

# Giving It The Works

A mint, bog standard Cooper 1071 S is a thing to be treasured, cosseted and polished, not hurtled around the Scottish Highlands or across half of Europe just for the fun of it. Maybe someone should tell Graeme Allan...

Words: Andy Butler

Photos: Zoë Harrison

## Graeme Allan

- ▶▶ Age: 46
- ▶▶ Occupation: Civil engineer
- ▶▶ Pets: A parrot and some fish
- ▶▶ Single or hooked-up?  
Hooked to Sheena
- ▶▶ Sprogs: Two
- ▶▶ Car you'd love to own:  
Aston Martin
- ▶▶ Cars you wouldn't want to own? Ford Ka
- ▶▶ Mini obsessed? Yes
- ▶▶ Minisomnia? Yes
- ▶▶ Fave drink: Zinfandel red wine
- ▶▶ You in three words: Happy go lucky







Production of original 1071 S was from Jan 1963 to August 1964. Right hand tank, sump guard and 4.5inch wheels would have been on the options list



All original 1071 Ss had the dry suspension and were the first Minis to appear with 7.5inch front disc brakes and vacuum servo as standard



**G**raeme Allan's Minis are a bit like London buses – you don't see any for ages, and then a couple come along almost together. But, unlike London buses, which are dirty, smelly, Graeme's Minis are all different. We've already seen his grey Cooper 1275 S in the December '08 issue. This is his 1071 S, and he's got a 970 S and an 850 tucked away in his garage, awaiting restoration. The 1071S, as you surely know, was the first of the Ss, launched to the public in January 1963. In June, Aaltonen took one to a win class/category in the Alpine. They lend themselves to dissimilar use. While the

1275S is just for the odd trip around the Highlands, this red rocket gets a much tougher ride. Last year it carried Graeme and Kevin Murray on the Mini Cooper Register's Minis to Monte event, racking up over 5000 miles in 16 days, with the bare minimum of maintenance.

And it was hard use, too. "It was all on-road, but some of the roads in Eastern Europe were like off-road stages, and the brakes were on fire after a descent down the Col de Schlucht!" Graeme notes with glee. But, as a testament to the brakes' quality, they never missed a beat. "We just jumped back in, drove along to let



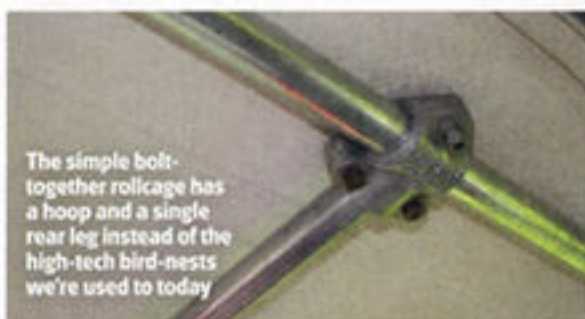


Where do you start? Graeme's Works style office is a busy place, and exactly as it would have been more than 40 years ago

#### The First Cooper S

After the success of the first 997cc and 998cc Coopers, the 1071 S arrived in March 1963 and took things to the next level. It used an engine spec similar to John Cooper's 1100cc Formula Junior racing development so had more lively performance than the regular Cooper, and better servo-assisted brakes, too. It proved to be a hit with the motoring press and car buyers alike.

During the 1071 S's 18-month production life, Austins were marginally more prolific than Morrises – 2135 versus 1896 – and apart from the tiny S badges front and rear and ventilated wheels, they shared the Cooper's two-tone colour scheme. The model was replaced by the 1275 S, which appeared in early 1964, although much of the 1964-1965 970 S homologation-special's running gear was carried over from the 1071 S.



The simple bolt-together roll-over protection has a hoop and a single rear leg instead of the high-tech bird-nests we're used to today



Early bucket seats didn't need harness slots because most drivers were happy enough with the old lap and diagonal seat belts

» them cool down and – hey presto! – they were good as new again.”

Graeme bought the 1071 S in early 2007 when his friend, co-driver and Mini expert Dave Greaves, found someone who was thinning down their Mini collection. Bodily, the Mini was in very good condition, but there was nothing under the bonnet, and Graeme wasn't totally convinced about the car's wiring loom. To get these minor inconveniences rectified, the car was dispatched to Simon Drew at The Mini Works just outside Edinburgh, along with an engine that Graeme had bought years previously.

Unfortunately, the engine block had deteriorated while standing idle, so another one had to be sourced. This new block was given a 0.020-inch bore (1293cc) to refresh the cylinders, fitted with Omega pistons and topped off with the original AEG163 Cooper head that had been mildly ported and polished. The standard 68.26mm-stroke crank was also reused but valve operation



When there was no more room left on the dashboard, vital switches were fitted in the door pocket panels, along with a map-reading lamp

is looked after by a Swiftune SW5-07 camshaft. “I spent a day with Kieron Fry on the M2M event in 2006, and his car was fitted with one,” Graeme recalls. “I was well impressed with how it went, so I went out and bought one myself.”

