

HOW TO MODIFY

RENAULT 5
GT TURBO

The 5 GT Turbo is fast, funky, affordable and dates from the days when hot hatches really were fun. Here's how to tune-up the force-fed Five...

Words Simon Charlesworth
Photos Richard Parsons

PROS / CONS

- + Power-to-weight ratio
- + Handling
- + Easy-to-tune turbo motor
- + Pure '80s styling
- Aftermarket bodykits
- Badly modified cars
- Turbo lag
- Torque steer

Drawing heavily from the rather ancient Renault 4, Renault entered the super-mini market in 1972 with the logically named Renault 5. At first, power came from two small, longitudinally mounted, overhead valve petrol

engines – 845cc and 965cc – and it initially came with an annoying French-style dash-mounted gearchange (à la 2CV). Underneath, it was suspended by torsion bar suspension all round (transverse at the rear) and the car was styled by Michel Boue.

(Interesting anorak facts: the 5 was originally designed to have full-height C-pillar rear lights and was the first car to have moulded plastic bumpers.)

Soon enough, in 1974 a proper gearchange was added, when the 5 gained a larger 1289cc engine. This year also saw the notchback version of the 5 being built in Spain by FASA-Renault (dubbed

the 7) and the 5, or the Le Car, exported to North America. Other developments included better specced TS and later LS models, an automatic version, a van derivative, the sporty Alpine/Gordini and the firebreathing Turbo model in 1978.

Due to this Group 4 rally special featuring a mid-mounted blown engine and rear-wheel drive, this really had very little in common with the standard car.

A year later the second-generation 5 started production with a new dashboard and interior, along with the introduction of a five-door model. And that was it, until the completely

"The first car to have moulded plastic bumpers"



Anorak fact: design originally called for full-height rear lamps.

reworked *Supercinq*, or Super 5, was launched in 1985. Actually, 'reworked' isn't a very fair description of the second-generation 5. Yes, it did bare a strong resemblance to Boue's original, but this was solely down to the clever styling that was undertaken by Marcello Gandini (think design-by-ruler: Lamborghini Countach, Citroën BX, and so on). Underneath, the Super 5 sat on the same platform as its larger relatives, the 9 and 11, and so was suspended by a less novel set-up at the front, which used MacPherson struts and featured transversely-mounted engines.

Sitting on top of the new range was Renault's entry into the go-faster super-mini sector, the 5 GT Turbo which was launched in 1986.

The basis of the GT Turbo's engine admittedly didn't sound terribly impressive: it was an overbored – from 1394cc to 1397cc – and modified Cléon from the Renault 8 Gordini (remember this OHV engine had roots that went all the way back to the '50s).

However, an air-cooled (only on very early cars, before becoming watercooled) Garrett T2 turbocharger made things far more interesting by pushing power up to 115 bhp. Nowadays that may not sound much, but

because of the 5's low kerb weight it meant that Renault's hot supermini was capable of 0-60 mph in just 7.1 seconds.

In 1988 the Phase 1 cars were replaced by the Phase 2s, the main cosmetic differences being that the Phase 1's chunky bodykit (typically early '80s in grey unpainted plastic) was restyled, made more aerodynamic and got a coat of colour-coded paint.

Notable mechanical changes included a longer-life water-cooled turbo, a new ignition system, which increased the rev limit by 500 rpm, and a headline power figure of 120 bhp.

The last major change to the GT Turbo Phase 2 came on line the following year when the car received a new interior. In 1991, Renault launched the Raider limited edition model, which had special interior trim, alloy wheels and metallic blue paint. Later that year the 5 GT Turbo was axed and would eventually be replaced by the Clio 16-valve.

The end came for the rest of the Renault 5 range in 1990, when it was replaced by the larger, better-equipped Clio in most western European markets.

The 5, however, did continue being produced in Slovenia as a very basic set of wheels until 1996, which means parts supply isn't much of a problem yet.

