



# A little project

Who said the British motor industry was dead? In a small corner of Cheshire it has been humming — and banging, sawing, drilling and painting — for much of the last decade.

**ALAN DINNIS** recounts a real labour of love

HAREWOOD HOUSE, venue for the recent National Rally, has hosted MMOC events on several previous occasions. My wife Gill and I attended the National Rally there in 2002, but little did we guess that the seed was about to be sown for a project which would keep me occupied for the next seven years.

We were wandering through the regimented lines of lovingly-tended cars on the rally field when we spotted a Morris Minor camper van — a most unusual thing. We made our way over to look, but hidden behind the van was something even more spectacular. It was a beautiful green Morris Minor Convertible, just six feet long and perfectly formed.

Gill was quite taken with the little car. 'Now we have a baby grandson, why don't you make one of those?' she said.

I thought about it briefly. The idea was attractive but there was one major problem. 'No', I had to reply. 'It would be fun, but I'd

never be able to make a bodyshell to look as good as that.'

We ambled on to browse at some of the traders' stalls before making our way back to our own two-door saloon, HDL 593E, for lunch. As we passed the little green car again we heard its owner talking to a small crowd that had gathered. 'The bodyshell is made from fibreglass,' he said. 'I had a small batch made and have a few left, if anyone is interested.'

The married men among our readers will notice two vital points of interest here. Firstly, the bodyshell problem was as good as solved. Secondly, the whole idea of spending the long hours necessary to complete the project was my wife's — always a useful thing to remember should the going get tough.

I introduced myself to the little car's owner, Jim Lambert. A deal was soon struck and a date agreed for me to collect a bodyshell. It soon became apparent that

Jim is a genius. The bodyshell was not just a scaled-down version of the Morris Minor Convertible, for that wouldn't have worked. The dimensions had been subtly altered to make it suitable for accommodating two small seats, instead of the usual four, and to enable the finished fibreglass shell to be released from its mould. In spite of all this the results were pleasing and had that air of 'what looks right *is* right'. As a bonus, Jim was able to provide scaled-down versions of the Morris bonnet and boot badges, too.

Back home I was delighted to find that the two Minors would fit in my single garage: HDL 593E in the normal way, with the little car bodyshell in front, albeit at right angles.

### Design decisions

The next few months could be described as the 'design phase'. Time for some tough decisions. The first question was: how should the car be powered? Should I follow Jim's example and fit a two-stroke petrol engine, or should I look for one from an electric invalid buggy? Mindful of my limited knowledge of all things electronic, I decided that two-stroke should win the argument. Here I again followed Jim's lead and purchased an old Puch Maxi, a moped fitted with a very neat 49cc E50 Daimler-Steyr-Puch engine. The moped provided me with a suitable brake assembly and a speedometer of just the right size, too.

The next big question was which model of car to reproduce. This was a

comparatively easy decision. The bodyshell wasn't a lowlight type but the windscreen would be in two pieces, which naturally led to a Series II model; the high-headlamp wings were introduced in 1952 and the split windscreen disappeared with the advent of the Minor 1000 in 1956. I decided to follow the specification for one of the later Series II cars, from early 1956, which would have the slatted radiator grille rather than the earlier 'cheesegrater' style. Out of the cupboard came my trusty wooden drawing board and tee-square and I started to draw.

In parallel with the design process came the 'collecting bits' process. The man repairing invalid carriages behind the local 'Helping Hand' shop gladly sold me four suitable 'pre-owned' spoked wheels. The steering wheel casting, headlights and tyres were purchased as new spares through the Austin J40 Pedal Car Club — the J40 steering wheel looks just like a junior version of the metal-spoked Morris Minor one. Triumph Herald hinges were acquired for the boot, various autojumbles were searched for bits and pieces and the local engineers' store and scrapyards consulted about what steel and aluminium materials were available.

### Manufacturing solutions

Eventually the major design details were worked out in my mind, with many of them recorded on paper. It was time to begin manufacture.

At the end of my garden is a shed, known rather grandly as 'The Workshop'. It's not very big, but it has an electricity supply and a good six-inch vice bolted to a sturdy wooden workbench. There is also a small bench grinder, useful for keeping tools sharp. Otherwise all the equipment is man-powered, except for an electric bench drill which replaced a 'handraulic' bench drill a couple of years ago. There is a small metal-cutting lathe that is treadle-driven and which recently celebrated its centenary — without a telegram from the Queen, I would add. Finally there is a pre-war hand-driven shaping machine that, like the lathe, requires good muscles, acquired skill and plenty of patience when used for cutting metal. All in all, it's a rather motley collection but nonetheless a useful one.



