



# The magic formula

DAVE VAZEY'S WILLYS COUPE WAS ONLY EVER INTENDED FOR THE STRIP, BUT NOW THE BLOWN HEMI-POWERED MACHINE IS TURNING HEADS AND TYRES ON THE STREET

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PHOTOS: STRONG STYLE PHOTO

In stark contrast to popular opinion, Dave Vazey states that there's no dramas in getting scratch-built cars road legal, if you know what you're doing. The '41 Willys coupe that he's just completed is a clear signal that he well and truly knows what he's doing.

As if building a car like this from a blank slate is not enough of a challenge, the car was initially being constructed solely for strip use. However, during the build, Dave, who is a talented engineer by trade, decided that the way the build was shaping up, it'd be a shame to only be able to use it a quarter of mile at a time. Working in his favour on this wild change of direction was the fact that he's owned and built 30 or so American cars in the past, ranging

from reasonably mild to completely wild, so he's well aware of what it takes to build them right, and if, on the off-chance that he didn't, there was every chance that his son Doron Andersen Vazey did. If Doron's name is familiar, that is probably due either to his own quarter-mile exploits behind the wheel of his impressive A-body Cuda or the fact that he too is a very capable engineer.

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Working smartly from the outset, Dave made contact with Dean Cadman to get the plans Dean used when building his own Willys coupes — cars successfully registered on the street and shot down the quarter-mile. This gave Dave the perfect foundation to

build a car that he knew would be capable of not only holding the power plant he wished to drop in it but also making the most of that power.

Mild steel was the material of choice for the chassis, both for ease of working and its structural properties. The lion's share of the fabrication work was taken care of by Dave himself, although Doron got the call to TIG up the integral roll cage. With the car's intended purpose of minimal quarter-mile times, the rear chassis

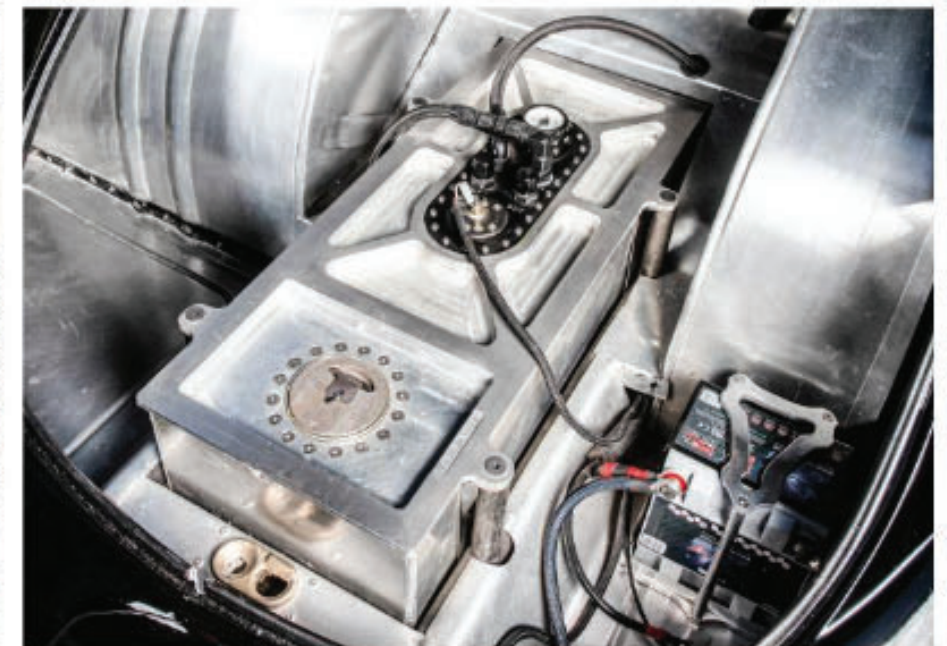


rails are very tightly spaced to ensure enough room under the haunches for plenty of rubber. In fact, the diff that is hanging off a four-link on the rear measures in at just 850mm from flange to flange — that's narrow when you factor in the TSD nine-inch diff housing in the middle of it. Into that housing were slotted 31-spline axles, while a Detroit Locker along with Strange yoke and pinion take care of the centre.

The custom driveshaft that links the diff to the Dedenbear-cased Powerglide transmission is also ridiculously short, but that's not a bad thing given the hiding it will receive once the car hits the strip. The trans itself has also been well and truly future-proofed with a transbrake, manual valve body, and high stall converter being fitted.

So, what's powering the car for it to need all of this? Easily put, the best damn engine combo you could ever throw at a Willys coupe! While big block Chevs may be easier to build, and cheaper to get power out of, Dave's desire to own a Willys extends back to the days when they were raced hard and packed with blown Hemi horsepower, so he wasn't prepared to settle for anything less.

A real-deal cast-iron 392 Hemi was sourced from a 1957–1958 Chrysler Imperial and, despite being near bulletproof from the factory, it was soon dropped to West Auckland Engine Reconditioners (WAER) for some treatment. Martin Hogan was the WAER expert to work his magic on the combo, filling the slightly enlarged bores with Ross Racing pistons atop the stock rods and crank. The Hemi heads also remained relatively stock, only being cleaned up before heavy-duty valves were fitted and a Weisand intake manifold bolted on top. The pièce de résistance of the set-up is the beautiful The Blower Shop (TBS) 8-71 supercharger that sits on top with two 750cfm Holley carbs, topped with a Hilborn-style scoop. It's hard to beat the look of a blown Hemi and, with the features this one is packing, it'll be hard to beat on the track, too — case in point being the MSD 7AL ignition, which works off an MSD crank trigger and a locked MSD distributor.