To get all the ins and outs of tuning Renault's '80s turbo terror, we spoke to Andy Bridge at Renault specialist BB Performance Tuning in Essex. Here's what he told us.





GT Turbo is capable of big power. Here's what you get if you do it properly.

There are two big factors that don't go in favour of the Renault 5 GT Turbo: firstly, even the newest cars are 15 years old; and secondly, they're still popular with boy racers. It's a combination that often ends with, at the very least, a blown head gasket.

"Unfortunately, we're having to advise a fair few young blokes who bring their newly bought 5 GTTs here that they're only fit for scrap," says Andy. So if you're in the market for one, do take care.

The 1397cc blown Cléon really does need to be in good condition, because its construction – an iron block with an aluminium cylinder head – really suffers from neglect and cack-handed modifying. So check the level and the state of the coolant. If it's a deeper orange than David Dickinson, then it's a sure sign that the engine block and cylinder head have started to react.

Ideally, you want a car that's been pampered and not messed around with, plus check that any tuning work has been carried out properly because it's easy for tinkerers to just whack up the boost a few notches.

"A lot of the time, people don't know what they're doing," says

Andy. "Unfortunately, because the 5 GTT runs a carb and a very simple suck 'n' blow ignition system, there aren't any real overboost or safety features on there. The one feature that's fitted to the car as standard is a pressure switch in one of the boost hoses. Take one of the wires off the switch and you can start cranking up the boost, which is one of the reasons why they've got a reputation for unreliability, overheating and blowing head gaskets. Tune it properly and these things won't happen."

A good first step on the tuning ladder is BB Performance Tuning's in-car boost kit. The kit comprises an in-car dash adjuster, pipework, and the intercooler is modified to run cool air. This kit is supplied and fitted, set-up on the dyno with printout and has a pre-set boost limit to prevent anyone from overcooking it (typically 14-16 psi). Power increase? You should be looking at something around 30 bhp, and it only costs about £180 plus VAT.

"Obviously, we reject the Solex 32DIS carb on the dyno, because you're looking at something that isn't new and could be worn. While fitting this kit you can put the same



Uprated alternator features on this car.



Cone filter improves the breathing. This is a Green Cotton item.

jet into four or five different cars and they will perform differently – which is another reason why we only do this in-house. It's for peace of mind," says Andy.

Is the Phase 2 more sought-after than the Phase 1, and is it actually better? "I wouldn't say it's better in all respects. I mean, it's typical of a manufacturer to make it look slightly different while cheapening a few things," advises Andy. "The main improvements are with the suspension; Renault straightened up the MacPherson struts to stop torque steer on the Phase 2 cars. Also, the Phase 2 cars had the ignition unit moved behind the firewall; Phase 1 cars had the unit



Uprated rad, low-temp fan switch and thermostat keep it cool.



Uprated intercooler allows uprated boost.

in the engine bay right next to the turbo, so it suffered from heat contamination." Other differences include some fixtures and fittings, a new bodykit, interior and wheels and installing water-cooling.

Want more power? Happily, with the 5 GTT going beyond the 30 bhp increase, gaining extra performance is still quite simple. It's a matter of fitting all-aluminium intercoolers, charge-coolers, better flowing exhaust systems and a more efficient turbocharger.

"The internals are relatively strong," says Andy. "You can quite happily take the originals up to silly levels of boost pressure, as long as everything is OK. I certainly wouldn't recommend anything higher than 180 bhp. If you want to go reliably beyond this then you're looking at rebuilding the engine, changing the cam, working on the head, and lightening and balancing the bottom end.

"You've got a choice of standard or slightly lower compression pistons," he continues. "This depends on the figure you're aiming for, because the standard compression ratio is fine up until 200 to 220 bhp. Beyond this you have to lower the compression because of the inefficiency of the fuelling and the ignition system.

