

Inspired by *Downton*, Simon Drew has transformed a humble 1960 Morris Mini Minor  
Words and photos: Rob Hawkins



## Destination Downton

**W**hen Simon Drew paid £500 for one of the first Mini Minors, back in 1989, he'd clearly bought a bargain. "The original paintwork was getting scruffy, the engine bay was painted in black Hammerite and one of the seats was supported with a bit of wood," he recalls. But this wasn't an abandoned project; there was still some life left in the MOT and the car was drivable.

His initial plans were extensive. A full restoration was on the cards but as he confesses, "The car sat for over 10 years in bits, being moved from garage to garage. It even survived a storm during which the whole roof blew off the garage, leaving the car open to the elements!"

It wasn't until 2001 that the Mini Minor restoration began and finished. Inspired by *Downton's* period tuning parts, Simon's intentions were far from a basic rebuild.

"I tried to build the engine how they would have done it back then, using what was available in that era," he explains.

Simon took the standard 848cc A-Series engine and had it bored out to fit Powermax +0.040" 998cc pistons. He wanted a high-revving motor, so he fitted 998 conrods, the Powermax pistons and he also had the block decked by about 60-thou, to bring the pistons flush with the block.

He chose a Cooper 997 camshaft because "It was considered to be one of the hottest BMC cam profiles of that time. Just the right duration to liven up the 850." He spotted one potential problem before fitting this camshaft, however. The original 850 block used only one cam bearing; the other two journals are

merely cast iron from the engine block itself. The up-rated cam would create more load, so three bearings were essential. The only solution was to have the block line bored for £200 to be able to fit the two extra bearings.

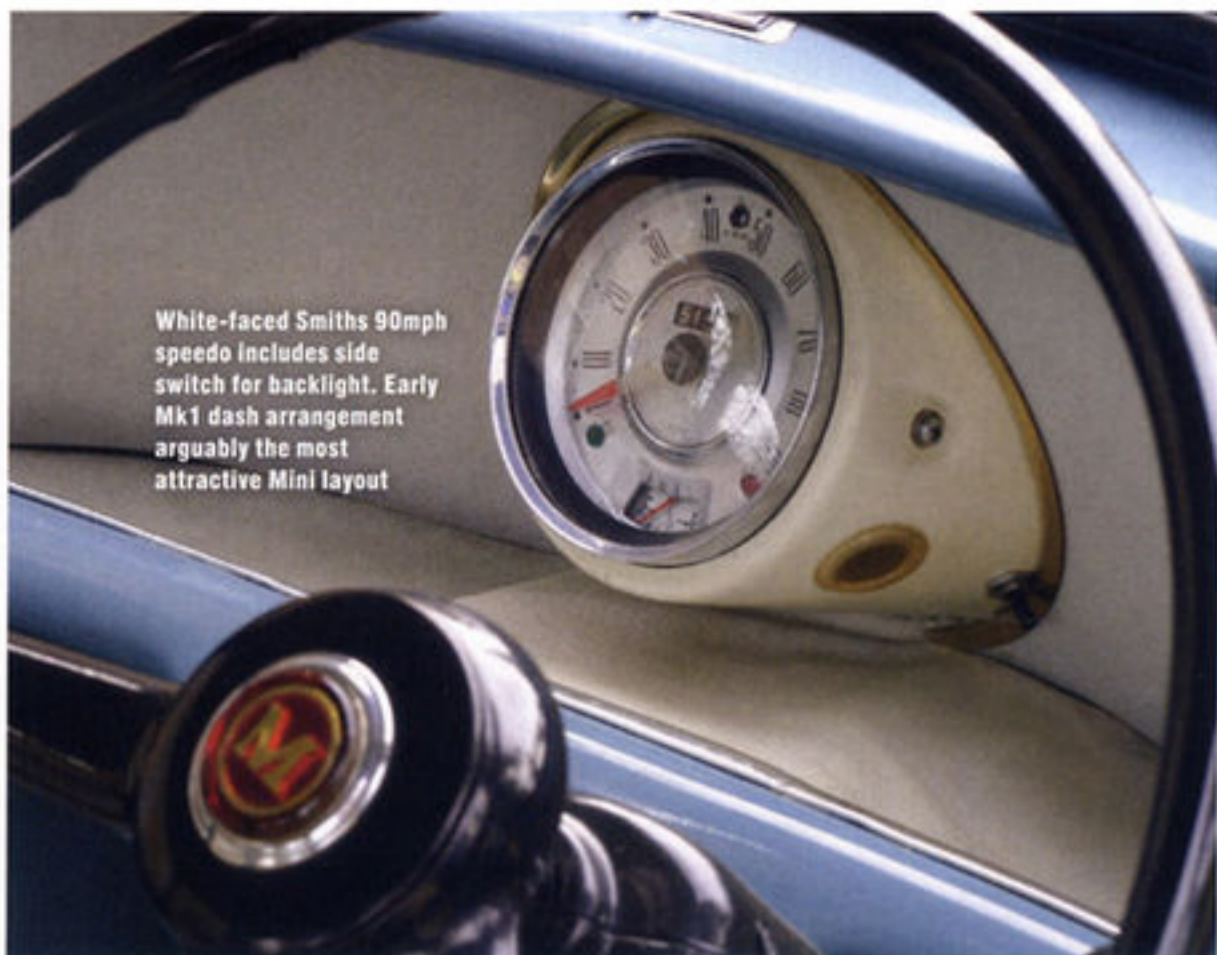
A genuine 12G202 Downton cylinder head was found. "It had done the rounds on various A-Series engines used by the legendary Eric Patterson, who campaigned and raced

