bucket shells, which do double duty by contributing to the lateral rigidity of the cockpit area. As these are fixed, accommodation for varying inside leg measurements is achieved by having the pedals adjustable. The body is cut away too around the driver's footwell and has an external GRP blister for extra lateral space. No doors of course - again in pursuit of that all-important goal of chassis integrity - you've just got to get used to hopping in and out with as much elan as is decently possible ...

Heater and wipers are Mini, and barring safety belts - trials car's don't use harnesses as part of the name of the game is for the passenger to act as "mobile ballast" - that's about it.

Safety is of a far greater order than the car's frail looks might suggest. The roll-over bar is sprung straight off the top of the rear axle's suspension towers, and on the T6E, the spare wheel

mount doubles as shunt protection for the external stainless-steel fuel tank. Inside, the passengers are protected from any failure of the propshaft by what our American cousins might refer to as an "explosion-proof" tunnel, itself covered by a grain-effect GRP moulding for neatness.

The nitty-gritty

Now, how much, and how good?

Well, the entry level threshold to Troll ownership can be as little or as great as you can afford - but a realistic figure for the T6E would be £5,314.28 inc. VAT for a comprehensive "starter" pack. This would buy you the body-chassis unit, ready clad in aluminium sheet, bonnet, footwell, wings, transmission tunnel, wing stays, engine and gearbox mounts. Also included are the pedals, handbrake, spare wheel carrier and roll over bar, shock absorbers and springs, all necessary axle locating rods, a full nut, bolt and washer kit, anti-roll bar and complete steering column. For another £2,000 or so, there's a more complete specification which amongst other things, covers the windscreen and stainless steel tank.

You'll still need to find wheels and tyres, and of course the engine and gearbox. Having said that, most of Troll Engineering's customers who have gone the self-assembly route,find that total expenditure tends to level out at between £9,000 to £10,000, on the road.

A factory finished car will set you back £14,887.50 including VAT for the 1600 GT version, with the 125bhp 1700 Sprint weighing in at £16,487.50, again with the VAT. A competition Trials pack that includes special handbrake and safety equipment would add another £619 inc. VAT to these prices. T6E road car derivatives are expected to be in the same price range, though on balance should be slightly cheaper to buy, since the design is somewhat simpler to manufacture.

As to how good, suffice to say that on the road, most ordinary mortals would not come anywhere near fully exploiting the limits of even the trials-orientated T6E's handling potential. The T6F, with its much lower ride- height, modern 185 or 195 section 60 series tyres instead of the T6E's regulation trials pattern 15 inch, 80 series rubber, should have greater reserves of road-holding still.

The competition? Not as direct as might be expected. The Caterham 7 looks the obvious alternative, both in terms of packaging and cost. Go for one of the "clones" such as the Westfield or Dax Rush, and you might manage to trim something like £2,000 off the Troll's estimated £9,000 all-in bits wish-list.

But while the Troll may look somewhat agricultural compared to these other sleek projectiles - leaving aside the forthcoming road car for the moment - its mechanical specification is bang-up-to-date. Plus, the T6's trials pedigree has endowed the car with necessary reserves of strength to cross the sort of terrain you'd normally only want to tackle in a Land Rover.

And consider this for a parting shot: of all the Trolls that ever were made, only one has been sold on - only to be bought back by its original owner shortly after!