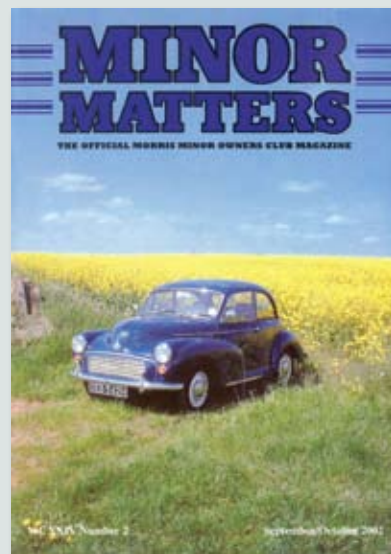
The bodyshell, one of a batch manufactured to Jim Lambert's design.



The wooden pattern for the dashboard: plaster of Paris was poured around the pattern to make a mould.



Fibreglass laid up in the dashboard mould.



When Alan Dinnis spotted Jim Lambert's miniature Convertible at the National Rally in 2002, David Harvey was getting to grips with the job of editor of *Minor Matters*, which he had taken on at the beginning of the year. The magazine was then still printed mostly in black-and-white, but with a full-colour cover and eight colour pages inside. These were used to good effect in the Sep/Oct 2002 issue for a feature on the Barnsley JOGLE, then in its ninth year, and a report on the display of 'dancing Minors' at the closing ceremony of the Commonwealth Games in Manchester. This issue won 1st Prize in *Classic Car Weekly's* 'Club Magazine' awards.

I ALSO HAVE a large handful of limitations. I can't weld and a few of the little car's bigger parts needed more ambitious machinery than mine. I am, however, blessed with a wonderful bunch of friends in the MMOC's Manchester Branch. They provided encouragement and occasional practical help, so the only commercial engineering services needed were those for modifying the exhaust pipe and welding the chassis.

Some of the initial work involved making further glass reinforced plastic (GRP) parts. For the dashboard and hubcaps, wooden





patterns were made from which moulds were cast in plaster of Paris. GRP was then laid up on the moulds. For the inner wings, glove boxes and bumper valances, the fibreglass could be laid directly on to wooden moulds. Lack of space in the shed meant that some of this work had to be sub-contracted to the greenhouse!

The chassis was largely constructed from 1in square steel tubing, with a framework of aluminium angle added under the bonnet to support the brake and accelerator pedals. The moped's original speedometer dial was scanned into a computer and, using a graphics program, altered to resemble the Morris Minor original. The speedometer has been constructed to work accurately, but the drive has deliberately not been fitted — speed could be a temptation to a young driver! The door handles and parts of the handbrake mechanism were made from old stainless steel machinery name-plates.

The seats were made from plywood bases with the back frames laminated from wood to provide strong supports for Pirelli webbing. Each seat contains foam cushioning and eleven compression springs, for any form of chassis suspension would have been too complex. I made the seat covers on Gill's domestic sewing machine; permission was given on the strict understanding that if I broke it she could have a new one — fortunately, it survived unscathed. By pressing a single button the two seat assemblies may be lifted out to give access to the engine.



TOP  
**Not an exact scaled-down replica:** the dimensions of the little car were subtly altered.

ABOVE  
**Designing the hood and roof frame** proved one of the most difficult tasks of the whole project.

LEFT  
**The boot,** complete with spare wheel compartment and fuel tank.

I also used the sewing machine to make the hood. Designing the roof frame and hood to fold back neatly was one of the most difficult tasks of the whole project. A full-size Minor frame reproduced to half-scale would have been too flimsy and the length, breadth and height proportions of the little car are different. I also had to redesign the attachment of the hood frame to the top of the windscreen; vertical pins, as on a full-sized car, would be a hazard to a young driver.

The fuel tank, originally from a lawnmower, is located in the boot. The car's chain drive and brake actions are taken through the nearside rear wheel only, with the offside rear wheel free to provide the differential action. The moped engine was a 'twist-and-go' type, so control of the car is by two pedals, an accelerator/clutch on the right

and a footbrake on the left. The headlights, sidelights and brake lights all work, but the windscreen wipers are dummies. The horn works when the engine is running, but the sound is more reminiscent of a duck than a Minor!

