

ASTRA VXRS

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TWIN TURBOS

They may have started life as two run-of-the-mill Astra VXRs, but after falling into the hands of Mark Watts of Courtenay Sport fame, their personalities have taken on an altogether more menacing twist...



When it comes to hot hatches, it's pretty much common knowledge that the Astra VXR is no slouch.

Packing 240bhp from the factory, even in standard trim, it's a seriously potent machine – not only on the roads – but also when taken to the track. However, that's not to say that it can't be improved upon, especially if your name is Mark Watts and you happen to work at a certain Norfolk-based Vauxhall tuning company called Courtenay Sport.

As anyone who's read this magazine before will no doubt be able to attest, Courtenay Sport are one of the big boys of the Vauxhall tuning scene and, as an employee, it would be practically blasphemous not to at least own a Vauxhall, and almost downright sinful not to modify it. Luckily Mark has two of Luton's finest, and has blessed each one with a series of inspired mods to keep on the right side of the Vauxhall tuning gods.

"Working here it's pretty much impossible not to tune your

Vauxhall," laughs 42-year-old Mark when we meet him and his pair of performance enhanced Astras at Courtenay Sport HQ in North Walsham, Norfolk. As the general manager of the firm, Mark likes to lead by example and has put together both of these cars to give himself the best of both worlds – a seriously rapid fast-road car for everyday use, and a stunningly capable track car for when he wants to unleash his devilish side at the weekends.

"The silver car was the first VXR I'd owned," Mark says. "I bought it back in October 2010, after I sold my Mk4 Astra 2.2 SRI. I'd wanted one for a while, but the prices were still pretty high back then, however this one came up for the right price at the right time, so I snapped it up."

POWER UP

Having already got an immaculate VX220 tucked away in his garage, Mark bought the silver VXR with the intention that it would become a daily driver and the two-seater be kept for duties at the weekend.

However, after driving the stock VXR around for just two months, the desire to tune it was simply too strong, leading Mark to open up the company catalogue and start plundering the parts bin for some power upgrades.

"As the car was still planned to be a daily, I didn't want to go too



OWNER MARK WATTS

JOB General Manager at Courtenay Sport

AGE 42

FIRST VAUXHALL Nova 16 GTE
FAVE VAUXHALL At the current time it has to be the Blue Astra VXR Sprint, for track. However my VX220 Turbo was a fantastic car and so was my first Nova GTE Turbo, I've had so many Vauxhalls it's hard to pick an out and out favourite.

WHAT ARE YOU DOING TO THE CAR NEXT? Plenty more track days for the blue Astra – the silver one may make way for another project.



ASTRA VXRS

Ko6 hybrid turbo helps the blue VXR make a very healthy 335bhp



It may be track-ready, but this is still a very nice looking Astra



Carbon diffuser is very cool



Mark's retained the interior trim so it doesn't feel like a stripped out buzz box



You really can't beat a set of Recaro Pole Position seats

TECH SPEC

ENGINE

2-litre, 4-cyl, 16v Z20LEH, Courtenay Sport bespoke ECU remap, Courtenay Sport VXRacing intercooler with 60mm pipework painted stealth black, Courtenay/Klasen high-flow inlet manifold, Courtenay Sport enlarged high-flow plenum and hose, steel rods and updated rod bolts, Ko6 Z20LEH hybrid turbo with updated bearing pack and seals and exhaust wheel cut back, Z20LEH actuator and updated recirculation valve, Courtenay/Pro Alloy enlarged all aluminium radiator, CDTi direct route airbox with Courtenay direct route inlet hoses, Courtenay Sport high-flow panel filter, NGK iridium spark plugs, Vibra Technics updated front, side and rear engine mounts, aircon compressor and condenser removed, Courtenay Piper 76mm stainless steel full exhaust system

POWER

335bhp and 340lb/ft

TRANSMISSION

Factory six-speed manual gearbox with updated race-spec polyurethane gearbox mount, Wavetrac limited-slip differential, Sachs updated clutch cover, updated Helix spring disc, lightweight billet steel flywheel, gearbox oil breather tank

SUSPENSION

DAP race-spec 3 springs for reduced weight with Bilstein B8 dampers, front camber adjustment bolts, Whiteline front poly wishbone bushes, Whiteline adjustable front drop links, Whiteline adjustable rear anti-roll bar

BRAKES

Alcon 4-pot monoblock calipers with 356mm alloy belled discs and Pagid RS29 trackday pads, Courtenay Sport 292mm rear brake upgrade with 8G rear discs, Courtenay Sport braided

brake hoses, enlarged trackday foglight delete brake cooling ducts, lower arm brake cooling ducts