As the engine was going to be somewhat more powerful than the original 70bhp and the

car wasn't going to have an easy life, Simon rebuilt the gearbox with a Mini Spares straight-cut gearset and cross-pin diff. Standard Cooper S drop gears have been retained and the diff has a

## “Cooper S drop gears have been retained”

3.765:1 ratio that should give a top speed nudging a theoretical 100mph.

As mentioned earlier, the braking system is now very good, if a little different from standard. Mini Sport vented discs, EBC Green Stuff pads and rebuilt original 5.5" vacuum servo. The rear drums have been modified in Works style by drilling holes in the face of the drum to aid cooling. And although finned drums might be better at shedding heat, Graeme comments that he has »



Things could get rough in a rallying Mini, so they made padding to stop ugly bruises from clunking the Mini's hard-edged interior

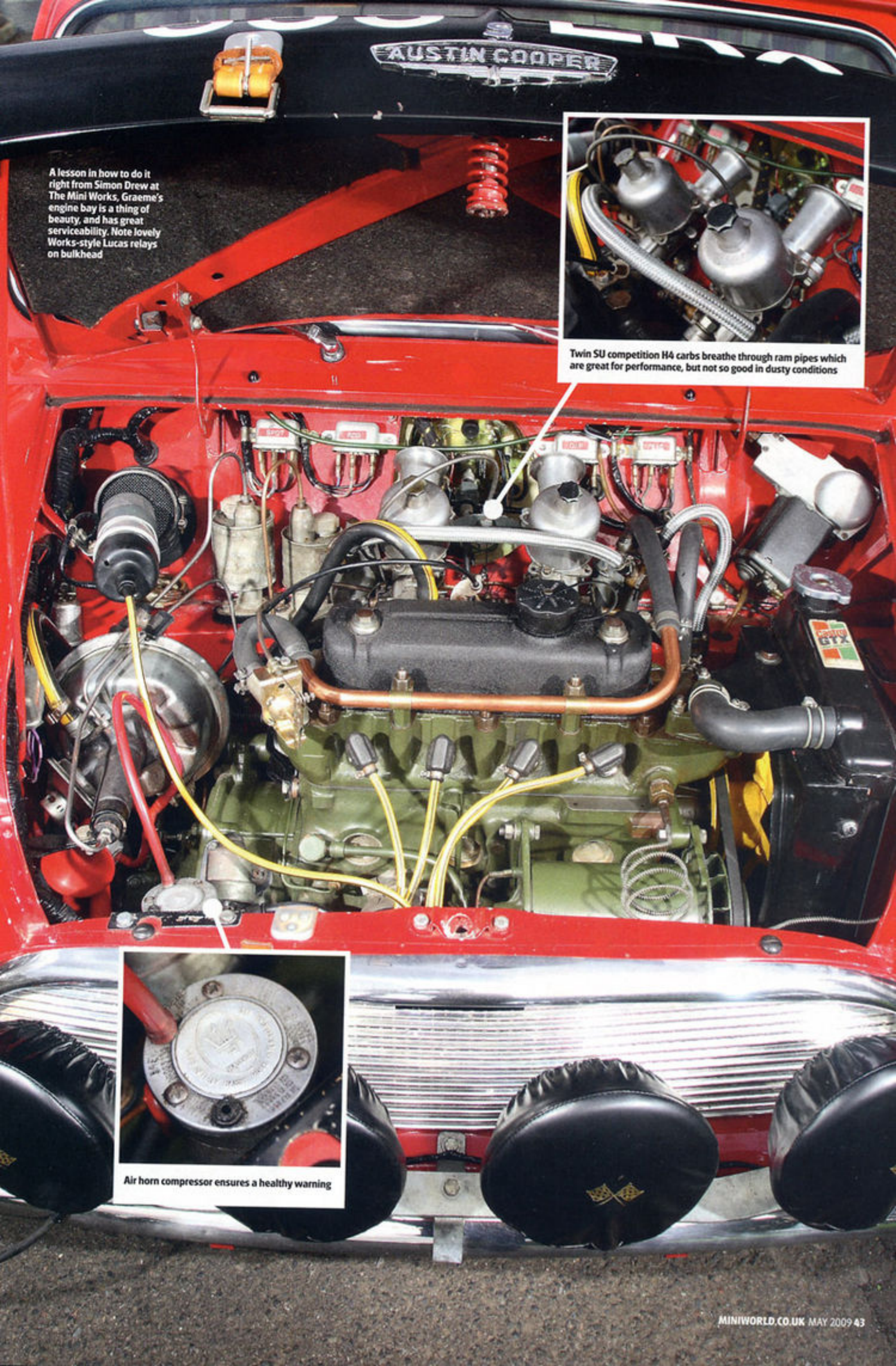


AUSTIN COOPER

A lesson in how to do it right from Simon Drew at The Mini Works, Graeme's engine bay is a thing of beauty, and has great serviceability. Note lovely Works-style Lucas relays on bulkhead



Twin SU competition H4 carbs breathe through ram pipes which are great for performance, but not so good in dusty conditions



Air horn compressor ensures a healthy warning



Looking impossibly thin, even with optional 'wide' 4.5-inch rims, it might have been mistaken, at a glance, for a mere 997 or 998 Cooper by unsuspecting competitors



All it needs is a 1960's emergency fuel bag and it'll be perfect



Seat-base spare wheels keep the weight within the wheelbase and are easily reached should the need arise in the middle of a stage

» chosen to use the original rather than after-market stuff here.

