

Classic '02

First of the modern BMWs, the '02 is a classic you can drive to work every day. Here's how to find and live with one.

Words: Paul Wager Photography: Total BMW

When every BMW launch brings with it a new piece of electronic trickery, you could be forgiven for thinking that the 2002 is a relic from a different era, but in truth it's the first of the modern BMWs.

Launched in 1966, the '02 range was a leap ahead from the dowdy '50s-style saloons the firm had previously churned out and is closer technically to the early 3-Series than its predecessors.

Wind-up windows, carburettors and 13-inch wheels might seem like relics from the dawn of motoring compared to the current BMW line-up but the 2002 shared the same place in the market as a current 3-Series. Laugh if you like, but think about it: back in '66 the opposition was still using

leaf springs and pushrods, while the BMW was cutting-edge with its overhead camshaft, alloy cylinder head and disc brakes.

Once the fuel-injected tii was launched and then the dramatic 2002 Turbo, BMW was convincingly ahead of the pack in the technology stakes too – all of which makes comparing the '02 to a contemporary Ford or Vauxhall much like comparing a new 335i to a Proton.

Yes, they rusted but then all cars of that era rusted and to give it its due, the BMW was rather better made in the first place, which is why they're still around in reasonably large numbers in Europe. Cost made them fairly exclusive in the UK, but today an '02 still makes a very usable everyday classic. The more basic 1502 and 1602

models will never set the world on fire, but a nice 2002, a 2002ti or even tii if you can find one is something you can use every day and we know people who run them as their only car, clocking up 20,000 miles a year quite happily. Here's what's involved in buying and owning one.



ENGINES

Back in the '60s, even a 1600 motor was regarded as being a pretty big engine, so the 2-litre was a serious piece of kit, especially in a car weighing under a tonne. The engines are all based on the same iron block, alloy head four-cylinder overhead-camshaft design and by the standards of the day they're bulletproof. Note that we said by the standards of the day, though: they'll do well over 100,000 miles if they've been looked after, but don't expect to cruise to the 250,000 miles you can expect from a modern BMW motor.

Apart from any obvious problems like excessive smoking and rattling, the most major problem you're likely to encounter with an '02 engine is a cracked cylinder head, generally the result of a lack of corrosion-inhibiting anti-freeze which allows the water passages to block up and the head to run hot.

The car of course featured the mechanical Kugelfischer PL04 fuel injection which brings its own problems, so don't let anyone

mess about with it unless you're sure they know what they're doing. 2002 specialists Jaymic can provide an information sheet on setting up the system and it's also covered in Mike Macartney's BMW '02 Restoration Guide. The system is elegant in its simplicity and providing the pump is working correctly then most running problems can be cured by setting it up correctly. Cars which won't start well from cold most likely have a failed timer relay which controls the separate cold-start injector, while hot starting problems can be caused by a failed thermo-time switch telling the engine it's cold when it isn't.

Some owners simply wire the cold-start system up to a simple switch and use it like a manual choke. If the car simply won't start and also has a dead instrument cluster then suspect a blown fuel pump fuse.

Carburettor cars need the in-line fuel filter replacing regularly and if it smells of fuel inside then check the plastic pipe leading around the offside.



If a single-carb engine runs badly and doesn't seem to respond to tuning, then the throttle spindle may well be suffering from play – the throttle bodies have a tendency to wear and fixing the problem involves machining and a new spindle. An upgrade to twin carbs is probably cheaper.

High-mileage engines can be a bit rattly from the top end and if you've run out of adjustment on the valve clearances, then the rocker shaft and rockers have probably worn, while a little smoke on the overrun is nothing unusual from a high-mileage engine and just means the valve stem seals are past their best.

The distributor bearings can also wear, making it difficult to set the timing accurately, but upgrading to electronic ignition can generally cure this.

Remember, these are old-school engines so there are no service lights here and specialists will recommend oil changes every 5000 miles.