"There's quite a lot you can do with the Solex 32DIS and there are so-called GpA carburettors out



Bleed valve works well if it's all set up properly.

there – all they are is a standard carb with a slightly bored out venturi. The problem with these, though, is that the venturi loses its shape and the fuelling is all over the place," he advises. "We probably do more rectification work to GpA carbs than anything else. What I would recommend is an overhaul kit with new gaskets and diaphragms. We can sort out the jetting on the dyno, not only on the main jet side, but also on the boost compensation side of things, so that it only provides fuel when it's on boost rather than all the time – which is what happens with some of the bigger carbs and does a lot of damage to the engine."

Fear not though, for if you want to go for the big figures and need the extra juice, BBPT does sell an electronic fuel injection conversion. Bolt this on to your standard car and, if it's in good condition, power will rise to 160 bhp, and you won't have to do a single thing, not even change the boost setting. It's all down to sorted fuelling and a lot more control over the ignition.

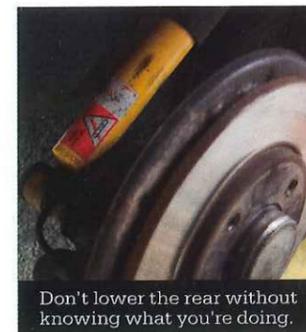
SUSPENSION

The Phase 1 cars do have a reputation for enthusiastic torque steer – nail the throttle, wait for the boost and you'll be squirming all over the road. Luckily, the modification that means the Phase 2 doesn't qualify for a tarmac ASBO is very straightforward and can be retrospectively fitted to earlier cars.

The main difference between P1 and P2 cars is different top mounts for the MacPherson struts. On the later cars, they're positioned so that the struts are more vertical and the geometry is less prone to torque steer. Naturally, this means that P1 and P2 struts are different (mainly in length and the angle of the bolts where they attach to the wheel hub).

"It's quite an easy job; you change the dampers and the top-mounts," says Andy. "Dampers are readily available – the only problem with this modification is that the top-mounts are no longer readily available from Renault, so you'd have to visit your local scrapyards," he advises.

If you've got around 180 bhp under the bonnet then you'll probably have to upgrade the suspension, because even the P2s were only designed for around 120 bhp. It's a case of the bigger the power, the better the suspension.



Don't lower the rear without knowing what you're doing.

There's a great range of uprated lowering springs and dampers available for the 5 GTT – whether you want to go for something simple or a pair of fully adjustable platform coil-overs. The torsion-bar suspended rear is rather more involved when it comes to lowering, so make sure you know what you're doing.

Finally, if you're a track slave, slotted front dampers and camber adjustment bolts are available if you want to dial up the amount of negative camber. A full range of polyurethane bushes are also available to tighten up the 5 GTT's suspension and, let's face it, after 15 years on the road most cars will probably respond really well to having their tired old frilly rubber bits upgraded.

TRANSMISSION

One of the first things to show signs of abuse is the clutch, particularly on a tuned car. BBPT's in-car boost kit does produce a headline figure of around 30 bhp, but it also kicks out 40 lb/ft of torque, too, which is quite a drastic improvement.

"A new standard clutch would probably be OK around this sort of level," says Andy. "Yet it's dependent upon how the car is driven. More often than not though, this is the level where we start to change to uprated clutches which can handle up to 220 lb/ft of torque."

As with any other car, a clutch will only last as long as it's treated properly. Unfortunately, if a previous owner's idea of sympathy is a weekly burnout outside Maccy-D's, then your fried and frayed clutch will need replacing. Again, this is another reason why you should be careful about which car you do buy, because things like this start to add up quicker than you can say 'boo-yaka-sha'.

Further along the transmission, a good rebuilt standard gearbox will be able to digest a fair amount of torque – but again, it depends on how it's driven. So if you're a Santa Pod regular then be prepared to really get to know your local gearbox specialist, because there isn't a readily available uprated 5 GTT gearbox. All you can do is strip the box down and get it shotpeened.

When it comes to the diff, it's not a slipper but it should be OK. There have been people who have cooked up something more exotic – ie custom-made limited-slip diffs – but these lead to other problems, such as tight operation under cornering.