Hi-Los have been fitted and gas dampers but there is still some work to be done before he's completely happy with the set-up. "We fitted Kayaba dampers for the Monte event but the car kept bottoming out, so it looks like we will upgrade to Koni yellow dampers."

As you can tell from the relatively little work that has had to be done, the car was in excellent condition when he took delivery. And since he's owned it he hasn't needed to do any body repairs either. That doesn't mean that it didn't have some major bodywork at an earlier point in its life, though. Whoever did the work knew what they were up to. "I think it must have been reshelled in the past, especially if it had been rallied," he comments. "The shell is a proper Cooper one, probably from around 1962 or three."

In fact, apart from the replacement engine, the only other area that needed real attention was the interior. Although it had a few nice touches like the additional dash panels, a few bits were missing, like the rare and expensive stop watches and Halda Twinmaster. Fortunately the barter system is alive and well, and Graeme managed to swap a pair of Microcell seats for the requisite Heuer chronographs.

To sort out the wiring loom, Simon Drew of The Mini Works just had to strip back the covering, trace the dodgy areas and replace them, and then get busy with the soldering iron to make sure all the connections were up to scratch. He also

rewired the navigator's panels, added the heated screen and fitted the correct switch.

Once the S was back together it received something of a baptism of fire when Graeme and Dave took it on the Mini Cooper Register's Minis to Ecosse event, which crammed in 1100 miles of awesome roads in just five days. Apart from a blown water pump gasket, the tour was more notable for Dave opening Graeme's eyes to how quickly a Mini could be pedalled. "On an open road around the north-west of Scotland, he really showed me how a Mini can handle."

But it seems that wasn't enough of a lesson, and when Graeme was on the MCR's Minis to Monte tour, Dave met up with him in the South of France where you'll find all the famous Monte rally stages lined up for you to try yourself. And they come complete with those frightening drop-offs and

the promise of black ice or a huge camper van hidden around the next corner. It's a interesting experience. "I handed him the keys again so he could have another thrash around with some of the locals," Graeme remembers. "They were well impressed with his driving and so was I – it came back in one piece!"

Graeme would like to thank: Kevin Murray – the calming influence when things are going wrong; Simon Drew at The Mini Works (+44 (0)776 4196530, [www.themineworks.co.uk](http://www.themineworks.co.uk)) for building a fantastic engine and gearbox; Dave Greaves for finding the car in the first place, and for showing him how a Mini can perform.



Graeme and Dave share the driving duties

## Technical Specification

Reshelled 1964 Austin Mini Cooper 1071 S

» **Engine:** Original 1071cc motor overbored 0.020in . Omega pistons . stock rods, crank . Swiftune SWS-07 camshaft . ported and polished cylinder head .

standard Cooper S valvetrain . twin 1½-inch SU carbs . ram pipes . high-performance two-core radiator . four-blade cooling fan . standard Cooper S

distributor . HAL2 coil . Champion spark plugs . Special Tuning plug leads . original inlet manifold . Manifold Stage 2 Cooper exhaust manifold . Manifold reverse-cone megaphone exhaust system

» **Gearbox:** Standard Cooper S clutch . rebuilt original four-speed gearbox . Mini Spares straight-cut gears . non-synchro first gear . Cooper S drop gears . Mini Spares cross-pin diff

» **Suspension:** modified dry suspension . Hi-Lo adjustable ride height system . Kayaba dampers . standard rubber cones

» **Brakes:** Front: Cooper S callipers . EBC Green Stuff pads . Mini Sport vented 7.9in discs . rear: standard Cooper S drums drilled to Works pattern . rebuilt original Cooper S servo . DOT5.1 brake fluid . Aeroquip brake hoses

» **Wheels/Tyres:** Cooper S 4.5x10-inch steel wheels . 145/70x10 Dunlop Weathermaster Mud/Snow tyres

» **Exterior:** Believed reshelled into genuine 1960's Cooper S bodysell . Tartan Red, black roof . cellulose paint . Special Tuning front lamp bar . two spot lamps, two foglamps . Stadium A-pillar seam mirror . Cibie headlamps

» **Interior:** Microcell front seats, Brocade rear seat and trim panels, Irvin lap/diagonal seat belt, replica door cushion pads, Works-type additional dash panels . Smiths instruments . Halda Twinmaster trip computer . Heuer stopwatches . Moto-Lita steering wheel . heated front screen . Works-style rear screen demister



Removable plastic lamp guards are really useful for when you catch the slower guys



Graeme's Minis live in his fantastic extended garage and shed