WHEELS & TYRES

8x18in ET35 Team Dynamics Pro Race 1.2 lightweight alloy wheels in anthracite, 225/40x18 Yokohama ADo8 tyres

EXTERIOR

Carbon fibre front splitter and foglight surrounds, carbon fibre rear diffuser, carbon fibre rear V-grille

INTERIOR

Recaro Pole Position front seats, aluminium side mounting plates, Recaro subframes and runners, Sabelt 4-point harnesses with Snap Hook fittings, seat belts removed, side and curtain airbags removed, rear seats removed, rear area fully carpeted, Safety Devices rear half-cage with cross diagonals and eye bolts

“The blue car, which we call the ‘Sprint’ package is an awesome tool on track”

mad with it and compromise its on-road manners,” says Mark. But even with the performance reins holding him back, Mark was still able to extract 305 lively horses from the Z20LEH motor – more than enough to make the daily commute more exciting.

To liberate the extra 65bhp, Mark utilised a Ko4 Z20LEH hybrid turbo to

increase the available boost. This more potent blower sucks air through a CDTi direct route airbox with a high-flow panel filter, before cooling the charge with one of Courtenay's own VXRacing intercoolers with 60mm pipework. The chilled charge then flows through a Courtenay Sport enlarged high-flow plenum before entering the cylinders to be ignited by a set of NGK Iridium spark plugs. The waste gases are then unceremoniously spat out the rear of a Courtenay/Piper three-inch stainless steel exhaust system. The whole thing is controlled by a bespoke ECU remap on Courtenay's in-house dyno.

“The extra power transforms the car, but it's the suspension and transmission upgrades that allow you to make the most of it on the road,” Mark comments. “We find that for road use, the Quaife ATB limited-slip differential is an excellent item, so along with a set of DAP road-spec springs on the OE dampers, and a Whiteline adjustable rear anti-roll bar,

we managed to give the Astra the traction it needed to utilise the additional grunt.”

Of course, when you spend every day tuning customers' cars, you soon learn which mods work and those that don't, meaning Mark had a pretty solid idea of the spec that the Astra would be running before he'd even picked up a spanner.

“Everything that's on the car has been tried and tested by us a hundred times, so we know exactly how it will work and the results we can expect,” says Mark. “Which is partly why I went for the 8x18in Team Dynamics Pro Race 1.2 lightweight alloy wheels. They're much lighter than standard and really help reduce unsprung weight, which is essential when tuning a car, as it has a beneficial effect on all aspects of how the car performs.”

STEALTHY OPTION

The lightweight rims are actually one of the only ways that you can tell that either of Mark's Astras are anything more than stock from the outside, although the keen of eye may have noticed that the rear diffusers, tailgate strips and V-grilles have all been replaced with carbon fibre alternatives. The only other visual clue to the silver VXR's more muscular performance are the beefy



ASTRA VXRS



No creature comforts have been sacrificed in here

TECH SPEC

ENGINE

2-litre, 4-cyl, 16v Z20LEH, Courtenay Sport bespoke ECU remap, front polyurethane engine mount, Courtenay Sport/VXRacing intercooler with 60mm pipework, Courtenay Sport enlarged high-flow plenum and hose, Ko4 Z20LEH hybrid turbo with uprated bearing pack, seals and exhaust wheel cut back, Z20LEH actuator and uprated recirculation valve, Courtenay/Pro Alloy enlarged all aluminium radiator, CDTi direct route airbox with Courtenay direct

route inlet hoses, Courtenay Sport high-flow panel filter, NGK iridium spark plugs, Courtenay/Piper 76mm stainless steel full exhaust system

POWER

305bhp and 335lb/ft

TRANSMISSION

Factory six-speed manual gearbox with uprated polyurethane gearbox mounts, Quaife ATB limited-slip differential

Just a subtle drop and some Pro Race alloys to give the game away



↙ K-Sport 356mm discs and eight-pot calipers that lurk behind the multi-spoke rims.

Mark says the K-Sport stoppers do a fantastic job of scrubbing speed on the road and are even pretty special on track too, however, when it comes to hitting the circuit, he has a much more malevolent ride waiting in the wings. One that makes his silver steed look like a choir boy...

"The plan was originally to use the VX220 as the weekend car," Mark recalls. "But ultimately, it was just too nice to abuse around a circuit and I decided to sell it while it was mint and buy another Astra VXR that I could spec up to take on the track."

Luckily, the car that Mark ended up buying was the Arden Blue beast you see on these pages. "When I bought the car back in May 2012 it was already at Stage three spec, which included upgrades such as a Wavetrac LSD, rear anti-roll bar, uprated clutch and flywheel and brutish Alcon brakes,"

explains Mark. "It came from a customer of ours that had plans to turn it into a track car himself, but he'd not quite got there. Don't get me wrong, it was still a cracking car, but I just wanted to put my stamp on it and create the car I had envisioned."

