



MODS AND ROCKER COVERS

Does tuning a hot hatch intensify the fun or burn it to a cinder? **Adam Towler** finds

PHOTOGRAPHY STAN PAPIOR

Cast your mind back to the turn of the millennium. The undisputed hot hatch king – the Peugeot 306 GTI-6 – has just deftly oversteered off to the great car park in the sky. With a fizzing 167bhp from its naturally aspirated 2.0-litre twin-cam engine and six forward gears, it has convincingly held the high ground in the hot hatch performance arena. But just two years later arrives the 212bhp Ford Focus RS and the 210bhp Seat Leon Cupra R, and an all-new breed of hyper hot hatch is born, mutating like a freak organism

over time into the giant-killers of today; 250bhp has become the minimum requirement in this class.

So we've gathered together some tuned examples of the current breed to show what is possible and analyse them against the clock and along typically awkward B-roads.

The Mk3 Ford Focus ST is from Buckingham-based Superchips, a company that has existed in the engine management tuning business since the 1980s. This Stage 2 upgrade (costing £1446) features a full Miltel 76mm exhaust system, from the turbo back, including a high-flow →



The Superchips Focus ST has the widest and most usable powerband



Mégane is easily the most fun to drive on track



Discreet LEDs sit in the Mégane's air dam



The 3's lower lighting looks less cohesive



VXR-R has purposeful-looking air intakes



The Focus's front end sports a clean look



Tailgate spoilers are de rigueur on (clockwise from top left) Mazda 3 MPS, Mégane 250, Astra VXR-R and Focus ST



The 3 MPS feels vague compared with its rivals



This Focus ST is compromised by its non-brand tyres



The suspension modifications on the Astra are effective

← sports cat and a replacement air filter. The mapping is implemented by the firm's Bluefin hand-held computer, which allows customers to switch between maps themselves and receive updates over the internet. Superchips claims a new power peak of 292bhp (up from the standard car's 247bhp) and 332lb ft at just 2115rpm.

The Mazda 3 MPS hails from BBR GTI in Brackley, but because of the unavailability of BBR's demonstrator vehicle, we've kindly been lent a customer's car. This is a Stage 2 conversion, featuring a remap, high-flow exhaust downpipe and sports cat and higher-flow fuel pump and inlet hoses, along with a rebuilt and optimised turbocharger. It is the only car here to have received attention to the blower, and coupled with the big, brawny characteristics inherent in the 2.3-litre MZR engine (which

also forms the basis of the Ford's smaller Ecoboost unit), the claims are 350bhp and a wild-sounding 368lb ft.

However, this car was booked in for a larger turbocharger (and full suspension upgrade) after we'd driven it and, in BBR's opinion, the front-mounted (as opposed to top-mounted as standard) intercooler fitted by the owner (with its larger piping) hurts the claimed outputs and throttle response when combined with a standard-sized turbo. We'll see. As is, the engine mods cost £2890.

K-Tec Racing's Renault Mégane RS 250 follows the standard route of remap coupled with a replacement air filter and new cat-back exhaust (although the cat may have been removed altogether on this example), but also features a new intercooler. The claims are 295-300bhp and 320lb ft, with

as much as 80lb ft more than the standard car at 2600rpm. The price, including fitting and a year's warranty, is £1691 for the above. Unfortunately, K-Tec's demonstrator, with its Nitron adjustable coil-over suspension among other upgrades, was unavailable, so we're using a privately owned car with the above modifications plus 19-inch alloy wheels and Eibach lowering springs.

Finally, there's the Thorney Motorsport Vauxhall Astra VXR-R, a limited edition of 100, although tuning parts are available separately as well. On the engine side, there's a three-inch system with sports cat, a replacement panel air filter and a remap, giving 320bhp and 310lb ft. Thorney has kept the standard switchable dampers but fitted its own springs and comprehensively tweaked the suspension geometry,

changing the factory 20-inch wheels for some lighter versions. Perhaps most important of all, the VXR-R is available from any Vauxhall dealer, with a lifetime warranty. You'll pay £3749 for the privilege.

IN A STRAIGHT LINE

As much as it is the destroyer of clutches, gearboxes and front tyres, there's no denying that a 0-60mph launch provides a barometer of acceleration that is universally understood. Nevertheless, with an even split between privately owned vehicles and company demonstrators, plus a greasy, near-freezing runway surface, it seems neither fair nor particularly revealing to try to spring this quartet off the line against the clock.

So we've decided to stroll away from rest and then give it the lot →

TUNED VS STANDARD



The standard Vauxhall Astra VXR is a hard car to get off the line – as shown by the Autocar road test 0-60mph figure of 6.4sec versus the manufacturer's claim of 5.9sec – but given the figures from this test, the Thorney Motorsport car would seem to deliver on the performance promise inherent in the standard car.

Despite being the weakest of the modified cars here, it murders the standard VXR both through the gears and over the in-gear increments. It's nearly a second quicker to 100mph and four seconds quicker to 140mph. Best of all, the delivery is more progressive and so much more exploitable on the road, and it sounds much more refined yet purposeful from within the cabin, losing the standard car's breathy, Darth Vader-like induction roar.

