





Aftermarket tuning is nothing new. Remember all those jacked-up specials in the Seventies? Well, this MGA with a Judson supercharger kit is earlier still – it's nearly 50 years old.

'VE OWNED OLD cars for decades – it's a large part of my life because it's also my job. I run an MoT station and village garage in Leeming, North Yorkshire. I've never had an MGA before this one, though – MGBs, Triumph Stags, plenty of Minis and a large number of Fiat specials in the Seventies, but never an MGA. But my son knows the sort of thing I like, and he called me up one day in 1998 to tell me about this part-restored MGA. It seems the seller's wife had lost patience and it had become a 'me or the car' situation, so I told him to follow it up.

Mick Handy tells us

how he rebuilt it

The MGA is a very pretty car, and I was keen on the idea straight away, though 'part restored' didn't quite tell the whole story. When we agreed a price and went to pick it up, it took a trailer and two vans to get all the bits home, including various British Bakeries boxes full of assorted parts, long since removed from the car. It was time for a serious sort-out.

We'd got a bodyshell with lots of shiny paint – but of unknown condition – and a chassis that looked almost finished. In fact, that was the easy bit, as the only remaining welding the chassis required was a pair of battery trays.

But everything else was a jigsaw. The engine and gearbox were dismantled and stuffed into tea chests and, on closer inspection, the shell wasn't up to much.

I decided on a total strip-down.

So every remaining nut and bolt came off the car, and everything we could identify came out of the boxes, and all the fixings went away to be blast-cleaned and then nickel-plated.

Sure enough, the shell turned out to be full of filler, which was a shame as the previous owner had spent a lot of money on it. He hadn't been lucky with the people he chose to do the work. Part-restored cars always have these little surprises waiting for you, like the apparently reconditioned distributor that I didn't realise had been assembled wrongly until I tried to drive the finished car.

I continued with the programme of shotblasting and painting all the metal components of the suspension, as well as the chassis (twopack black, like the body was going to be).

I treated the car to new springs front and rear and new bushes, bearings and seals throughout. One thing you can say in favour of nearly all MGs is that the parts supply is excellent. Just as well, as this car was nearly half a century old, and after a tough life in the USA, it needed plenty of new parts.

It's a 1957 example, this one, which makes it a fairly early car – they were built from 1955 to 1962, and for the first four years the engines were the 1489cc version of the B-series, which meant the car was good for nearly 100mph.

Quick, but not that quick. Considering the car was a rival for the larger-engined TRs and Austin-Healeys, this left plenty of room for improvement.

My son was making trips to the USA at the time, and it was there that he heard about the Judson supercharger kit. Judson made these kits for various cars, including the TR3, the Mercedes 190 SL, the VW Beetle and even the Renault Dauphine. The firm claimed some serious power increases; 45-50 per cent in the case of the MGA, which was a bit ambitious – a 1500cc car was tested by a magazine and the power output had gone up from 68bhp to 90bhp. The kit included more than just the supercharger pump, because there was a fair bit of fitting required. For \$248 (£133) in 1957 you got the blower,

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the inlet manifold, the pulleys and a singlebarrel Holley carburettor. You need to add a zero to the price for a good one today.

You also got a very handsome Judson rocker cover, which extended beyond the back of the cylinder head to cover the little oil tank that supplied total-loss lubrication to the supercharger. This means lots of oil gets into the upper cylinders, which keeps everything protected, but can lead to plug fouling and always means a couple of minutes of blue smoke when you start the car from cold.

My son managed to source one of these kits through a US Judson specialist, and luckily it was already in the UK and had covered less

than 500 miles since being rebuilt. This particular car hadn't been fitted with one before, but when I built the engine I made sure it was the right specification to take the supercharger. That meant balancing the bottom end assembly for smoothness and, of course, fitting new big ends, main bearings and oil pump. In the end I needed a new cylinder head from Moss, which came with hardened valve seats for unleaded fuel. I then had the combustion chambers matched and I've used a custom made, double-thickness steel head gasket to lower the compression ratio to 7.8:1, ideal for a supercharger running 5-6psi.

Other mechanical jobs included rebuilding the gearbox and replacing all the adjusters and springs in the brake assemblies. But it was the body that was going to take the most time. The aluminium panels required numerous repairs to fix 50 years of damage, and some steel panels needed repair or replacement as well — we discovered some less-than-perfect welding once all the filler was removed. In the end, the car got new sills, an oil cooler panel, floors (which are wood) and sections at the bottoms of the rear wings.

Even brand new panels can't be relied upon, though. The rear corners of the sills just didn't fit at all – they were like a right hand in a left-hand glove. So rather than modify them or order some more, I thought it would be quicker to make my own. After finishing the shaping to my satisfaction, I welded them in and leaded the join for a smooth finish. I used lead loading in preference to filler all over the car, as it's just a better way of doing things. It also helped me to make a neat job of extending

# 'It's at its best on a stretch of country lane where you can really open it up'



Mick learned the ancient skill of lead loading from an old pro. He recalls: 'I once had a customer who wanted a proper leaded repair to his E-type Jaguar, so I found an old boy of 75 who could do it. When he turned up, I showed him the car and he said: "I'm not doing it. You are!". He cuffed me round the head until I got it right.'

