

**FORD ZETEC
INTO RWD**
FIND OUT HOW TO

**HOW TO TIME
AN ENGINE
WITHOUT MARKS**

**241bhp 4WD HOT
HATCH FOR £8K**
R32 BUYERS' GUIDE



PRACTICAL PERFORMANCE

CAR

PERFORMANCE TUNING FOR GROWN-UPS

**WHY YOU CAN'T
MAP ON THE ROAD**

DAVE WALKER REVEALS
COMMON MYTHS

**DIY LOTUS
STEEL RIMS**

AND LESS THAN £70 A SET

**£200 TRACK-DAY
CAR AT MALLORY**

READER PROVES IT'S POSSIBLE

500BHP VOLVO

STANDARD LOOKING SWEDE WITH SUPERCHARGED 6-LITRE V8



FEBRUARY 2010 **ISSUE 70** £4.40

TRIUMPH TRIPLE FIAT

SHELL STRIPPING NITROUS GUIDE
PPC STAFF CARS BLOWN X-FLOW BUILD



PHOTOGRAPHY: ANDERS ODEHOLM

PRO-VO

WHAT HAPPENS WHEN YOU TAKE THE US PRO-TOURING LOOK, EXPORT IT 5000 MILES ROUND THE WORLD AND APPLY IT TO A 70S VOLVO? ED HALL HEADS TO SWEDEN TO CHECK OUT HAKAN JOHANSSON'S AWESOME VOLVO 242

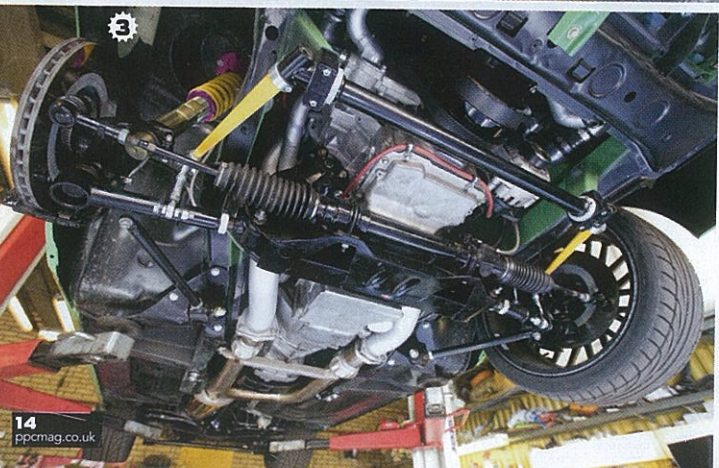


VOLVO

→ Fusion: the union or blending of two things. It's a popular term in cuisine to describe mixing eastern flavours with western cooking styles and it perfectly sums up Hakan Johansson's approach to building this extraordinary Volvo 242.

Now the internet has made our world small, different styles and trends of car modification have become as accessible





and visible to us as those on our own doorsteps. Japanese build traditional US hot rods, Brits are inspired by Japanese Bosozoku culture and so on. We all take a piece of what we like from other car scenes from around the world and, intentionally or not, blend it with what's available and familiar to us. It's a fantastic phenomena that creates some of the most interesting modified cars. Take Hakan Johansson's Volvo 242, every inch of its concept is out of the American Pro Touring school of muscle car modification, but the base canvas is 100% home grown.

'A Volvo 240 was my first car,' says Hakan, or Hocky as he's known. 'You never forget your first car and the first drive. Volvos are part of my automotive DNA. A somewhat mutant gene though as I actually am crazy about American Pro Touring muscle cars.'

Actually Pro Touring is a style of modifying that's very close to the PPC ethos. It's taking an old performance car, in this case a 60s muscle car, and enhancing the drivetrain, suspension, brakes and performance to function as well as or surpass a modern performance car. The emphasis is on function, not just aesthetics. Above all they're designed to be driven, and driven hard. Bright clean colours on smooth but relatively stock bodywork, riding low on modern big inch alloys defines the Pro Touring look. Under the skin big brakes, high-tech suspension and serious horsepower are the name of the game.

The best thing about Hocky's Volvo, a two-door 242 not sold over here, is how stock it looks. Hocky took time to hunt down NOS rubber, trim parts and headlamps from www.gcp.se to maintain the factory look. Even that violent bright green colour is original to the car and there was no question that another shade might replace it when it came to spraying a fresh coat.

'I never considered any other colour. The colour is both ugly and beautiful. I just wish that Volvo had given it a cool name when the car was new, that's why I call it Volvo Racing Green.'

