



The Low & Short Of It

Simon Drew

- ▶▶ Age: 38
- ▶▶ Occupation: Proprietor of The Mini Works
- ▶▶ Single or hooked-up? Hooked-up to Gillian
- ▶▶ Fave grub: Pesto, over pasta with tuna
- ▶▶ Cars you'd love to own: Works 1071 S Mini
- ▶▶ Dream job: Got it, running The Mini Works
- ▶▶ Lottery win dream: Pay mortgage, better garage, help friends
- ▶▶ Mini obsessed? Yes
- ▶▶ Minisomnia? Yes
- ▶▶ Maccy D's or BK? BK
- ▶▶ Fave drink: Coffee
- ▶▶ You in three words: Fussy, mad, determined



When is a Mini Sprint not a Mini Sprint? When it's a Hawk Sprint of course...
Words: Andy Butler
Photos: Zoë Harrison

The numberplate and rear lights say 'early Mini' but where are the door hinges? And why doesn't it look tall enough? While some folks think it looks like a Sprint, not many know it's actually a Hawk



Simon isn't sure what make the seats are, but he hasn't seen them before. But mounted very low, they still give good headroom under the dropped roofline

Rear seat trimming echoes the front seats perfectly

HISTORY LESSON

Neville Trickett's Mini Sprint was a low frontal area Mini racer that arrived on the scene in 1965. The lowered bodywork and sloping windscreen were aimed at reducing the car's drag characteristics, but although the mods worked, changes to the Saloon Car racing regs meant the Sprint was unable to race because it no longer matched the regulation Mini silhouette. Having lost its main reason for being, only a few Sprints were commissioned and built. Gerry Hawkridge's Hawk Sprint was built in glass-fibre and fitted in the Hawk company line-up alongside their other replicas until, predictably, legal pressure from BMW and Rover forced them to halt production in the mid 1990s. The shell was based on a Mk3 Mini, hence the concealed door hinges, but early touches like the Mk1 tail lights were used to help the replica look more authentic.

Typical Mini Works interior – super clean, very period looking and just made for fast driving

Here's a new category of vehicle refurbishment for you: Retrofication. Retrofication's what you do to something that's been overly updated, to take it back to how it should be, but without having to fully restore it. To illustrate the technique, here's Simon Drew's 1966 Hawk Mini Sprint Cooper. What was wrong with it? "It was a hotch-potch, it looked like something from the 1990s. It had 12-inch wheels and a modern interior, but it was sound enough so I just retrofied it."

Although Simon has wanted a Hawk Sprint for a while now, getting this one was a bit of a surprise. "A guy in Falkirk phoned me out of the blue, wanting it to go to a good home." And if you've heard of The Mini Works' reputation, you'll know going to Simon's meant that's exactly what the Sprint has now got. Bodily, it just needed a good clean, and Simon repainted the bodyshell's white roof to black.

While his intention was to gently morph the Hawk so that it had the correct 1960's vibe, the fact it wasn't from that era meant he didn't have to stick to an original 1960's specification. So, out came the engine in favour of a fire-breathing 1380 with all the toys. The block has been overbored for a set of 73.5mm Omega pistons, which in turn are attached to lightened conrods that reciprocate

from a heavily modified crank.

MED did the machining work on the rods and crankshaft, making the bottom end strong and safe so that running up to 8,000rpm doesn't cause it to fly apart – and hitting that rev point is something Simon regularly does when he's having fun on track. An MED-modded ultralight flywheel also means speedier throttle response. To make sure none of this parts company from the block, there's a sturdy steel main-bearing strap bolted on for good measure.

The bombproof bottom end is topped off by a heavily-ported cylinder head that contains big valves that are kept under control by a set of Iskenderian springs. A Kent 286 scatter cam does the valve popping, driven by lightened Special Tuning duplex timing gear. Simon has dialled in the cam timing by fitting an offset Woodruff key in the crank nose, and while it is more of a pain to have to rebuild the timing gears to check if the offset is correct, he prefers this system to using an adjustable Vernier gear. "It's lighter, simpler, and the timing can't slip."