Finally, original spec driveshafts are man enough for the job in a tuned car. Although Andy would recommend fitting a new set of shafts if you're building something spicy, because the chances are yours will be the originals. Again, it's a matter of better safe than sorry.

INSIDE AND OUT



Check the sills for grot. Not as bad as a Ford but plastic can hide a lot of drama.

Before we get into cosmetics, this is where to look for rust: below the windscreen and the rear screen there's a small cover that goes over the windscreen rubber, and if that's missing on a neglected car then water can collect there and rot it out.

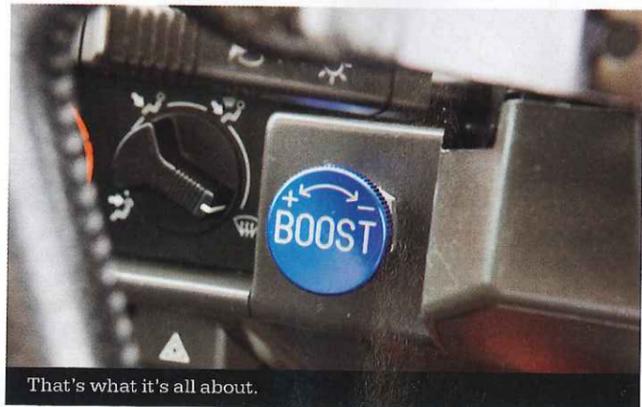
"Also check the sills - they're just something to keep an eye on, although they're not as bad as something like a Ford," says Andy. "Actually, 5s aren't known as a rust buckets. Just look over the body because of the age of them now."

Being a child of the '80s, the 5 GTT was born with a bodykit. Early P1s came with a chunky, unpainted rough textured grey kit, while P2s were colour coordinated, smoother and more aerodynamic. Unfortunately both P1 and P2 (particularly the P1) kits are getting hard to track down. Your best bet is to either buy a car in good nick or to keep an eye out on eBay, because your local Renault dealer will just laugh at you.

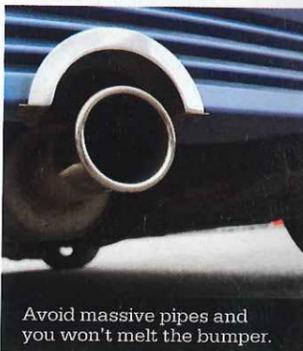
There are plenty of aftermarket kits available, but be careful with regards to these. There's a lot of rubbish out there, which either fractures or doesn't fit carefully.

So if you want pointers on how to give your 5 GTT a subtle, tasteful facelift, visit BBPT's website and look at its motor. Needless to say, BBPT doesn't sell bodykits.

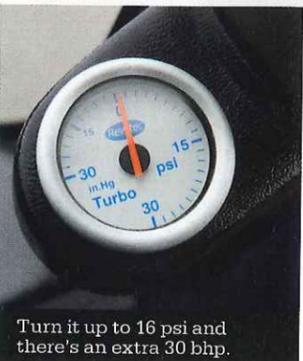
Moving inside, because the 5 GTT is an old Frenchie don't expect BMW levels of quality - its interior isn't going to withstand a nuclear strike. Although trim and switchgear may be light and a bit fragile, this is good news because this is one of the reasons why the car's so lightweight. Still, the chances are you're probably going to strip it all out, cage it and fit bucket seats anyway.



That's what it's all about.



Avoid massive pipes and you won't melt the bumper.



Turn it up to 16 psi and there's an extra 30 bhp.

ENGINE SWAPS

Andy's at pains to point out that BB Performance Tuning doesn't carry out engine transplants on customers' cars. However, that doesn't stop the guys that work there from experimenting.

"One of our current demo cars is sporting a Clio 1.8-litre 16v engine that we've turbocharged, too," says Andy. "On its last rolling road outing it saw 386 bhp and over 300 lb/ft of torque, and it spins the wheels in all the gears. It's pretty lively.

