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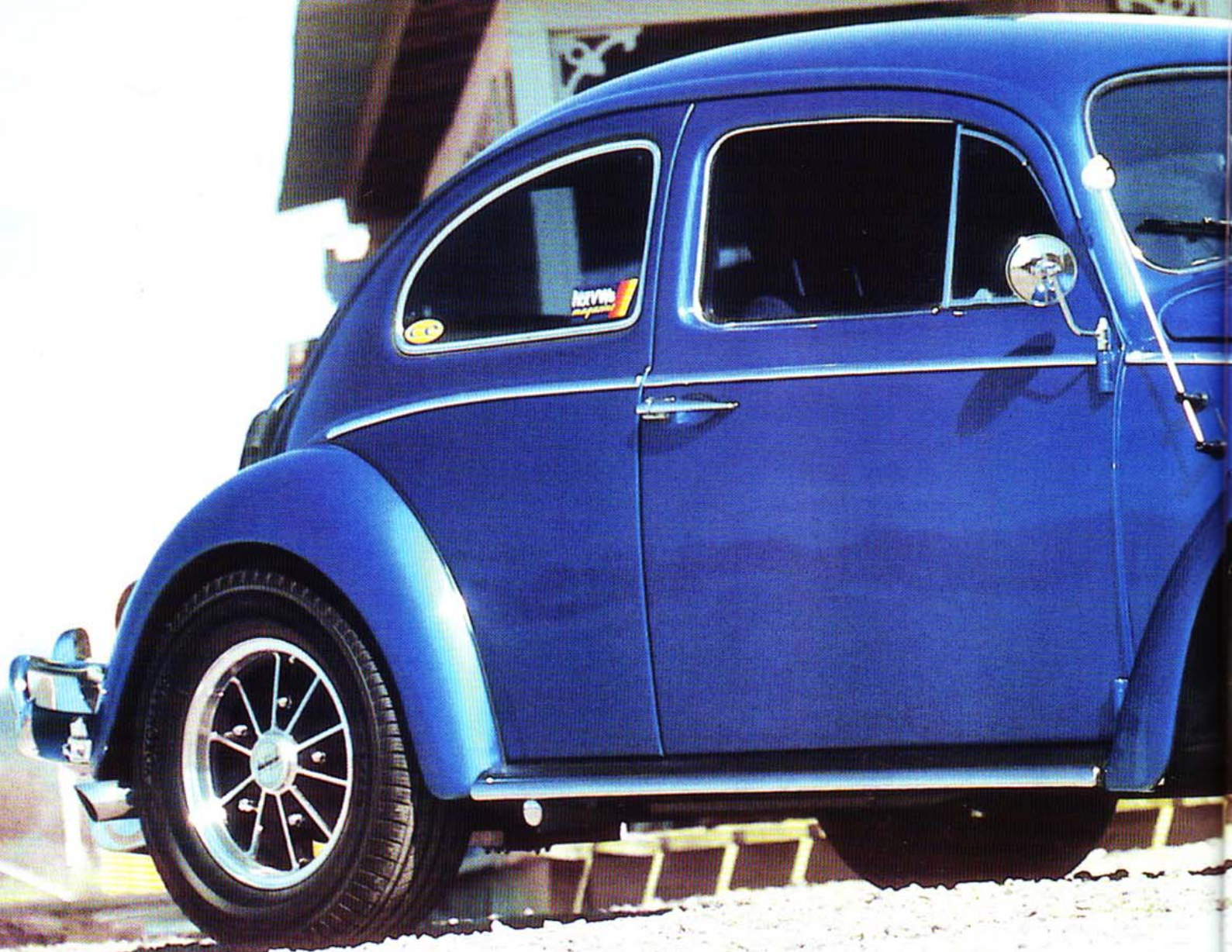
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# Lethal Injection



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A project VW seemed like the perfect way for a dad to spend some quality time with his son, but little did either of them know what they were getting themselves into, or just how far they would end up going with it

**Words: Mike Pye Pics: Kiki de Bois**

**O**ver the years we've lost track of the number of people who have asked us what it is about VWs or asked why and how we got into them in the first place. Of course everyone has their own reasons but, for those of us in the scene of, er, more mature persuasion, one of the main answers is because they were available, affordable and were a car you could work on yourself.