We see a lot of stripped out caged up cars here at PPC so Hocky's Volvo is all the more impressive that it's completely bone stock inside; a sea of unrelenting orangeness. It's fantastic. Even the monster steering wheel is as Gothenburg intended. Only a later 740 electric speedo and GM ECU are carefully hidden so as to deceive even the most committed Volvo spotter.

But rather than going into extraordinary depth on Volvo trim fabrics circa 1975, let's get stuck into what makes this car so amazing – what's under the skin and how Hocky created it.

Having built some show stopping machinery in the past including a drag racing 32 Ford capable of putting in a 9 second quarter mile pass, a pro street Volvo Amazon with a 415bhp turbo Volvo motor and a pro street 55 Chevy with 547 fuel injected cubic inches under the hood, Hocky came full

circle and for his next project and started looking for a decent example of his first car.

'I've had the idea of a V8 EFI Volvo 240 for some years now, probably for nostalgic reasons. At first I just wanted a simple project to build a daily driver but luckily the project went out of control as soon as it started!'

The two-door two-forty found Hocky via a wanted ad on a website. The car was stripped for restoration and the parts catalogued in marked boxes. Despite being in pieces the car was actually in very good condition and had only covered 110K km. All that was needed to bring the body up to scratch was a pair of genuine new front wings.

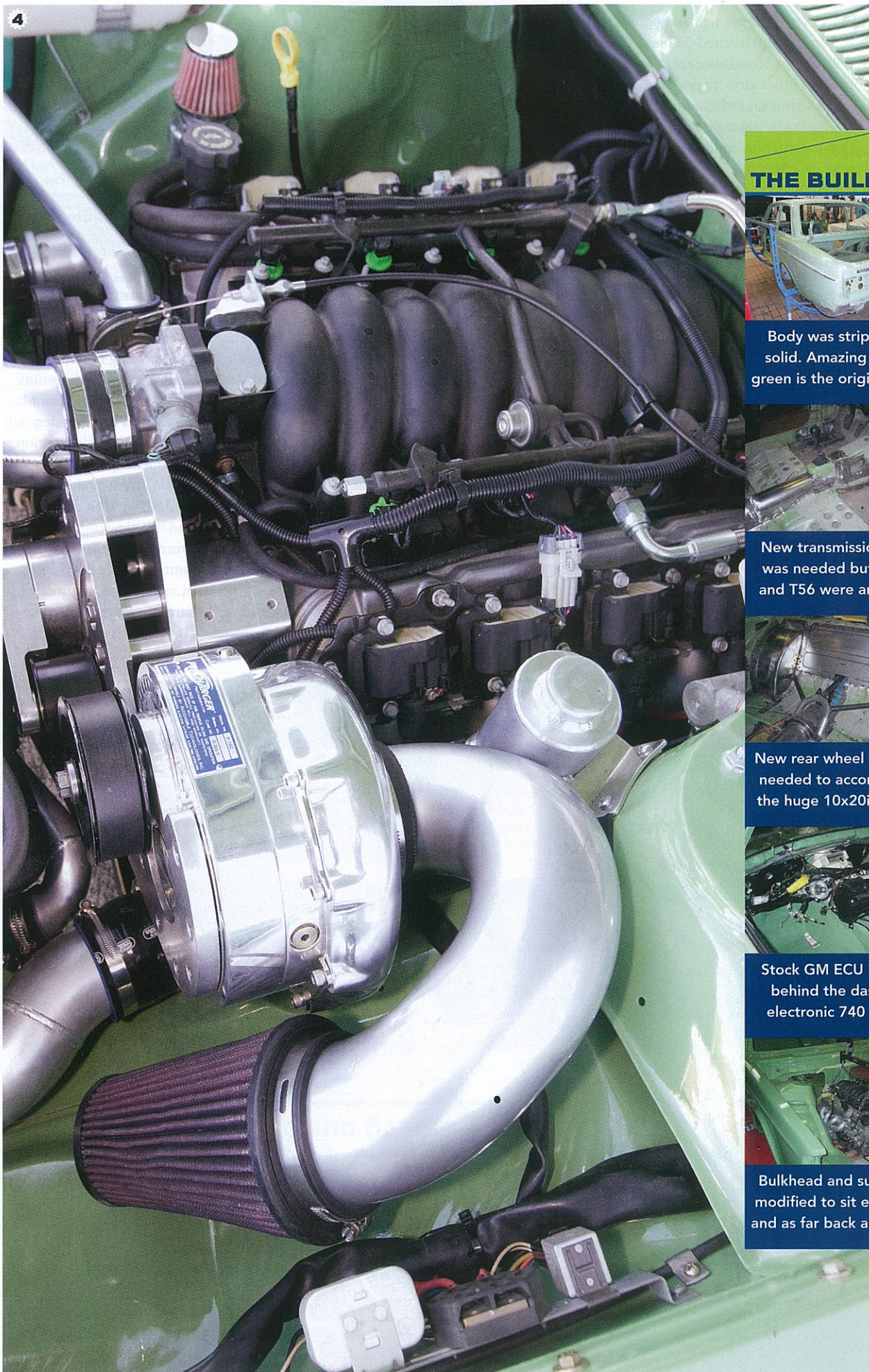
1. Pro-Charger P15C boosts the LS1 to 500bhp.