**"The speedo's needle will go round past the fuel gauge"**

Minis with great success for some two decades," says Simon.

The head was built up to Stage 2 spec, with porting and gas flowing, and fitted with lightened Cooper S rocker gear, double springs and larger than standard valves (1.25in inlets and 1.125in exhausts).

At the bottom end of the engine, an 850 Special Tuning crankshaft was fitted. It was



White-faced Smiths 90mph speedo includes side switch for backlight. Early Mk1 dash arrangement arguably the most attractive Mini layout

wedged, balanced and tufftrided. At the front of the engine, he has fitted a Cooper S crankshaft damper. "It's a 'metalastic' crank pulley with a sandwich of rubber in between the metal and the V-pulley, almost like a small flywheel," he comments. "It's designed to damp harmonic vibrations off the crankshaft."

Fitting the crankshaft damper meant that the standard bottom radiator bracket now didn't fit, so he sourced a Cooper S type, which has enough clearance.

Other ancillaries that needed modification include the water pump. With the top of the engine block decked, a high-capacity water pump fouled the cylinder head, so he simply modified it with an angle grinder.

His quest for Downton parts was very

successful. The list includes a pair of 1 1/2in twin SU carburettors mounted on genuine Downton alloy inlet manifolds. Even badges and a key fob were sourced. Period literature and a letter from Downton showed that prices for an H4 carburettor conversion in 1966 included the cylinder head.

The restoration of this Mini Minor involved a full strip-down of the 'shell. New panels included both wings, the front panel, front floor pans, outer sills, repair sections for the inner sills, a rear valance and battery box. A coat of two-pack filler primer was applied to the repaired 'shell before finishing off in two-pack Clipper Blue.

Inside, the millboard trim for the door cards, speedo surround and rear window quarters needed to be renewed due to



No slouch... Mk1 850, with a bit of Downton tuning, could beat plenty of other more expensive cars back in 1960

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Original interior trim has been painstakingly revived. Simon made and trimmed many of his own internal panels



Smiths combined oil pressure and water temperature gauge sits underneath the dash rail