"It's a transplant, which is starting to get very popular, but it's not something BBPT really gets involved with, however, we can supply the turbocharging parts."

Three hundred and eighty-six brake from a junior Cossie with a French accent? Well, if that doesn't inspire you, you really are a lost cause.

WHEELS AND TYRES

The one problem of opting for the 285 mm disc kit is that you can't fit the original 13 inch rim over them. The stock 239 mm disc really is as much as they'll swallow. Still, the good news is that you then have another excuse to buy yourself a new set of 15-inch alloys; the other excuse being that the original Phase 1 (175/60HR13s) and Phase 2 (190/55HR13s) Michelins are no longer available.

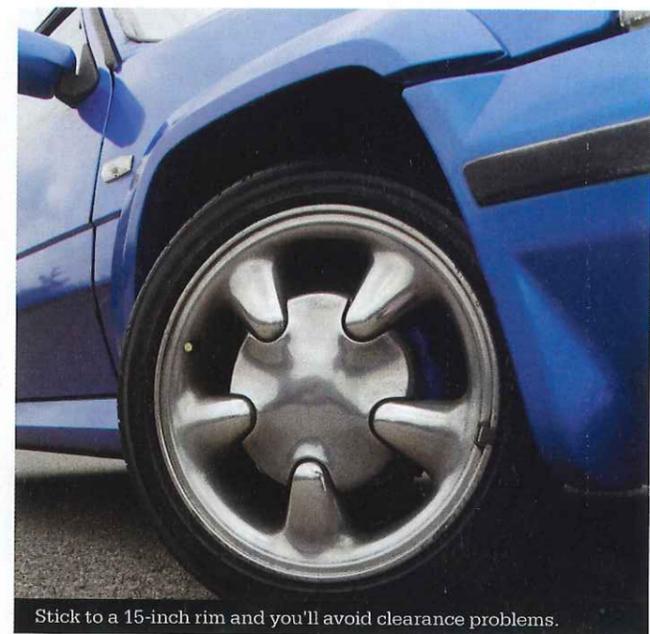
If you're an originality fetishist then a few 185/55R13s are still floating around, but you don't need us to tell you that a smaller footprint equals less grip and an ultimately lower cornering speed. So it really does make more sense to upgrade to a 15-inch rim with a lower profile tyre.

"I personally wouldn't recommend anything bigger than



Original 13-inch Michelins are no longer available.

a 15-inch rim on the 5 GTT. Although there are cars with 19-inchers on, they just aren't very practical," reveals Andy. "Running 16-inch wheels with a 40 profile is probably pushing the boat out, but you're keeping hold of some of the nice driveability."



Stick to a 15-inch rim and you'll avoid clearance problems.



"Upgrade to a 15-inch rim and lower profile tyre"

BRAKES

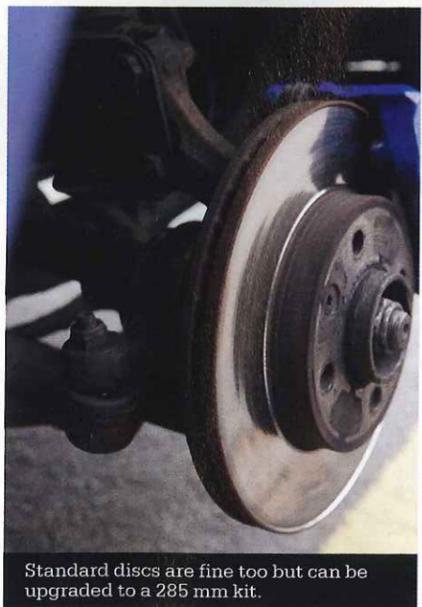


Standard sliding callipers are well up to stopping the 750 kg 5 GTT.

The 5 GT Turbo packs discs all round (vented 239 mm at the front) with single piston floating callipers, which is really rather advanced for a hot '80s supermini. Factor in the car's low kerb weight and even in standard form you've got a car that really knows how to stop hard and make your eyeballs bounce off the windscreen.