2. Bespoke KW coil-overs suspend Mopar 8 3/4 rear.

3. Front end uses BMW E46 uprights

4. Hocky's been dreaming of a V8 Volvo for years.

4



THE BUILD



Body was stripped but solid. Amazing the lime green is the original colour.



New transmission tunnel was needed but the LS1 and T56 were an easy fit.



New rear wheel tubs were needed to accommodate the huge 10x20in wheels.



Stock GM ECU is hidden behind the dash, as is electronic 740 speedo.



Bulkhead and sump were modified to sit engine low and as far back as possible.

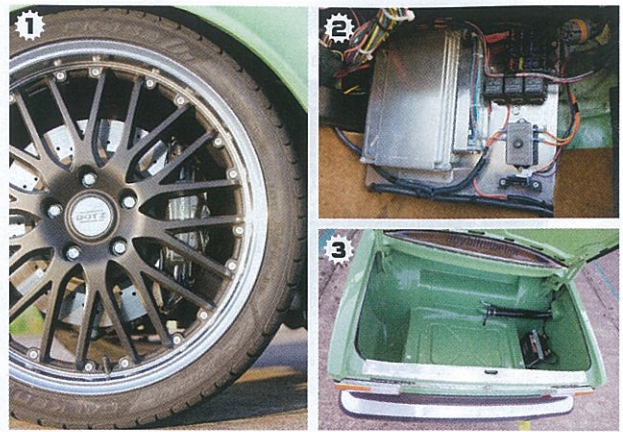
Hocky's plans evolving into something more extreme can be to some extent blamed on his garage buddies. Like many car builders in Scandinavia, Hocky shares a big shop with a bunch of other guys, they've got 12 working spaces, MiG and TiG welders, a lathe, an engine building room and so on. Lucky bastards, but it demonstrates what a good idea it can be to club together on equipment and premises. Of course when they heard of his plans they egged him on to be more extreme, and usefully one of them provided him with the Chevy LS1 engine he needed from a 99 Camaro SS.

The idea was to leave the engine stock but inevitably it didn't take long for supercharging plans to seed in his mind.

'I found a picture of a Pontiac GTO fitted with a Pro-Charger P1SC kit on the 'net. The engine bay looked like a similar size to the 240 so I thought I'd take a risk on it fitting and ordered the kit from Arizona on eBay.com.'

It did fit too, well almost, just needing a couple of mods to the pulleys and mounts, plus the power steering pump from a Pontiac GTO (same as Vauxhall Monaro). The LS1 itself squeezed easily into the Volvo capacious engine bay, with most of Hocky's work being to mount it as far back and as low as possible for the handling, meaning massaging the bulkhead and modifying the sump to suit the crossmember.

Behind the LS1 is the expected T56 six-speed, but where Hocky has been



really clever is configuring the suspension and brakes to suit the 500bhp the blown LS1 kicks out. Replacing the Volvo back axle is a super-tough Chrysler 8 3/4in live rear. It's three-link mounted to preserve the rear seat and sprung, as the front is with KW competition coil-overs. Hocky uses CAD design in his job, so that came in handy for designing the axle location as there's not a lot off the shelf for putting Mopar axles into old Volvos. All the panhard rod and axle links were designed to be adjustable for circuit driving or drag racing and each piece laser cut to Hocky's spec.

