



# STREET FIGHTER

powerful mix of Eighties brawn and modern tech, John Mitchell's 600hp

**F**teen years. For most of us it seems a crushingly short lifespan for a car, but that's how long manufacturers expect their latest models to trudge up and down motorways, haul luggage and crawl through commuter traffic before retiring as scrap. So when you picture a single owner spending almost twice as long perfecting their project, changes-of-plan feel like an expected part of the process. And sometimes the biggest U-turns arrive with a whimper, instead of a bang. "I blew a hole in the top of the supercharger coming back from Stafford Hall eight years ago," says John Mitchell, recalling what had already been 20 years of hard work taking an unexpected dive south. "I wasn't even going full chat at the time, just pulling up to some traffic lights at about 30mph, and I heard this 'pop' under the bonnet. That was it - metal fatigue had frayed it off. So I decided I'd go turbo instead, and take on all the work that came with it."

We're not talking bolt-ons and a remap here. John isn't one for taking the easy route - actually, his professional reputation is quite the opposite. Bought as a daily driver, the Corrado has spent almost half its life as a sort of development mule for the products and services he offers through his own business, John Mitchell Racing (JMR). So there's been no room for cutting corners and, with a healthy throughput of tuned Volkswagen Group products to keep him busy, evolutions don't come quickly. That said, it's barely the same car it was last time it put tyres on tarmac.

Some of the ideas here predate its above-average ownership period. Having grown up

around fast Fords, John swapped Volkswagen Audi while working at the biggest dealers in the 1980s. He couldn't have had a better idea. This was a crossover period for GTIs and, as one of the country's biggest dealers, he offered a chance to drop-down Group B engines. The biggest influencer rolled in in 1989 and stopped him in his tracks. "We had one of the very first Volkswagen showrooms because we were a dealer, and I fell in love with the shape of the car straight away. Unfortunately it wasn't a drive, the 16-valve wasn't available. I saw a similar engine in the rumours of a supercharger would address the final points on owning a G60. It was one almost by accident."

It was keeping some of the time. An early UK-spec Corrado damaged by its first owner was being sold on to a specialist as part of a job lot. The price was only too happy to offload contacts in the trade, it was a G60 ownership back in 1990.

However, it didn't quite put it back to stock, but I was thinking I could get more out of it. So I started tuning. I needed to take a different approach. I needed a 16-valve G60 instead. It was that engine to get to the



JMR now offers 16-valve G60 engines almost off the shelf, but the prototype was a seemingly unending process of trial and error. The Corrado started out with a supercharged MK1, lifted from a Mk2 GTI, later fitted with a 9A bottom end to raise capacity to 2.0 litres. It's not a straight swap by any means: the G60 breathes through the head, the 16-valve through the block, requiring a complex breather system to avoid pressure buildup in the crankcase at the top end of the rev counter.

Still not quite getting what he wanted out of it, version three was based on a full 9A engine with stronger internals and KR cams, which John says were a near perfect profile for a G60. But it took custom-made cams and alterations to the compression ratio, needed to make up for the G60's relatively limited air flow, before the coupe cracked 300hp and offered the durable, tractable recipe that he's been providing to customers ever since. As we said, no easy miles here.

"It's a great little unit; they sound fantastic. They go really well, and they blend the best of the G60's low-down torque with the high RPM

potential of a 16-valve. The trouble is, of course it does hinge around that G60 which is probably not the strangest 'charge' to go with if you want to suit the car a bit," he says.

"Geoff [Everett] who founded AWD, always said mine was a great engine but wasted on the charger, and told me it would never go as well with a G60 as it would with a turbo. So partly in homage to him, and partly out of curiosity, I decided to follow his advice when the charge eventually let go."

That learning curve paid dividends when it came to replacing the weakest links in the chain. The rebuilt 9A is forced by a Garrett GTX turbo, perched on top of four equal-length tubular manifold runners at the back of the engine bay, while the OMEGA 710 ECU enabled him to upgrade to a modern coil-on-plug ignition setup, mounted in a custom-made rocker cover and operating off a cam sensor where the distributor once was. This also offered the chance to push the envelope with the induction system, developed in collaboration with Mike at Ansey, and the solution won't quite what he was expecting.

"I wanted an engine that was as responsive as possible, and I liked the idea of running one throttle valve per cylinder," he explains. "But when we were running it on the rollers we found it was very snappy. As a quarter mile car or an all-out track machine it would have been fine, but we had to tame it down for the road. We're still using the plenum with the air horns all set in underneath, but we've gone with a single Jersey throttle valve on one side. So it still benefits from the fantastic airflow of that throttle body concept, and it works supremely well."

The Corrado's extended downtime offered plenty of space to consider the best possible transmission setup for the liked power output. It's making use of the coupe's larger central tunnel with a Haldex-based system from a Mk1 TT, but systematically re-designed around John's needs. The Golf Rallye rear beam is adopted not only for the Haldex differential, but it's also fully adjustable to avoid excessive camber at low ride heights, while the TT's prop shaft features CV joints instead of the rubber 'donut' couplers fitted by Audi. These offer more movement and produce fewer vibrations when accelerating hard.



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## CHANGE OF IMAGE

Proof that there's no chance of this project standing still, the Corrado has changed again since our photoshoot. Working with Image Wheels, John has swapped the massive spacers for a custom centre-lock conversion for these gold-centred 9x16s.

It's the finishing touch having got the chassis setup spot on with the Borbetz.



having super-light steering at high speed. So we're making it speed-correlated – it'll wind off the assistance as you get faster, then cut in again as you slow down. It will be a genuinely engineered system, instead of having a sledgehammer to crack a nut."

That's an interesting take for a process born out of the supposedly simple observation that the 16-valve Corrado couldn't quite cut it in the performance stakes. Quick and grippy enough to chase down genuine Group B machinery, let alone the roadgoing versions, it's got all the character of a 1980s supercar but with the day-

to-day usability of something modern. And with a taste for overcoming macro-level engineering issues to get the most out of it, we'd put money on this one having at least another automotive lifetime's worth of fine tuning before he downs tools completely.

"If you don't do it exactly right then it just doesn't deliver the same amount of satisfaction and you'll be back in there at some point making it good," says John. "So the best way is to just do it right the first time, and if it takes a long while, then so be it. It's not life and death, and it's always worth the hard graft in the end." ■



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