848cc A-Series was bored and decked to transform it into a high-revving 940



Glass washer bottle was bought for a bargain £10 from one of Simon's friends



Traditional floor starter pokes through wool carpets



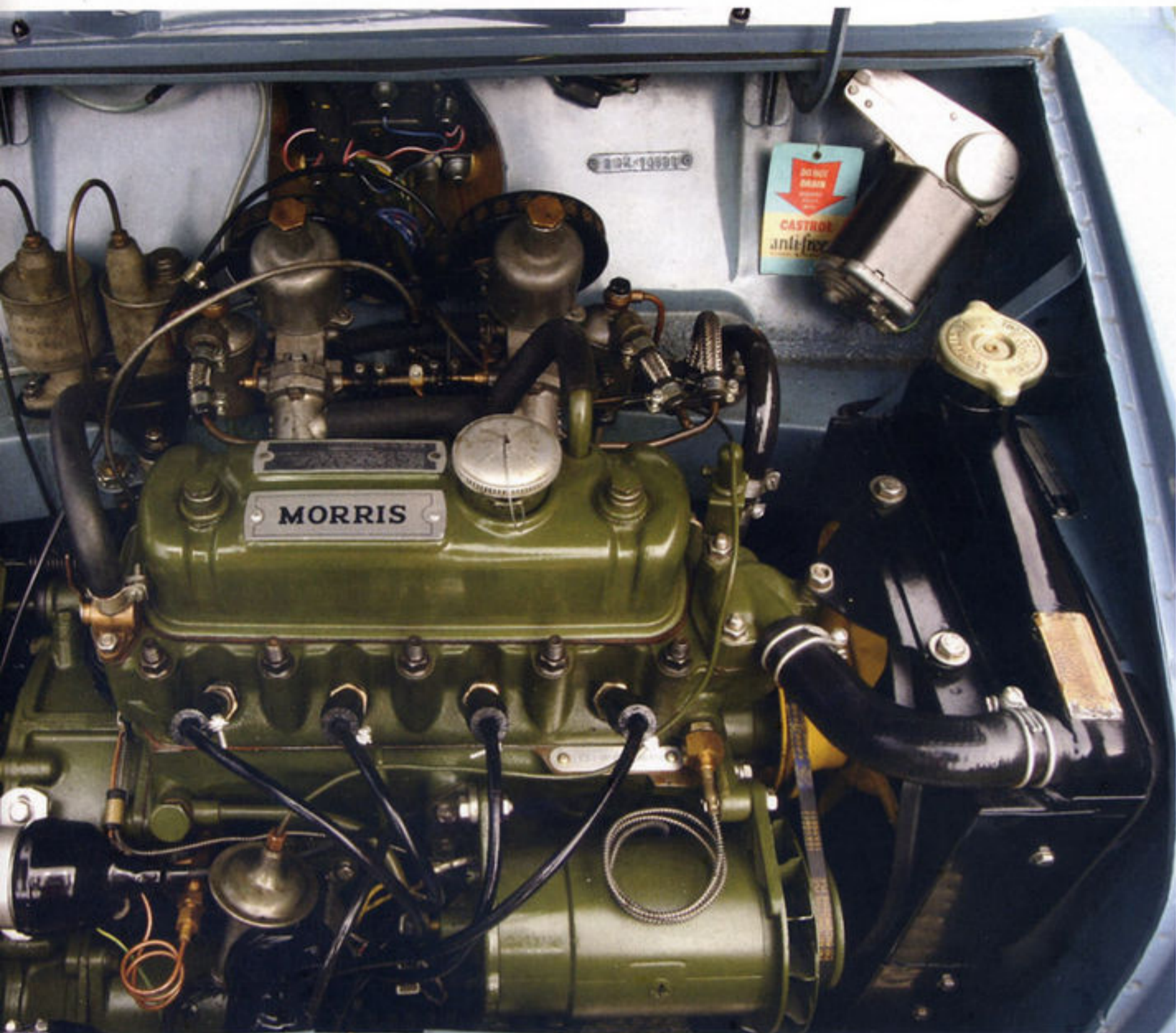
Correct spec wool carpets include driver's rubber floor mat

damp. Simon cut out his own hardboard and trimmed them up himself, using the original vinyl.