It's also amusing how slow the standard VXR feels and actually is against, say, the BBR Mazda. By the time the rapid 3 MPS has hit 150mph, the VXR has reached only 135mph. As for on-road flexibility, the standard VXR is over a second slower from 30-50mph in fourth than the Superchips Ford Focus ST. In truth, all of these cars make the VXR – hitherto a terrifically brawny hot hatch – feel rather meek and woolly.



Mazda accelerates the hardest at three-figure speeds

VXR-R isn't quite as quick as the BBR Mazda 3 – yet



← in second gear before 20mph. From there, it'll be flat out through the gears until the spectre of the end of the runway looms too large to be bearable any longer – hopefully at 150mph. On top of that, we'll add in-gear runs over set increments (30-50mph, 40-60mph, 50-70mph) in third, fourth and fifth, to get an idea of real-world flexibility.

First up is the Focus. There's more of the new car's offbeat snort filling the cabin, but it's not so raucous as to be irritating. Despite our leisurely launch, introducing all that torque

in second gear has the front tyres on the cusp of wheelspin, but 30-70mph is dispatched in 4.9sec, a couple of tenths up on the Autocar road test figures, and it is nearly half a second quicker from 80-100mph before snagging a genuine 150mph.

However, the in-gear figures prove the most startling. All the increments in third gear are nearly half a second quicker than those of the road test car, and the unmatched linearity of the figures across fourth and fifth shows that the ST has the widest and most usable powerband.

After feeling the force of the Mazda's acceleration from the driver's seat, it's a shock to discover that it takes until 100mph for it to overhaul the Focus. That's partly a result of the Ford's brazen low-revs delivery, but more so because, as currently configured, the 3 MPS simply has too much turbo lag. No matter how quickly you change gear, there's a frustrating moment of soft response before the turbo is blowing hard again.

But with fewer gearchanges required at three-figure speeds, the Mazda is off and away like a greyhound and comfortably exceeds 150mph. That it reaches this speed nearly five seconds before the growling Ford says it all. Third-gear increments are as quick as anything, but higher gears show the laggy side of the delivery, particularly the yawning 30-50mph time in fifth.

The K-Tec Renault is a savage

thing. The F4RT engine has always had a uniquely nasally voice, but it's brought to the fore here whether you like it or not. It's the quickest car to 100mph, which makes it even more of a surprise that it fails to reach 150mph. It also scores the lowest in-gear increment time: 2.3sec for 30-50mph in third, which translates as awesome and immediate overtaking potential. The figures in fourth and fifth show that, ultimately, it has the legs on the Ford on full boost, but not the same freakishly wide window of response.

On to the Astra VXR-R, which, because it's still in development, is not yet giving the sort of figures promised, its creator believes. It's close to the Ford and Renault until 60mph, and even holds a lead over the Mazda, but from then on it falls steadily further behind, only just reaching 140mph before our emergency braking intervenes. It →



The Focus (blue) and 3 (far right) run on 18s, the Astra (red) 20s and the Mégane 19s

Even the Astra's firmest suspension setting is now usable on the road



Fast Ford requires judicious use of the throttle pedal

also has the slowest in-gear times, whatever the increment. However, it absolutely demolishes the standard VXR we've brought along for comparison (see sidebar, p43).

ON THE ROAD

In one sense, trying to compare these hatches on Leicestershire's serpentine back roads, in the dark and with temperatures around freezing, seems a futile exercise. And yet... these are the typically wintry conditions that would have suited hot hatches of old, not to mention the now extinct 4x4 rally special.

The Ford is a maniac. It's shod with some non-brand tyres that completely scupper its chances of providing rapid cross-country pace in these horrible conditions. It wants to wheelspin everywhere, and

the driving experience centres on just how deft you can be with your right foot. The new mapping allows accurate modulation of the throttle but there's no denying that the torque comes in very rapidly. How much of this unruliness is down to the tyres and how much is because Ford's sub-RS hatch does without RevoKnuckle struts and a limited-slip diff is hard to say. Nevertheless, the ST is an almost embarrassingly effective overtaking device, as our in-gear times proved.

The Mazda is similarly wayward, if for different reasons. The limited-slip diff does the best it can to contain the startling torque, but in these conditions it's sniffing from verge to centre line like a cartoon bloodhound and requires a firm hand. The 3 MPS was far from our favourite hot hatch when new, but with 50,000 miles



This 3 MPS is good for 335bhp and 344lb ft



The VXR-R is hiked to 320bhp and 310lb ft



There's 292bhp and 332lb ft in the Focus



The Mégane flexes 300bhp and 320lb ft



Focus builds on a solid base, but we'd take the Mégane



under its wheels it feels spongy and vague, dominated by the power. Having tried BBR's full-house demonstrator with Koni dampers, I know that it's a massive improvement on Mazda's offering but, as is, this car is more about accelerative thrills.