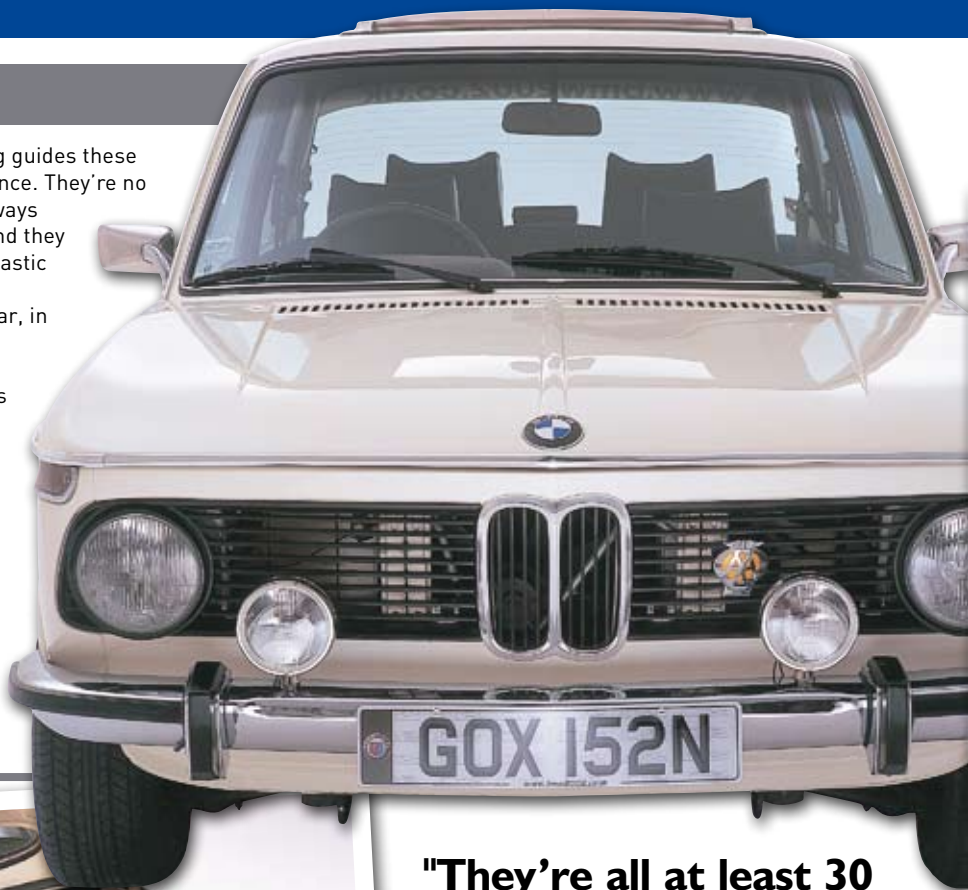


"This engine is essentially the same as the one which made 1500 bhp in F1 racing, so it's ripe for a bit of old-school tuning."

BODY AND INTERIOR

We don't often cover rust issues in Total BMW buying guides these days but the '02 range makes up for it with a vengeance. They're no worse than any other car of their time and in many ways far better, but they're all at least 30 years old now and they come from an era when things like mud traps and plastic wheelarch liners just weren't a consideration.

You might still get lucky and find a non-restored car, in which case you need to inspect it all pretty carefully. The box sections under the radiator can rot out from the inside, as can the sections behind the headlamps and indicators, while the inner wing where it meets the A pillar and the sill is another favourite. Blocked drain holes can cause rust around the heater box on the bulkhead and the sills can also rot out too, of course. The cars tend to get jacked up under the front chassis rails, so check them for rot and also the rear subframe and box sections above the driveshafts. Have a look in the boot and check the suspension turrets, the inner wings and the spare wheel well... oh and the bonnet, boot and doors will rust around the edges too. As you've probably guessed, it's simpler and cheaper to rebuild a tired engine than it is to resurrect a rusty '02 shell.



"They're all at least 30 years old now and they come from an era when things like mud traps and plastic wheelarch liners just weren't a consideration."



HISTORY

The '02 range was initially conceived as a smaller two-door version of BMW's 'Neue Klasse' saloons and was launched as the 1600-2 (the '2' signifying two doors) in March 1966 with the 1573cc '1600' engine, joined by a twin-carburettor version badged as 1600ti in 1967.

Rumour has it that the 2002 was born when two BMW executives (one of them Alexander von Falkenhausen) decided entirely separately to have the 2-litre version of the engine dropped into their company 1600's. Each was unaware of the other car until they both turned up in the workshop one day. The two men decided to put their idea to the Board and the rest is history, with the 2002 unveiled in 1967. Their cause was helped, as ever, by BMW's desire to expand in the all-important US market: buyers loved the 1600-2 and were crying out for a model with more performance, but the twin-carb 1600 couldn't meet the US emissions requirements, whereas the 2-litre had already been approved for use in the 2000CS Coupe.



In 1971, the familiar 1602 and 2002 badging was adopted. The Baur convertible, automatic gearbox options and the hatchback Touring were launched at the same time, but the real news was the fuel-injected tii. Using the mechanical Kügelfischer injection, it knocked out 130 bhp and had the pace to worry a modern hot hatch.

The range was facelifted in 1973, losing its trademark round rear lights in the process and gaining a new plastic front grille and improved trim levels. The convertible was available in right-hand drive from February and Europe's first production turbo car, the 2002 Turbo was launched at the Frankfurt motor show. Production remained pretty much unchanged until 1975 when the range was discontinued to make way for the first 3-Series, although a bargain-basement 1502 was produced from 1975 to 1977 to provide an entry-level model for the BMW range.

You'll see the different models referred to by enthusiasts as pre-'71, Model 71 and Model 73, the latter distinguished by its square rear lights.



SUSPENSION

Drive one of these hard and you won't be surprised to find it handles much like an early 3-Series, complete with the splayed-out rear wheels when it's heavily loaded. A good one should feel nice and tight without any stop and clonks, but if it feels tired then it's a simple set-

up for DIY with basic tools. Spax is even offering a complete kit of springs and dampers for '02 models at under £500 which lowers it a useful 50 mm too.

Over-heavy steering (check the tyre pressures first!) can be caused by enthusiastic amateurs playing with the adjustment on the steering box.