Fuelling the monster motor is way beyond an HIF44, but Simon's stayed true to SU by fitting a pair of modified HS4s. The tweaks haven't been done for performance reasons though – they had to be modified to stop them interfering with

Dash panel was a nightmare to fit because the dash was half-piped, but it looks good now it's in position. Speedwell tach has no red line



Proper Springalex steering wheel really adds to the 1960's vibe

» the Hawk's low-level bonnet. This involved machining down the dashpot-damper mounting thread by about 0.25-inch and taking a similar amount off the damper piston rod to match. And to ensure the smoothest possible airflow, the carbs are running with genuine Special Tuning rampipes instead of filters, and the inlet manifold has been fully gas-flowed, too.

The lowered body height also meant the radiator has had to be slightly relocated to cope, but Simon has made up a new cowling and bracket to allow a standard-sized core to sit lower and provide sufficient clearance rather than resorting to a shorter rad. The four-blade fan has had to be cut down, though, but it still seems to be working well enough, and the motor doesn't bubble up.

To keep the sparks firing exactly when required, Lucas electronic ignition was fitted instead of relying on points that might cause issues at higher revs, and sparks for the NGK plugs are provided by a Flame Thrower coil. The exhaust side of the process is also well catered for with a Manifold Stage 2 LCB partnered by a reverse-megaphone system with a single-silencer box.

The set-up is good for around 100bhp, and with a lightweight glass-fibre body to chuck around, Simon's Hawk really lives up to the Sprint name. But even though he has gone a bit mad with this motor, he isn't finished yet. "I'm planning on doing a full, crazy, 1460cc motor with 8-port set-up and Tecalemit fuel injection!"

To give the gearbox a fighting chance of hanging together under such a grunty lump, Simon's given it the full straight-cut treatment. So, although it is equally strong, there is the usual downside. "It's pretty noisy – the drop gears are quite chattery," he says, with typical understatement. As you'd expect, the diff has also been uprated to a cross-pin Mini Spares Evolution unit, so that should be able to handle the grunt without exploding.

Dropping back to 10-inch wheels has restricted Simon's choice of braking equipment, but he's managed to get reasonable anchorage by using Cooper S two-pot callipers and EBC pads that bite onto original Cooper S discs. The rear brakes are standard apart from a set of genuine, original Minifin drums and, judging by the way Simon can hoon around Knockhill's sinuous tarmac, the brakes are pretty good.

One thing that didn't work as well as Simon had hoped once the Hawk was back on the road was the handling. Although he had fitted the usual array of neggy camber bottom arms, adjustable tie-bars, Hi-Los and adjustable dampers, the car was twitchy and unpredictable, but the fault proved easy to diagnose and cure. "I'd fitted

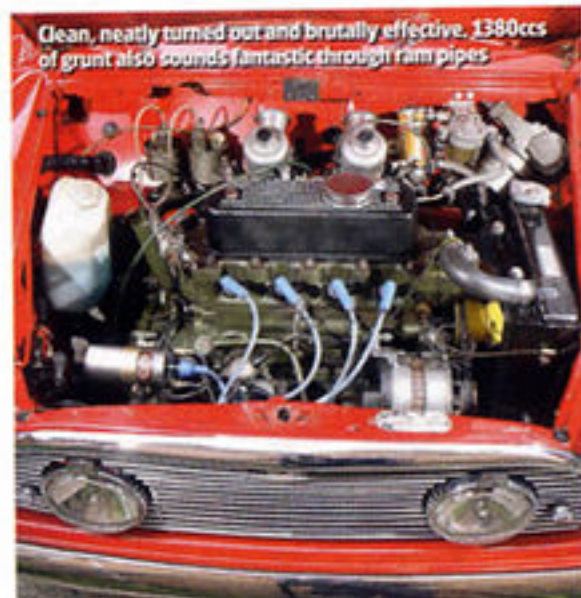
3.5-inch Cosmic alloys, but they were scary with 100bhp to play with!" A set of wider, 4.5-inch Rose Petal alloys have sorted the waywardness.