TRACK SPECIAL

The plan that Mark had plastered across the inside of his cerebral cortex was to turn the VXR into something that could've been a manufacturer special edition – much like the 'caged RenaultSport Megane R26.R.

"I started the build by stripping the front end and sending the turbo off to be hybridised and the intercooler to have our uprated pipe kit added," Mark explains. "The radiator was then ditched in favour of our Pro Alloy aluminium version which is much more efficient."

If this is all sounding familiar, that's because much of the spec of Mark's track car is near identical to his road-

going variant. Most of the mods carried out on that also work perfectly when used in more extreme setups. This means that you can simply add to what you already have if you want more performance, rather than having to scrap and replace your old mods to move to the next level. It's a canny way of doing things that can actually save you money, as you don't have to buy things twice.



SUSPENSION

DAP road-spec springs with OE dampers, Whiteline adjustable rear anti-roll bar, rear camber plates

BRAKES

356mm 8-pot front brake kit with braided brake hoses, Courtenay Sport 278mm 8G rear discs, Yellowstuff ceramic brake pads, Courtenay Sport rear braided brake hoses, lower arm brake cooling ducts

WHEELS & TYRES

8x18in Team Dynamics Pro Race 1.2 lightweight alloy wheels in anthracite with 225/40x18 Hankook RS-2 tyres

EXTERIOR

Carbon fibre rear diffuser, tailgate strip and V-grille

INTERIOR

VXRacing full leather interior and door sill trims

But obviously, as this car was destined for a hard life of lap dancing around the UK's various circuits, Mark wisely sought to further bulletproof the motor and stiffen the chassis to better take the abuse.

"Along with the basic engine upgrades that I fitted to the silver car, for the blue car I decided to rebuild the motor with steel rods and uprated rod bolts to ensure it could withstand the increased power demands," says Mark. "The turbo is also hybridised to the more potent Ko6 spec, rather than the silver car's Ko4 spec. There is a larger Courtenay/Klasen high-flow inlet manifold and I changed the track car's

engine mounts to uprated Vibra Technics items, too."

Other mods that increase the car's hardcore quotient are the half-rollcage and Recaro Pole position bucket seats.

"The rollcage adds a safety element to the car along with improving the chassis' torsional rigidity," explains Mark. "You obviously have to remove the rear seats to fit it, but that just adds to the track car feel and helps performance by reducing weight too."

The Recaro seats have a nice three-fold benefit too as they reduce a shedload of weight, while also sitting you lower down, not only allowing you to benefit from a more



Z20LEH runs a hybrid Ko4 turbo and custom Courtenay map

"We managed to give the Astra the traction it needed to utilise the additional grunt"

305bhp is enough to make this VXR a very capable daily driver



ASTRA VXRS

The road VXR retains its posh leather Recaros



supportive and sportier driving position, but also to further lower the car's centre of gravity.

They also allow you to use racing harnesses instead of the stock seat belts, which in the blue car, have been removed completely.

"Other parts that have also been removed to save weight are things such as the aircon and airbags," Mark points out. "As they are pretty much redundant on a track car."

GET A GRIP

One thing that's certainly not redundant on a track car is an uprated transmission and, along with the hardcore Wavetrac diff (which was already on the car when he bought it),

Mark has added a Sachs uprated clutch cover, uprated Helix spring disc and lightweight billet steel flywheel. These combine to ensure that none of the car's 335bhp and 340lb/ft of torque is lost, before getting to the 8x18in Pro Race 1.2 wheels and sticky semi-slick Yokohama ADO8 tyres.

Keeping said rubber planted to the tarmac is a set of DAP race-spec 3 springs with Bilstein B8 dampers that Mark says stiffens up the handling a treat.

Front camber adjustment bolts, Whiteline front poly wishbone bushes and adjustable front drop links, combine with the similarly branded adjustable rear anti-roll bar, to allow all the fine tuning he needs to get the

Astra's handling to perfectly complement the extra oomph.

"The blue car, which we actually call the 'Sprint' package, is an awesome tool on track," confirms Mark. "With the upgrades to the suspension, brakes and transmission, combined with the reduction in weight, you really don't need much more power to scare the life out of supposedly 'superior' machinery. It really is a monster when you want it to be."

So whether he wants to rule the roads in his silver VXR or terrorise the track in its evil twin, with these two mighty Astras, Mark has always got the perfect tool for the job. And as a leading force at Courtenay, we're sure there's plenty more to come. ○





Stripped out, but the carpet and plastic remain to keep it civilised



Alcon stoppers are more than up to the job of hard laps on track



“You really don't need much more power to scare the life out of 'superior' machinery”