BRAKES

Seized calipers and failing servos are your biggest enemy here but if it's all in proper working order then the '02 brakes are really pretty good. The tii ran a twin-servo set-up which can be tricky to troubleshoot but problems are more likely on little-used cars.



TRANSMISSIONS

The gearbox and differential generally don't cause trouble as long as they've got enough of the right oil inside them. There's none of that 'sealed for life' nonsense on these cars, so check the levels at every service.

A noisy differential is annoying but will probably carry on perfectly happily for years, so it's worth trying one of the

popular oil additives to quieten it down. Clonking when taking up drive can be caused by a failing rubber differential mounting, while a worn propshaft bearing will cause a rumbling from underneath. If the gearlever itself seems to have excessive side-to-side movement then suspect the rubber mounting blocks for the linkage.

MODIFYING

The 2002 really doesn't need any modifications to keep up in the cut-and-thrust of modern traffic, but 21st-century refinements like electronic ignition upgrades can make a big difference. One of the biggest improvements which can be made is to fit the five-speed gearbox from the E21 3-Series. It means you'll need a specially shortened propshaft but it makes a big difference if you use the car on the motorway.

Remember this engine is essentially the same as the one which made 1500 bhp in F1 racing, so it's ripe for a bit of old-school tuning. Cylinder head porting,

twin carbs, uprated camshafts and exhaust systems are all cost-effective mods and 150 bhp is easily attainable.



THE TURBO



"Every time I take it out it costs more money," laughed Richard Stern, Chairman of the '02 Register, when we asked him about the running costs of the Turbo. This is one model which really requires you to do your homework before buying it and the parts availability is nothing like as good as the regular '02 models. Richard points out that front panels, steering racks, gearboxes, front discs and even the turbocharger itself are all either no longer available or prohibitively expensive. You can't argue with 130 mph though.

"We know people who run them as their only car, clocking up 20,000 miles a year quite happily."



SERVICE AND PARTS

This is probably the biggest issue you'll face if you buy a car which is anything less than show condition. According to BMW, parts availability for the '02 range is reckoned to be around 90% thanks to the impressive Mobile Tradition operation, but when the '02 Register recently tried to compile a definitive list of what was and wasn't available they found it wasn't a straightforward task. Bumpers are tricky and rear panels are discontinued, along with original seat fabric, limited-slip differentials, late model kidney grilles, door mirrors and a few other bits but BMW can still supply a remarkable amount for the cars. Body panels for the hatchback Touring models and the convertibles are tricky to source now, but specialists like Jaymic here in the UK and



Walloth & Nesch in Germany are on the case with remanufactured parts, as is BMW Mobile Tradition. As ever, don't forget the cost of shipping when you're buying parts from Germany and remember, Norfolk-based Jaymic has been involved with BMW '02s for longer than anyone here can remember.

THE FACTS

2002 (1968-75)

Engine	1990cc four-cylinder 100 bhp at 5500 rpm 116 lbf.ft at 3000 rpm
0-60 mph	13 seconds
Max Speed	108 mph

2002 tii (1971-75)

Engine	1990cc four-cylinder 120 bhp at 5800 rpm 131 lbf.ft at 4500 rpm
0-60 mph	8.2 seconds
Top Speed	118 mph

WHAT TO PAY

Even the experts tend to agree that '02 prices are all over the place, with pristine examples often selling at similar prices to restoration projects. The tii is the one everyone wants and it's one of the most usable '02s too, but they don't come up every day, which makes the standard-issue 2002 the easiest to find. You'll see cars advertised at £8000 to £9000 but according to the 2002 Register, £4000 should be enough to secure a good usable example, with £5000 enough for a nice tidy car. Budget on spending more for a tii, but take the '02 Register's advice seriously: "If you find a good one, snap it up even if it means going over budget – don't think you can restore one easily!" And remember, the pre-'73 cars get free road tax too.

Turbos are of course a different story entirely and their values have shot up in recent years compared to other '02s.

£1000

A complete but tatty project. Get the welder out...

£3,000

Starting point for a sound, usable car. Will probably need some cosmetic work and general tidying up but not a full-on restoration.

£4,000

Take your time and you should be able to find a tidy 2002 at this price, probably even a pre-'73 round rear light example. Expect either an original car or an older restoration. Get lucky and you might even find a later (square lamped) tii at this price too.

£5,000

Expect a nicely restored car at this price. You should be able to bag a good tii.

£8,000

Expensively restored and tastefully modified 2002s come in at this price, plus nicer tii's, convertibles and Targas.

RESOURCES

Jaymic
01263 768768
www.jaymic.co.uk

Walloth & Nesch
www.wallothnesch.com

Cooks Ferry Engineering
020 8804 2002 www.cooksferry.com

Fritz's Bits
01823 674459
www.fritzsbits.co.uk

BMW Car Club 2002 Register
www.bmw2002.co.uk

2002 Reading

- The BMW 02 Series, The Cult Car (BMW Mobile Tradition)
- The BMW 2002: A Comprehensive Guide (Taylor & Macartney)
- The BMW 02 Restoration Guide (Mike Macartney)



"Drive one of these hard and you won't be surprised to find it handles much like an early 3-Series."