#### **Modified vehicles: Forge Motorsport T5**



# Not just for show, Forge Motorsport's T5 Transporter also pulls its weight as a demo and delivery vehicle

IT'S NOT AT ALL unusual to see works vans which are also decorated as mobile billboards, for promotional purposes. Indeed, it is only simple commercial common-sense to use any company vehicle to help advertise the business as it roams the country, collecting and delivering and generally being seen out and about...

It's even better, though, if the same van can also serve as a demonstration vehicle, to present the products themselves and show how well they work, rather than just making bold claims on a website or in a glossy catalogue. After all, if there was any doubt about the effectiveness or reliability of the products then the company in question would soon be caught out, if their own vehicle – both literally and figuratively – failed to deliver the goods.

When Forge Motorsport, based in Gloucester, purchased its long-wheel-base VW T5 Transporter, it had both these roles in mind. Incidentally, the company – although catering for many marques – also has a particularly strong association with the Volkswagen range. So, what better way to prove the product, transport the goods and reinforce the brand connection than to decorate and develop the van itself?

The 'personalised' registration number is but the icing on the cake, because it's the black and red 'chequered flag' graphic paint scheme which gets noticed.

Strong, vibrant and eye-catching, it's a style statement in every way, worthy of any custom concours contest. It's also a perfect presentation of the powerful and dynamic image of the company and its high-performance road tuning and motorsport product range.

But, just as it would be wrong for it to be charging around the country at high speeds, blasting past other road users and causing offence, so would it also have been embarrassing for the company if its own delivery van was seen labouring along, struggling to climb hills when heavily laden and holding up the traffic...

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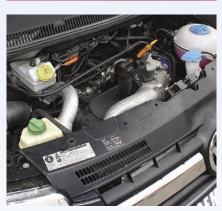


It's not that the T5 is slothful in standard form - far from it. This 130 PS 2.5-litre 5-cylinder TDI engine is well known for its good torque characteristics and manages a comfortable combination of performance and economy. But there's always room for improvement, particularly useful when the van is fully loaded with heavy goods and its standard power to weight ratio begins to suffer.

As well as manufacturing and marketing a wide range of specially fabricated steel and aluminium engine

and suspension components, Forge has also made a name for itself in the electronic tuning market. One of the first steps, then, was to reconfigure the standard engine management control unit. Re-mapping the programs which control fuel delivery and turbo boost levels is always an effective way to produce more power and torque, and Forge Motorsport has the dyno plots to prove it.

Tested on the Maha LPS 300 PKW rolling-road dynamometer at Powerstation



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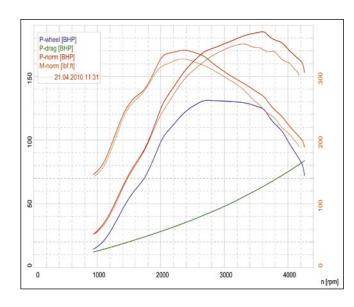
in Tewkesbury, the re-mapped T5 recorded 125 bhp at the wheels, which equates to 175 bhp at the flywheel when the transmission losses are taken into account. That's a significant improvement on the standard power output but just as important is that it retains a smooth progressive power curve, with its peak at a conservative 3295 rpm. The re-mapped van remains smooth and tractable and doesn't have to be revved hard or need constant gearchanging to keep it on the boil.

But Forge Motorsport still had a trick

up its sleeve, because an important factor for any turbocharged engine, petrol or diesel, is well controlled induction air temperature, and they specialise in designing and manufacturing intercooler installations. Even though it is much larger, for improved cooling capacity, the new Forge front-mounted unit is a direct replacement for the standard OEM air-toair matrix. No metalwork modifications are required and only a small piece of excess plastic needs to be trimmed from the rear of the bumper, near the grille opening. It's virtually a straightforward

bolt-on and plug-in installation, requiring no additional hoses or pipework.

The benefits of an improved intercooler don't always show up as well on a static rolling-road test as they do at high speed out on the open road, but - even so - the subsequent power test on the same dyno showed a further improvement of 10 bhp, and an extra 20 lb.ft. of torque. Now totalling 185 bhp, that makes it stronger than the new top-of-the-range twinturbo TDI in the latest generation of T5 and all who've driven the van following the installation have commented on









how much better it feels, with its ready response and no hint of turbo lag.

Needless to say, Forge also delved into its product range and came up with a set of four silicone boost hoses, secured with alloy bayonet-style couplers for ease of installation. Although not necessarily a performance improvement as such, silicone hoses are much more resilient and long-lasting – not to mention good-looking – than the standard-fit rubber boost pipes and are well worthwhile on any modified motor.

With the power to weight ratio now well and truly enhanced, an equally important consideration was to upgrade the braking system, to help haul the heavyweight T5 down from high speeds. So, back to the workshop, where Forge designed and manufactured its own big-brake kit, using 356 x 32 mm ventilated and grooved discs and massive 6-pot callipers on custom-made mounting brackets. Fitted in conjunction



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with stainless-steel braided brake hoses and high-quality fast road pads, they work extremely well indeed.

The only proviso is that the new brakes are so much bigger that they can only be fitted in conjunction with 19-inch or larger diameter alloy wheels, which gave Forge the perfect excuse – if any were needed – to fit the finishing touch, a set of 20-inch alloys shod with 265/45 Lexani Roadian HPs.

The only slight disappointment for custom van fans might be that, inside, the Forge Motorsport T5 is still pretty much standard, with no special custom

chairs, stylish steering wheel or dashboard embellishments. Open the rear doors and there's no exotic leather-trimmed seating or high-tech sound systems, just plywood panelling. Which is just as well, really, because it might well be an eye-catching, powerful and dynamic demo vehicle, but it still has a job to do – delivering the goods on time.

#### Forge Motorsport

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