The finished car is heavier than the moped from which the engine was taken, but the reduction in road wheel size from 21in to 12.5in helps to maintain sufficient power. As an extra precaution the engine's 16-tooth driving sprocket has been replaced with a 12-tooth one. I recall reading somewhere that, by opening out and polishing the inlet and exhaust ports, someone in America achieved more than 80mph with an E50 engine. I'll gladly settle for 8mph!

### Finishing touches

From the limited range of colours available on 1956 Minors we chose Clarendon Grey bodywork with maroon interior trim because it would look bright and cheerful. Glenn Reid of Manchester Branch volunteered to do the final paintwork. He did a superb job and the result is magnificent.

In February, while Glenn was busy on the painting, the dreaded word 'decorating' was mentioned by — well, you can guess. I had already assembled the chassis, engine, etc, so one Sunday evening I collected a heap of dust-sheets, paint, rollers and brushes and cleared the lounge. With superb timing Glenn delivered the bodyshell the very next morning.

'It's freezing in the garage. Now the lounge is cleared, why don't you assemble the car indoors?' was Gill's immediate response. I would never have dared to suggest that myself, but I didn't refuse!

It won't take long to read this article, but from start to finish this project took seven years to complete. The little car has a removable adult seat, so after engine trials all that remained was to ensure that grandson William still fitted. He did, so driving lessons began on the lawn during the summer. A younger brother has now joined William, but it will be a few years before Adam is old enough to share the fun.

One of the final decisions related to the little car's registration plate. Should it be a personalised one? Eventually I decided to give it an Isle of Wight 'DL' registration that would be contemporary with the car's 1956 features. After all, Gill and I both come from the Island, my first Morris Minor was VDL 695 and we still own HDL 593E.

We also thought it would be a nice tribute to the MMOC's Isle of Wight Branch. Gill and I have been members since the Branch was founded, but our work-induced exile in Cheshire means that only occasionally do we get to their meetings or their superb annual rally held at the wonderful Isle of Wight Steam Railway. It is one of the best in England.

The little car has attracted some interest

## INTERIOR DETAIL



**Good matches:** an Austin J40 steering wheel, and speedometer from a Puch Maxi moped.



**Alan made the seat covers** himself using Gill's domestic sewing machine.



**The seats can be removed** to gain access the engine.

in our neighbourhood and more widely. It was much admired by a local retired policeman, but he was quick to add: 'Don't you *ever* take it on the road or even *think* of using it on the pavement!' It received its first public outing at Manchester Branch's Winter Rally at Manchester Museum of Transport, where it proved quite an attraction parked next to a 'real' 1956 Clarendon Grey four-door saloon.

MORE RECENTLY we took it to its first National Rally, most fittingly back at Harewood House once again. As I watched the cluster of people gathered around the car on the rally field I could not help asking myself whether, had I known how many years it would take, and how many hours of planning, designing, and building would be involved, I would have embarked on the project... well, what do you think? I have seen my grandchildren's faces, and heard the squeals of delight as they drive their own little Minor. ●



**Alan's grandsons**, William (8) and Adam (4), are delighted with their 'little Minor'.

## COMPARISON TABLE

	Original 1956 Morris Minor Convertible	Miniature version
<b>Length</b>	148in (376cm)	66in (168cm)
<b>Width</b>	61in (155cm)	31in (79cm)
<b>Height (hood closed)</b>	60in (152cm)	31in (79cm)
<b>Engine</b>	803cc (49 cubic inches), four-cylinder, four-stroke	49cc (3 cubic inches), single-cylinder, two-stroke
<b>Horsepower</b>	30bhp	2.2bhp
<b>Transmission</b>	Manual four-speed gearbox and clutch	Automatic
<b>Brakes</b>	7in drum on each wheel	Single 3.14in (80mm) drum brake on one rear wheel
<b>Tyre size</b>	155mm x 14in	12.5in x 2.5in
<b>Weight</b>	1656lb (751kg)	192lb (87kg)
<b>Turning circle</b>	33ft (10 metres)	14ft 2in (4.3 metres)
<b>Top speed</b>	63mph	Not for the faint-hearted!