Achieving a clean but original look for an interior can be difficult. Parts such as the powder blue wool carpets with a driver's floor mat can transform a car's interior, but they're usually expensive (they cost Simon about £100). Some parts have been a steal, though, such as the glass washer bottle for

10 quid! He estimates he's spent a mere £2,000 on his Mini Minor project. Costs have been cut by doing most of the work himself, including welding, paintwork, stripping and rebuilding. Only the sandblasting and powder-coating of parts, such as the subframes and the engine machine work, was completed by specialists.

In 2002, Simon's Mini Minor 'officially' returned to the road. He'd bought a bottle



BMC tool roll was found by Simon's friend, Dave Greaves



Metal catches for the sliding windows are very hard to find, particularly the ones without the locating dowel



Simon's collection of period collectables, including BMC literature and a tin of touch-up paint. Nice stuff to see at shows

of champagne back in 1990 to cork over the car when it was finished. Luckily, the bottle remained intact and the champagne hadn't gone off when he popped the cork 12 years later!

Teething problems to date have been very light, with only troublesome points in the SU electric fuel pump and a loose engine earth strap.

Simon's got quite a collection of

Minis, so this Downton modified Mini Minor doesn't see lots of use. There are just over 2,000 additional miles on the clock since 2002. However, the low mileage doesn't stop him from making the most of his Downton modifications when he does get behind the wheel. On the road, the approximately 940cc A-Series is very lively. "The speedo's needle will go

round past the fuel gauge," he comments.

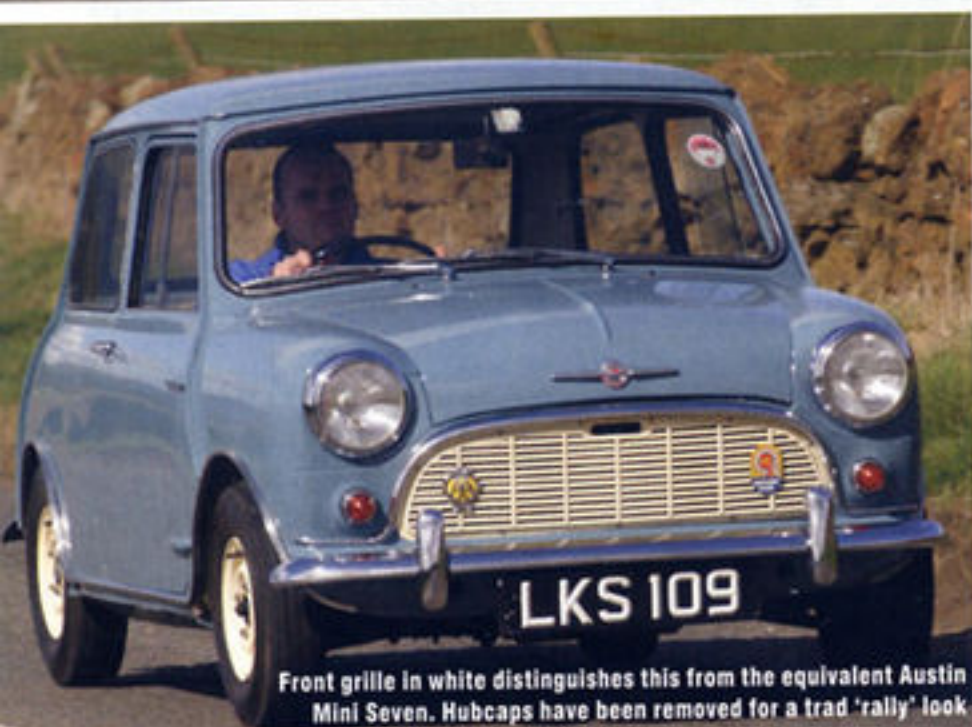
There's no tacho, but the engine is free-revving and entertainingly quick, thanks to the cylinder head mods and short stroke motor. With drum brakes and no seatbelts you don't want to push this car to the limit. Yet this Mini oozes nostalgia. You can almost imagine the time when a car like this would leave Triumph Heralds or MGs in the dust.