Not many kids at my school had VWs, but a lot of people liked them and the attraction was more than just their cute looks. That attraction is infectious, too, a fact that's backed up by father and son

Leyder and Chris Ness from Glendale, Arizona. Leyder's wife Marty had always driven VWs and even though Leyder was a V8 guy through and through (who currently crews for a nitro burning fuel altered dragster), she slowly but surely started to work her VW mojo on him. Leyder never did get round to building that hot yank for himself and when their son Chris turned driving age, a perfect opportunity for a bit of father / son bonding presented itself. Everyone needs a project in their lives and what better project than an old VW that the boys could get their hands dirty on in the garage together? Like so many kids these days Chris was taken in by the massive front-wheel drive tuner

scene and yearned for a go-faster Honda, so Leyder had to act fast. As luck would have it, just around the corner from where they lived was a driving but unloved '62 Beetle for sale at the right money.

Once they had the car home, the excitement of the project that lay ahead really kicked in, and during conversations with friends, offers of help and previously unknown skills started coming out of the woodwork. One friend in particular, Jeremy Jacobson, would prove to be a real gold mine as he'd been into VWs for years and his dad had bought out a couple of old VW dealerships in the past, complete with all their NOS parts - some of which found themselves onto the Ness '62.

Leyder is clearly an organised kind of guy and so approached the project sensibly and methodically, stripping the car down to every last nut and bolt and cataloguing everything as they went

along - a great idea if, like us, you have a memory like a special needs goldfish. The duo then split into the body and paint team and the mechanical team, dad Leyder captaining the latter. What Leyder didn't realise when he got into the project was that his then business partner, Randy Asheim, had done a bit of bodywork in the past so he took Chris under his wing

## ***It's in the induction department that this car really breaks from the norm***

and got him started on bare metalling the body. Randy then blew off his old spray gun and laid some Zolotone stone chip on the under bonnet area and the engine bay, as well as on the underside of the pan, after new pan halves were installed. He drew the line at doing the finish paintwork though and so the team drafted in a local crash repair specialist in nearby Phoenix to lay on the Dodge Intense Metallic Blue.

While this was all being taken care of, Leyder was busy fitting up the freshly painted floorpan. Knowing that this was a car his son was going to be spending plenty of time behind the wheel of, he didn't take any chances when it came to the basic mechanical components. Where they could be bought new they were, where NOS parts were available, they were fitted, plus a few extra tweaks were included to bring the 44-year old design up to date.

The one thing that had put Chris off VWs in the first place was how slow they were compared to the tuner cars, but the sight of a few full tilt California Look Beetles running in the Renn Kafer Cup at the local shows convinced him things didn't have to be that way.

With plans formulating for a seriously hot motor, the undercarriage had to be up to the task of handling it. To this end, a new, adjustable and narrowed king and





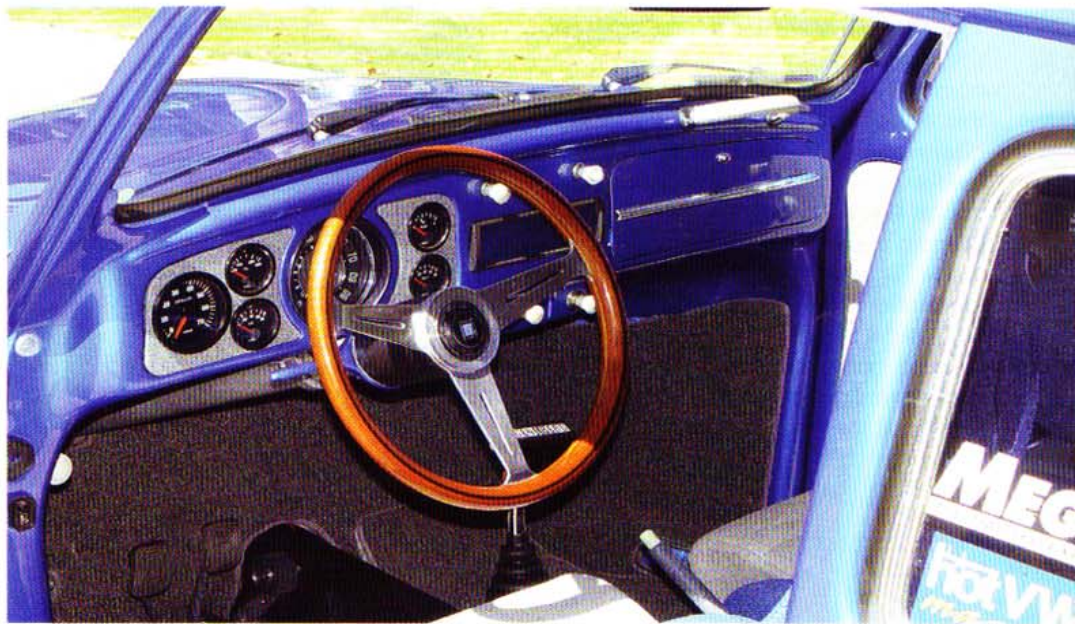
through Sway-A-Way race axles and is held in place by a custom made intermediate mount, padded transaxle straps and heavy duty rubber gearbox mounts. Sway-A-Way spring plates replace the standard VW items and a pair of desirable Type 3 rear drum brakes add a bit of useful extra beef in the stopping department.