Again, neglect means that most of the problems are caused by tired hardware – old brake fluid, worn brake hoses and knackered callipers (pay particular attention to the sliding mechanism). It really is worth taking the time to rebuild the system with either replacement or properly reconditioned parts, along with braided brake hoses for a better-feeling pedal and upgraded pads.

"Back in the day the 5 GT Turbo was known for its good brakes, so make sure everything's working properly," says Andy. "Of course, you can make improvements by changing pad materials and using different discs. Bigger brake conversions are available and there's a good value 285 mm kit, which runs with the standard calliper. It doesn't sound that big, but it's very effective. Beyond that you can upgrade to four-pot callipers."



Standard discs are fine too but can be upgraded to a 285 mm kit.

THIS ONE'S MINE

The 5 you see here belongs to Alex Barker and it's just the sort of thing we like on *Retro Car*: no big bodykits and polished 17s, just a well-specced 1400cc motor (thanks to BB Performance Tuning, naturally) kicking out big power with all the right bits: modded head, uprated gasket, hybrid Garrett T2 blower, uprated intercooler, Group A carb and in-car adjustable boost to a maximum 16 psi.

Rolling on 15-inch Clio rims, the GTT sits on Koni dampers, runs standard brakes and to all intents and purposes looks perfectly standard. As we said, just what we like.

HOW MUCH?

A few years ago values of 5 GT Turbos were at their lowest, but things are now on the up. A realistic value for a nice, clean, standardish car with low to average mileage is around £1500. But don't forget Andy's earlier advice to be very careful, because of the sheer amount of rubbish out there.

CLUB

Renault Turbo Owners Club
www.rtoc.co.uk
www.gtturbo.org/join

TECH SPEC

PHASE 1 RENAULT 5 GT TURBO

BODY
Two-door, front-engined, all-steel monocoque body shell with opening rear hatchback. Length: 141.3 inches; width: 62.8 inches; height: 53.7 inches; wheelbase: 94.7 inches; ground clearance: 4.7 inches; weight: 1830 lb. Fuel tank: 11 gallons.

ENGINE
Transversely mounted, pushrod operated, OHV, 1397cc 'Cléon', chain driven camshaft, two valves per cylinder, Solex 32DIS carburettor, iron engine block, alloy cylinder head, 76.0 x 77.0 mm, five-bearing crankshaft, T2 Garrett turbocharger (initially air cooled on very early cars, subsequently water cooled). Compression ratio: 7.9:1; maximum power (claimed): 118 bhp @ 5750 rpm (84.5 bhp per litre); maximum torque: 122 lb/ft @ 3750 rpm. Maximum speed: 127 mph; acceleration: 0-62 mph in 8 seconds; fuel consumption: 28.6 mpg.

TRANSMISSION
Front-wheel drive, five-speed all synchromesh manual gearbox, hypoid bevel final drive, final drive ratio: 3.733:1 (21.7 mph @ 1000 rpm).

SUSPENSION
Front: independent suspension with coil springs, MacPherson struts and anti-roll bar (front track: 52.2 inches). Rack and pinion steering (turning circle: 38.7 ft).
Rear: trailing arm rear suspension with transverse torsion bars, telescopic dampers, anti-roll bar (rear track: 51.6 inches).

BRAKES
Front: vented 239 mm discs with single piston floating callipers.
Rear: solid disc with single piston floating callipers. Dual circuit with servo assistance.

WHEELS AND TYRES
Cast 5.5Jx13 inch alloy wheels with Michelin 175/60HR13 radial tyres.