The Renault is even more aggressive than usual with this braying, immediate grunt on tap. That the car handles it, even relishes it, won't surprise anyone familiar with the base car's talents. It's a firm, uncompromising car, a good deal removed from the kind of experience sought by the average Golf GTI buyer, but it was also easily the most fun to drive around Bruntingthorpe's simple circuit and is very effective out here on the road.

The biggest surprise, though, is the VXR-R. A 40mm suspension drop sounds like the last thing the Astra needs, but the revised spring rates work well with the dampers and even the firmest setting is now usable on the road. The new mapping has removed the standard car's petulant throttle response, so you can actually drive with some sensitivity in these slippery conditions. I leave it in Normal and the Astra flows along nicely, damping out the worst of the sudden dips in the road and feeling really biddable. It's not as invigorating to drive as the Renault, just as the standard car isn't, but right here, in these conditions and to get home in, it's very appealing.

So what have we learnt? A used Mazda 3 MPS is a cracking basis for creating a 160mph-plus hot hatch; don't fit naff tyres to a car that can breach 150mph with ease; the Mégane RS is even better with a bit more squirt; the Astra VXR has potential... all these things and more.

And yet, for all their speed, is this type of hot hatch heading into a developmental cul-de-sac? A humbly shod, year-2000 standard Subaru Impreza Turbo would have outrun them in these conditions, and although they're faster, they don't necessarily offer the entertainment of their forefathers with half the power. And now, with the arrival of the £30k BMW M135i – which is appreciably faster than even these tuned cars – the high-power/high-cost hot hatch is under significant pressure from above. Nevertheless, buy used and tune intelligently and it's hard to match the package of performance and practicality on offer here. **A**

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	K-Tec Racing Renault Mégane RS 250 PP2	Ford Focus ST Superchips Stage 2	BBR GTI Mazda 3 MPS Stage 2+	Vauxhall Astra VXR-R by Thorney Motorsport
				
VERDICT	Further sharpens an already aggressive car; remains the benchmark	Immense, instant torque pushes standard ST chassis to the limit	The most powerful car here, but needs chassis upgrades to go with it	Engine lacks bite of others here, but chassis tweaks very worthwhile
RATING	★★★★★	★★★★☆	★★★★☆	★★★★☆
Price	£1691 plus standard car	£1446 plus standard car	£2890 plus standard car	£3749 plus standard car
30-70mph	4.7sec	4.9sec	5.0sec	5.3sec
70-100mph	6.0sec	6.5sec	6.0sec	7.4sec
100-140mph	18.8sec	18.1sec	17.4sec	25.0sec
30-150mph	na	39.7sec	35.8sec	na
30-70mph in 3rd	4.8sec	5.1sec	4.9sec	5.5sec
30-70mph in 4th	7.2sec	6.8sec	7.0sec	7.6sec
30-70mph in 5th	10.7sec	8.8sec	11.1sec	10.8sec
Economy	na	na	na	na
CO₂	na	na	na	na
Kerb weight	1387kg	1362kg	1417kg	1475kg
Engine layout	4 cyls in line, 1998cc, turbo, petrol	4 cyls in line, 2000cc, turbo, petrol	4 cyls in line, 2261cc, turbo, petrol	4 cyls in line, 1998cc, turbo, petrol
Installation	Front, transverse, FWD	Front, transverse, FWD	Front, transverse, FWD	Front, transverse, FWD
Power	300bhp	292bhp at 5839rpm	335bhp (usual Stage 2: 350bhp)	320bhp
Torque	320lb ft	332lb ft at 2115rpm	344lb ft (usual Stage 2: 368lb ft)	310lb ft
Power to weight	216bhp per tonne	214bhp per tonne	228bhp per tonne	217bhp per tonne
Specific output	150bhp per litre	146bhp per litre	148bhp per litre	160bhp per litre
Compression ratio	8.5:1	9.3:1	9.5:1	9.3:1
Gearbox	6-spd manual	6-spd manual	6-spd manual	6-spd manual
Length	4299mm	4362mm	4510mm	4466mm
Width	1848mm	1823mm	1770mm	1840mm
Height	1435mm	1484mm	1460mm	1482mm
Wheelbase	2636mm	2648mm	2640mm	2695mm
Boot capacity	456 litres	363 litres	300 litres	380 litres
Fuel tank	60 litres	55 litres	60 litres	56 litres
Real-world range	na	na	na	na
Front suspension	MacPherson struts, coil springs, anti-roll bar	MacPherson struts, coil springs, anti-roll bar	MacPherson struts, coil springs, anti-roll bar	MacPherson struts, coil springs, anti-roll bar
Rear suspension	Torsion bar, coil springs, anti-roll bar	Multi-link, coil springs, anti-roll bar	Multi-link, coil springs, anti-roll bar	Torsion beam with Watt's link, coil springs, anti-roll bar
Brakes	340mm ventilated discs (f), 290mm discs (r)	320mm ventilated discs (f), 271mm discs (r)	320mm ventilated discs (f), 280mm discs (r)	355mm ventilated discs (f), 315mm discs (r)
Wheels	8.25Jx19in	8.5Jx18in	7.5Jx18in	8.5Jx20in
Tyres	235/35 R19	235/40 R18	225/40 R18	245/35 R20