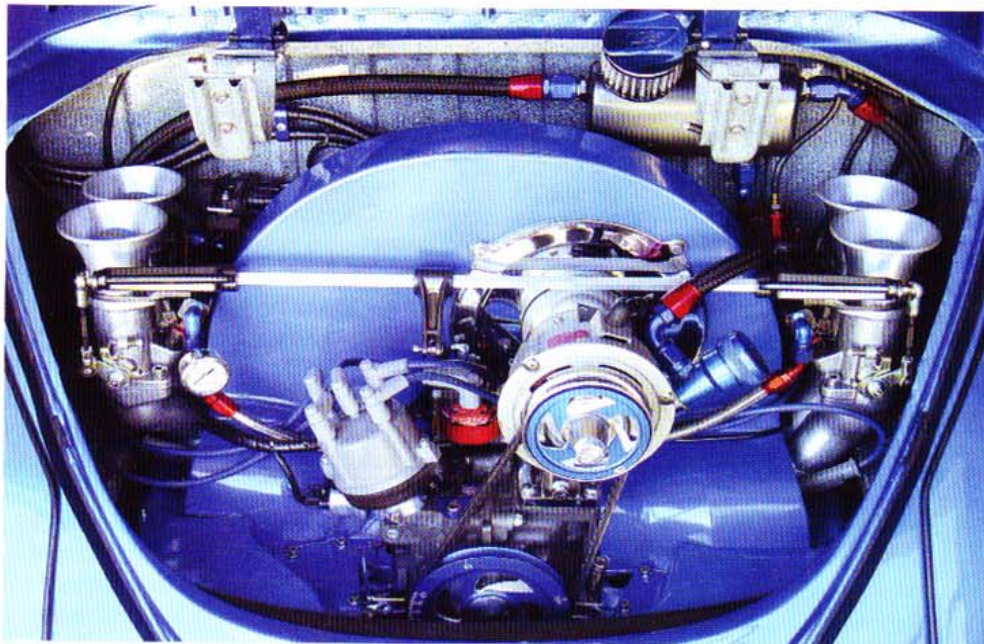
With all this work gone into the chassis, it was only right that the engine get just as much attention. And they sure didn't skimp on this area, no siree. Starting with a new, Rimco machined AS41 case, Dan Lawson at Competition Engineering in Tempe, Arizona started to assemble a killer long block, based around a CB 82mm forged crank, 94mm Mahle barrels and pistons and CB 5.5-inch rods. For the mathematically challenged, this little lot adds up to a not inconsiderable 2276cc. While a big capacity VW motor will give you plenty of grunt, if you want to make serious top end power you gotta get good heads, too. CB 044 Magnums have been doing good work for a while now and they get even better when given a thorough port and polish job. In this case, it was Mike Fischer, also of Competition Engineering, that wielded the die grinder, opening up the combustion chambers to CE's stage three spec and making sure all the combustion chambers were a nice, even 60cc hemi cut. 44 and 37.5mm Manley stainless steel valves are opened and shut by a combination of Pauter Machine's 1.5:1 billet roller rockers and a Web Cam 86A camshaft.

Up until now the engine spec is pretty much what we've come to expect from the latest generation California Lookers but it's in the induction department that this motor

**ABOVE** Wheels are now standard repro BRMs, here with 145 Nankang and 205/70 Yokohamas  
**LEFT** Kurt Kniggle (great name!) came up with a load of NOS parts and an Oval decklid for the '62  
**BELOW** Unusually for a car destined for some strip action there's also a top quality stereo inside

link pin beam went on, equipped with dropped spindles, CB Performance wide 5 disc brakes, stainless brake lines throughout and all new steering and damping equipment. At the back end things get a bit more serious. A strong Rancho Pro Comp street gearbox with a 4.12 ring and pinion, super diff, welded third and fourth and steel shift forks transmits the power





## What is Der Renn-Kafer Cup?

Now in its fourth year, Der Renn-Kafer Cup is an American VW drag racing class run at several of the West Coast events. It was conceived to add a new attraction to the VW drag racing schedule - one that spectators can more easily relate to - and to answer the age-old question, "does she run as good as she looks?"