BB PT TYPICAL PRICES

Wossner 7.5:1 forged pistons	£500
Adjustable vernier camshaft pulley	£120
Upgraded 1.9 mm racing head gasket	£50
Gas flowed cylinder head with matched manifold ports	£410
High tensile cylinder head bolts	£20
Knife edged and balanced crankshaft	£300
Oil pump refurbishment kit	£70
Piston rings	£60
GT spec performance camshaft	£190
Adjustable 30 mm coil-over kit, Phase 1 or 2	£470
lowering springs	£65
Koni front adjustable dampers	£240

Prices are approximate and include VAT

SOURCE

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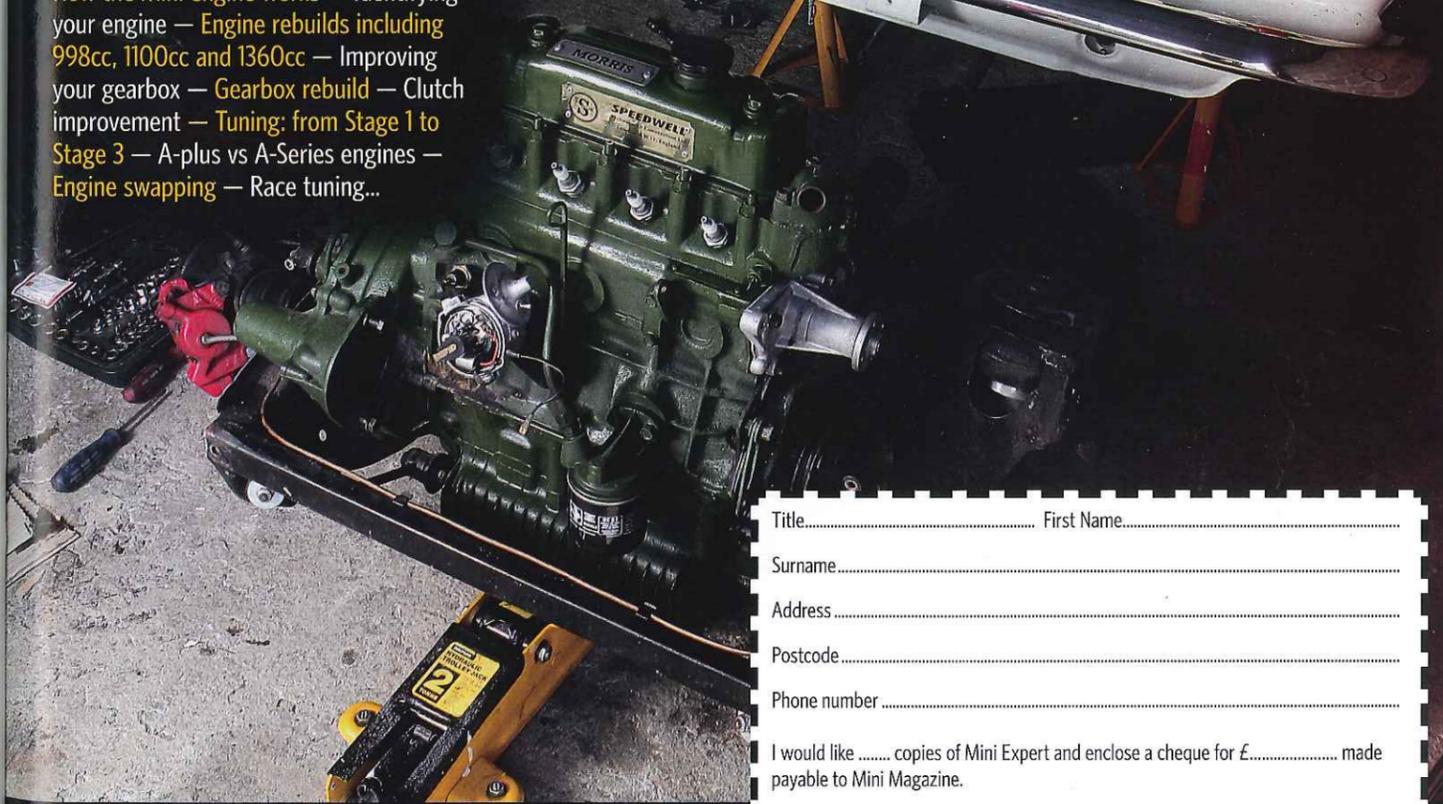
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