Interior work was limited to changing the seats for something more period looking, and fitting an older-style dashboard. The seats needed lower mounts to give anything like decent headroom, but fitting the Broadspeed dash proved to be a real pig. Now, even though the speedo and rev counter aren't wildly accurate, Simon can't face removing them to sort the problem!

He is planning on adding to the 60's theming though, as well as building that mental engine, so it looks like plenty more people are going to be totally blown away by how quick a slightly-squashed Mini can travel. So, if you're driving quickly around Edinburgh and a low-line Mini comes hurtling up behind you, get ready to be out-dragged.

Simon would like to thank: Kevin Murray for help and support; Peter at Pentland Powder Coating (www.pentlandpowdercoating.co.uk, +44 (0)131 448 0098); Jamie Muller (+44 (0)7706 175089) for help with the painting; MED Engineering (www.med-engineering.co.uk, +44 (0)1162 461641); Owen Cooper and also Robin Gray for help.

"The set-up is still good for around 100bhp..."



Clean, neatly turned out and brutally effective. 1380ccs of grunt also sounds fantastic through ram pipes

Technical Specification

Hawk Sprint

» **Engine:** A-series 1275cc block . 1380cc . Omega 73.5mm pistons . MED lightened conrods . MED heavily-modified crankshaft, lightened, wedged, knife-edged, cross-drilled, back-drilled, bladed, Tufftrided . MED ultralight flywheel . modified high-capacity water pump . four-core radiator . cut-down four-blade fan . Stage 3 12G940 big-valve cylinder head . Kent scatter 286 billet camshaft . Special Tuning ultra lightweight duplex timing gear . offset Woodruff key . 1.5:1 roller rockers . Iskenderian valve springs . phosphor-bronze valve guides . twin SU 1½-inch carbs (cut-down dashpots for bonnet clearance) . Special Tuning rampipes . Facet race fuel pump . Filter King fuel pressure regulator . gas-flowed inlet manifold . Manifold Stage 2 LCB exhaust manifold . reverse megaphone single-box exhaust . Lucas electronic distributor . Flame Thrower coil . NGK plugs, race leads

» **Gearbox:** AP Racing bonded clutch plate, Orange diaphragm . rebuilt four-speed gearbox . Mini Spares full-synchro straight-cut gears . drop gears . Evolution cross-pin diff . 2.9:1 final drive ratio

» **Suspension:** Front: Standard Mini dry subframe, Mini Spares uprated bushes . bespoke three-degree negative camber bottom arms . adjustable tie bars . Hi-Los . Spax adjustable dampers . rear: dry subframe . Mini Spares uprated bushes . adjustable negative camber plates . Hi-Los . Spax adjustable dampers

» **Brakes:** Front: Cooper S 75-inch discs . two-pot callipers . EBC Green Stuff pads . rear: rebuilt to standard spec . new cylinders, linings . Minifin drums . non-servo assisted . original pedal box . Aeroquip hoses . Kuniifer brake lines . DOT4 fluid

» **Wheels/Tyres:** Cooper Car Company Rose Petal 4.5x10-inch alloys . Dunlop R8 165/70x10 tyres

» **Interior:** Race-style glass-fibre seats on lowered mountings . Rover carpets . Broadspeed dashboard . Smiths Works-type 120mph speedo with tripmeter . Smiths capillary-type water temperature gauge . oil pressure gauge . Speedwell tachometer . Springalex steering wheel . one-off door cards . shortened door handles . modified, retrimmed rear seat

» **Exterior:** 1966 Austin Mini Cooper reshelled . 1990s Hawk Mini Sprint glass-fibre shell . deseamed, lowered body . Tartan red . black roof . Lucas headlamps . Lucas quartz-iodine five-inch spotlamps . Benelite grille . single door mirror . script boot badges . twin fuel caps . clear indicator lenses . grille buttons . numberplate on bonnet



Right-hand tank is a useful addition given the miles Simon does in this Sprint replica. 11-gallons total capacity



Not just a roof drop, Fridovitz's Sprint concept required painstaking styling to keep that elusive Mini look and the Hawk gets close to it