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Oh no... single leading shoe drum brakes all round, so no guarantee that he's going to get round this corner



Front grille in white distinguishes this from the equivalent Austin Mini Seven. Hubcaps have been removed for a trad 'rally' look



Early Minis were fitted with inner wheel arch panels to protect the A-panels from road dirt. Original steel wheels were 3.5x10in with crossply tyres. Eek!





*Simon Drew would like to thank his family for their support throughout the build-up of his Downton modified Mini Minor; Agra Engineering at Dundee, tel: +44 (0)1382 229333, for engine work; Dave Greaves for finding so many obscure parts for the project; and Eric Patterson for engine bits and for offering the benefit of his experience.*



## Simon Drew

**Age:** 34.

**Occupation:** Engineer and car restorer.

**First car:** 1966 Mini Cooper (MUP 283D) for £2,000. Sold it and don't know what happened to it. Anyone know?

**Previous cars:** Too many Minis and Citroëns.

**Current collection:** Two '62 997 Coopers, August '59 Morris Mini 850, '60 Downton 850, original '64 Cooper S, '63 1071 Cooper S, '72 Pick-up and Works spec '64 Cooper S.

**Best bargain on your Mini?**

Glass washer bottle for £10.

**Most expensive purchase for your Mini?**

Downton carbs at £150.

**Would you do it all again?** Yes.

**Favourite drink?** Café latte.

**Favourite food?**

Pasta tuna/pesto.

**Rangers or Celtic?** Not

interested in football.

## SPECIFICATION

### Modified 1960 Mk1 Morris Mini Minor

<b>Engine:</b>	940cc A-Series . Powermax 998 A+ pistons . 998 conrods . 850 Special Tuning crankshaft wedged, balanced, tufftrided . lightened Cooper S duplex timing gear . line-bored . 997 Mini Cooper camshaft, triple bearings . 12G202 Downton Stage 2 ported, gas flowed cylinder head . lightened Cooper S rocker gear . double valve springs . 1.25in inlet valves . 1.125in exhaust valves . steel valve guides . Downton twin H1 1/4in carburettors . Downton cast alloy inlet manifolds . metal gauze air filters, Pipercross internal foam . SU electric fuel pump . in-line paper element fuel filter . MG 1100 3-into-1 cast iron exhaust manifold . single silencer mild steel crimped type exhaust system, side rear exit tailpipe . two-core radiator . Cooper S bottom bracket fitted to clear Cooper S crankshaft damper . high-capacity water pump modified to clear cylinder head . Lucas HA12 coil . 850 distributor, vacuum advance, points, condenser . Lucas Competition HT leads . Champion rubber Competition spark plug caps . NGK BP5ES spark plugs
<b>Gearbox:</b>	B-type three-synchro 850 gearbox . competition baulk rings . centre oil pick-up pipe . magnetic pick-up on rear of gearbox . long magnetic sump plug . 3.76:1 final drive ratio . standard clutch . lightened and balanced backplate and flywheel
<b>Brakes:</b>	non-servo-assisted . silicone brake fluid . rubber hoses . Kuniifer brake pipes . 850 single circuit system . single cylinder drums all round
<b>Suspension:</b>	rubber cones and oil-filled dampers all round . Mini Spares up-rated poly suspension bushes . front standard top, bottom arms, tie-rods . rear standard radius arms
<b>Wheels/tyres:</b>	3.5x10 steel rims . 5.2x10 Firestone crossplies
<b>Interior:</b>	original low-back front seats, blue with grey fleck . powder blue wool carpets . original driver's floor mat . no seatbelts . Smiths white-faced 90mph speedo . Smiths combined oil pressure and capillary water temperature gauge . magic wand gear lever . twin cable handbrake system
<b>Exterior:</b>	Mk1 'shell two-pack Clipper Blue . Mk1 grille, light lenses . Morris, Downton badges



Simple tidy boot with early 5.5 gallon tank