All the cars in the Der Renn-Kafer Cup are full-on show cars which score 85 or better out of 100 in the show 'n' shine and should run at least in the 13s. The current points leaders usually score in the high 90s and run in the high 11s. All cars must be fully street legal and have current registration and insurance certificates. They must also pass a rigid safety inspection.

The DRKC class is for old school Cal Look-style VWs (their words, not ours!). Engines must be normally aspirated and VW cased. Nitrous is not allowed. Each entry gets two or three passes and the best two ETs are averaged. These are amalgamated with the show judging points to produce a set of results based half on looks and half on speed.

really breaks from the norm and when you hear the estimated power output, it might make you think differently about searching out that pair of 48IDA dinosaurs. The nature of the beast meant it was always going to be a development process that started out with a single, two-inch throttle body. Engine builder Dan Lawson fabbed up the intake manifold, plumbed in the fuel delivery system and set up the Competition Engineering MEFI-3 ECU. Aply assisted by a full complement of MSD ignition products, the engine made a solid 190bhp at 6500rpm, but this was just the beginning...

What started out on the route to being a pretty standard California Look Bug has evolved into something very special indeed and the family Ness have now become regular competitors in the American Renn-Kafer Cup show 'n' go series (see [www.bugin.com](http://www.bugin.com)) and, in their first year, took a very creditable fourth place overall. Together with Mike Fischer at Competition Engineering the engine has been constantly developing, with three different throttle bodies tried up to a huge 1050cfm billet version. Still not enough, these were then swapped out for a pair of dual port 48 throttle bodies, machined out to 51.5mm. These draw air through siamesed IDA stacks, smoothed into the throttle bodies for cleaner airflow. A step up to a MEFI-4 ECU and a few dyno pulls to optimise the fuel and ignition settings saw the already impressive figures rise to a massive 219bhp at the rear wheels, with 180ft.lbs of torque to back it up.

With the new ECU the laptop can be

**RIGHT** The road to the current injection set-up started with this single throttle body on a custom fabbed manifold. Flow just wasn't enough though

**ABOVE** In this spec with dual 51.5mm throttle bodies the engine makes 219bhp at the back wheels - enough for mid 12s. A change of gear ratios should see this drop deeper into the 12s

plugged in at the track and the settings optimised to the conditions. Best time so far is 12.59 at 109.85mph.

However, with street cars both in the USA and here in Europe now regularly running down into the 10s, we'll wait to see how long Leyder and Chris are happy with this kind of performance. Judging by the way the car has progressed so far, we don't think it will be long before they're aiming for the 11s, then after that the 10s. The question is though, how much does Chris get to drive 'his' car any more?

## Tech spec:

Fuel injected 2276cc motor  
Rimco AS41 case - shuffle pinned, welded behind no.3 cylinder, full flow oiling  
82mm forged CB crank  
94 Mahle barrels and pistons  
Total Seal rings  
CB 5.5-inch I-beam rods  
Web Cam 86A camshaft (.502in lift, 2900 duration)  
CE straight cut cam gear  
CB 044 Magnum heads, ported and polished  
Manley 44mm intake and 37.5mm exhaust s/s valves



Deano dual valve springs, titanium retainers, Pauter Machine 1.5:1 roller rockers  
9.0:1 compression ratio  
Competition Engineering 48mm throttle bodies, bored to 51.5mm  
CE MEFI-4 engine management  
Bosch fuel injectors  
MSD 6AL ignition module, billet distributor, coil and plug leads  
1 7/8-inch Bugpack merged header with 2 1/4-inch  
Flowmaster muffler  
12.5lb lightened flywheel  
Kennedy 1700lb clutch and CE clutch disc  
Extras: Puma doghouse fan shroud (now 30-horse instead), Rev Master h/d oil pump, deep sump, copper head gaskets, auxilliary remote oil cooler and filter, welded and balanced fan,  
Power: 219bhp (at the wheels!)  
Torque: 180ft.lbs

**Gearbox:** Rancho Pro Comp swing axle street gearbox  
3.78 1st, 2.062nd, 1.48 3rd, 1.14 4th  
4.12:1 ring and pinion,  
Super diff  
Welded third and fourth  
Steel shift forks  
Heavy duty side plate  
Sway-A-Way race axles