There was no way those 10x20in rear wheels would fit in the stock wheel tubs and allow the sort of ride height Hocky was after so before the car saw paint, out came the grinder for the wheel wells the transmission tunnel and most of the boot floor to be cut out and redesigned. It's not what you'd call

TECH SPEC

1975 VOLVO 242DL

Engine

'99 Chevrolet 5.7-litre LS1 V8, Pro-Charger P1SC supercharger, intercooler, Delphi 42lb injectors, 3in Hooker headers, 3in stainless exhaust, remapped GM ECU

Transmission

Six-speed manual GM T56, Mopar 8 3/4in rear axle with 3.9:1 gears and cone locker

Suspension

BMW E46 front uprights, home-made A-arms, bespoke KW coil-overs.

Rear three-linked axle, Panhard rod and KW coil-overs

Brakes

BMW E46 330mm front discs with Porsche 996 calipers

BMW E60 310mm rear discs with Porsche 996 calipers





tubbed, it's less extreme than that, in fact you might not even notice it wasn't standard. Then again that was the intention.

Wanting to have the choice of modern wheels, and needing some monster brakes behind them to fill in the gaps between the spokes, Hocky decided to get pretty radical with his suspension choices. 'By using BMW front suspension and axles with BMW bolt pattern I could choose from a huge selection of wheels. Up front I used 04 BMW E46 spindles and made to order KW Competition double adjustable struts with KW adjustable top bearings. The steering is Volvo power assisted but the A-arms are my own.'

You're probably thinking that a ground-up project of this scale took Hocky the best part of a decade. And that's where you'd be wrong. Finished in July last year the entire build from a stock 242 and pile of boxes took Hocky exactly one year,

finishing it on the day his wife gave birth to their second child. That's an awful lot to pack into one year, but they do say there's not much else to do on those long, dark Scandinavian evenings!

Having finished the car mid summer, and despite the new addition to his family Hocky headed straight to Mantorp Park, mecca for Swedish petrolheads to see what his creation could do and ended up having a pretty eventful day.

'Then I was a total novice when it came to driving on a track. Though things went better the harder I sent the shocks and sway bar I learned that my tyres and me are the weak spots for track use and it nearly ended in disaster on lap two when I lost it and hit the guardrails. Luckily the 242 has bumpers designed with safety in mind and although the front bumper was pushed an inch into the car the mountings are designed to take the impact saving the car. Thanks God for enormous Volvo bumpers!

By the time I returned to Mantorp the suspension was better adjusted and I felt more confident. You should have seen the looks of the faces of the guys in a Porsche and Dodge Viper as I flew past them on the main straight!

Hocky reckons we'll be seeing a lot more fusions between European and American car cultures; European bodies with American engines, or the other way round. He's already thinking about building a twin turbo Chevy LS9 powered Plymouth Barracuda with all-wheel-drive or maybe putting an LS9 in the Volvo. Roll on next winter, he'll have it built and on the road by the spring!

1. Dotz Roadster rims: 8x19 front and 10x20 rear. BMW 5-series discs with Porsche 996 calipers.

2. Standard GM ECU remapped to suit blower.

3. Rear wheel wells widened to fit wide rubber.

VOLVO & SAAB PARTS

Huge Selection of Volvo & Saab Parts, Available Online

- Performance ECU upgrades, simple self install via OBD connector, tune and detune as required.
- Large selection of upgraded suspension kits and components by Koni, Bilstein, Kilen, Powerflex etc.
- In addition to our vast selection of all types of performance upgrades, we also carry large stocks of all types of genuine & aftermarket parts and accessories at very competitive prices.

For ALL of your Volvo and Saab needs be sure to visit our online store, and save money today!

www.PartsforSaabs.com
or
www.PartsforVolvos.com

PFS Parts Ltd., Unit 3 - Tower Works, Well Street,
Finedon, Northants, NN9 5JP.
Tel: 0844 800 2741 / 2742 or email sales@pfsparts.com



Installing a new engine management or ignition system on your car, bike or truck? Need a toothed trigger wheel for your installation? Here at trigger-wheels.com we have all the parts to make your installation as painless as possible.



- Megajolt 3D distributor-less ignition systems from **£117.99**



- Megasquirt/Microsquirt - 3D mappable Ignition/Injection ECU from **£299.99**



- Wideband lambda sensor systems from **£137.99**



- Vehicle specific trigger wheel kits from **£34.99**
- Universal 36-1 tooth trigger wheels from **£19.99**



- Coilpacks and ignition kits
- Sensors and connectors
- And much, much, more - visit our web site for our full range

All prices include VAT

www.trigger-wheels.com
sales@trigger-wheels.com
Fax: 0870 123 6391

Trigger-wheels Ltd. Company registration number: 06162870. VAT Number: 934 9189 83