If you don't want to be beaten up but still want to know how it works, here's the theory. First, clean the metal surface you're working on, heat it briefly with a blowlamp and then cover it with flux. Wipe the flux off, leaving a silvery 'tinned' finish, and heat the surface again until it's warm enough to melt the lead (actually a thick 70:30 stick of lead/ tin), allowing you to stick a bit of lead to the metal. Then comes the skilful part – you heat the lead some more and smooth it into the surface with wooden paddles, which are dipped in oil or tallow to stop them scorching. Once you're finished, you just shape and smooth the repair with a hand file or scraper (no power tools – too much heat generation) and remember to wear a mask to avoid breathing in lead dust.

Then wash the finished area to remove any lead acid which could upset the paint finish. Why bother with leading? It's waterproof, unlike body filler, so rust won't reappear.

### **HOW HE DID IT**



Old repairs were cut away, whether rusty or not...



2... and new ones carried out properly.



New sills go on. Note lack of wooden floor.



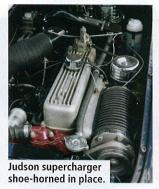
To fill bad door gaps, tack wire strip to panel edge...



...then fill in welds, grind and lead-load.



| SPECIFICATIONS: MGA 'JUDSON' |                  |
|------------------------------|------------------|
| ENGINE                       | 1489cc           |
| POWER                        | 105bhp@5000rpm   |
| TORQUE                       | 95lb ft@3500rpm  |
| GEARBOX                      | 4-spd man        |
| TOP SPEED                    | 105mph           |
| 0-60mph                      | 12.5sec          |
| MPG                          | 25-30            |
| LENGTH                       | 13ft (3.96m)     |
| WIDTH                        | 4ft 10in (1.47m) |
| WEIGHT                       | 2110lb (957 kg)  |
| INSURED FOR                  | £20,000          |





some panel edges to get the door gaps right.

When the time came to assemble the car, I was grateful for some help from Tony, the lad I work with here at the garage. He and I took our time to get it right, which meant looking up old photos in books and magazines to see exactly how certain areas should look.

One troublesome area was the dashboard — after fitting what amounted to a new interior, I didn't want to get this wrong. The colour was really hard to match and no record exists of the original factory red used on this model. In the end I used an early 'Frogeye' Sprite body colour. I also completed the conversion back to right-hand drive. My son sourced an aluminium works hardtop and it now sports

an original Lucas Flame Thrower spot lamp, too. One fiddly job was fitting all the pulleys at the front of the engine. I saw when I was putting it together that it was all so close to the steering rack that replacing a belt was going to be a right pain. Because of that I put some spare belts behind the pulleys that can be lifted on easily if one should snap. It's better than removing the rack at the side of the road.

After the two-pack black shell was re-united with chassis, engine and interior, it took a fair bit more work to finish it off – I'd do a lot in a month, then the business would get busy and we'd have to stop for a while. But the car was finally re-registered on July 5, 2005.

It's a huge pleasure to drive, with that great

big wheel in front of you (adjustable for reach—not bad for 1957) and the supercharger singing away, competing with the old B-series exhaust note. It's a very narrow car by modern standards and you do feel close to the road, but the gearchange is easy and accurate and the view down the bonnet is superb.

It's at its best on an open stretch of country lane where you can open the throttle and watch the needle on the boost gauge I've fitted flick round as the noise builds and the air rushes past – lovely. I may even let my son drive it when he next comes home for a visit.

But it's finished now and I'm on to the next project. It's a Formula Junior engined 1071 Morris Mini Cooper S, a very rare model indeed (yes, back to Minis again) which is currently just an engine, a pile of bits and a bare shell. Sounds familiar, doesn't it?









#### **NEED TO KNOW**

**Mick Handy Motors** 

Roman Road, Leeming Village, Northallerton, N. Yorks (01677 422032) Mick has various other projects on the go, and he has no storage space for the car, so the MGA is now for sale.

AMAC Engineering – Northallerton, N. Yorks (01609 779600)

George B. Folchi – Judson supercharger

sales, spares and repairs, Connecticut, USA. (00 1 860 355-2807, email: abfolchi@yahoo.com)

Moss Europe – Supercharger kits and other spares, www.moss-europe.co.uk Johnson's Gaskets

Bradford, W. Yorks (01274 682298) **Bob West** – MGA and Twin-Cam
specialist, Pontefract, N. Yorks
(01977 703828)



Numerous metal bits are blasted and nickel-plated.



Once painted, you can't tell the old from the new.



Shell finally meets chassis for painting.



IF YOU have a restored car as good as this MGA you could win £2500 to spend on your next project.

All you have to do is send in pictures and details of your restoration and if it is picked we will feature it. Then in the November 2006 issue we will present the eight featured cars together, and you'll be able to vote for your favourite by phone, by post, on the website or by email. The winner will receive £2500 to spend on a restoration project of his or her choice; second place wins £1000 and third place £500.

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Send details of your car to: Practical Classics Turtle Wax Platinum Restored Car of the Year, Media House, Lynch Wood, Peterborough, PE2 6EA, or email graham. flemington@emap.com. Good luck.