This combination will ensure that a powerful spark is sent to the combustion chambers, where it ignites the fuel supplied by an Aeromotive fuel system. To keep the fuel pressure up to speed — or, more accurately, up with the boost — an Aeromotive boost-referenced fuel-pressure regulator has been fitted to regulate the flow from the 60-litre alloy fuel tank.

Like many parts, the tank has been handcrafted. The top wears a 6061 alloy plate that has been milled by hand to get the Aeromotive pump and sender unit exactly how Dave wanted it. That exercise in excess — because he could — is testament not only to Dave's abilities but also his attention to detail. That effort has flowed into the cooling system, where a custom aluminium radiator has been fitted in conjunction with AN-20 hoses and fittings rather than traditional radiator pipes.

The exhaust side is where two-inch stainless headers come in to play. Dave called Doron in to help with this aspect of the build, which, given how much work goes into crafting headers like this, was a great call to make. The exhaust system that follows from the four-inch collectors flows through custom mufflers before ending beneath the rear of the car. The twin three-inch pipes need to snake their way through all the custom cross members, along with a Cadillac steering rack and custom four-link, on the way to the rear. The steering rack has been built to work with Reid uprights and custom A-arms that are suspended by Aidan coilovers and QA1 springs. The rear suspension set-up also utilises Aidan coilovers and Aidan springs along with a torsion roll bar and torsion Panhard set-up.

When setting up the braking system, Dave opted to fit a floor-mounted Wilwood pedal box that controls four-pot calipers through a proportioning valve and line lock from the same manufacturer. That pedal box is in good company when it comes to race-style components, as it's riding with a Woodward steering column and Kirkey full-containment seats. Softening the look slightly are

custom deerskin seat covers and a Ferrari-sourced steering wheel, while luxuries such as electric windows and a Dakota Digital dash are sure to help on those long drives to the drag strip.

When it came time for working on the exterior, Dave was torn between the wild colour schemes of the Willys coupes that he fell in love with all those years ago, and the colour that's hard to beat on the iconic shape: gloss black. The final outcome was to

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get Jodie Fletcher to create a mix of both: PPG jet black along with a detailed mixture of lace, candy, and flake. The choice of Center Line wheels is almost as iconic as the look of a black Willys itself, especially when wrapped in 35x21.5x15 Hoosier Pro Street tyres for maximum traction. Up front, the half-width Center Lines wear 25x7.5x15 Hoosiers. Although those tyres are switched out for road use, the build has been performed so well that there were no headaches when it came time to LVV certification.

With that hurdle ticked off, the only thing left to do is get it down the quarter and see how quick it goes. From what we have seen from how well-prepared Dave is, we're sure the car's performance will well and truly live up to expectations!



### 1941 Willys coupe (replica)

**ENGINE:** WAER-built 392ci Chrysler Hemi, bored 30-thou, Ross Racing pistons, stock heads, heavy-duty valves, Weiland intake manifold, TBS 8-71 supercharger, twin 750cfm Holley carbs, Hilborn-style scoop, 60-litre alloy fuel tank, Aeromotive fuel pump, Aeromotive boost-referenced fuel pressure regulator, MSD crank trigger, MSD 7AL ignition, two-inch stainless headers, four-inch collectors, custom mufflers, custom alloy radiator, MSD distributor

**DRIVELINE:** Dedenbear-cased Powerglide transmission, transbrake, manual valve body, high-stall converter, nine-inch diff, TSD centre, 31-spline axles, Detroit Locker, Strange yoke and pinion, heavy-duty driveshaft

**SUSPENSION:** (F) custom independent front suspension (IFS), Reid uprights, QA1 springs, Aidan shocks; (R) four-link torsion roll bar, torsion Panhard

**BRAKES:** Wilwood floor-mounted pedal box, line lock, Wilwood proportioning valve, (F) Wilwood four-pot calipers, (R) Lokar handbrake

**WHEELS/TYRES:** (F) 15x7-inch Center Line, 25x7.5x15 Hoosier Pro Street; (R) 15x18-inch Center Line, 32x21.5x15 Hoosier Pro Street

**EXTERIOR:** Fibreglass body, suicide doors, Hagan hinges, PPG jet black paint, custom lace work

**CHASSIS:** Mild steel full-tube

**INTERIOR:** Kirkey full-containment seats, deerskin seat covers, Ferrari steering wheel, Woodward column, Earl's-type shifter, Dakota Digital dash, Spitfire aircraft dash light, electric windows

**PERFORMANCE:** TBC



### Driver: Dave Vazey

**CAR CLUB:** Wheels Inc Hot Rod Club

**OCCUPATION:** Engineer

**PREVIOUSLY OWNED CARS:** 30 or so American cars ranging from a Holman-Moody 427 Thunderbolt to a '58 Imperial

**LENGTH OF OWNERSHIP:** Hard work for the past few years; collecting parts a bit longer

**DAVE THANKS:** My wife Tami, Doron, Jodie, LVV guys, and Motor Clinic West Auckland. Many people help out when you build from scratch, so a huge thanks to all who have helped get this done; it was a great effort and I'm very pleased with it

