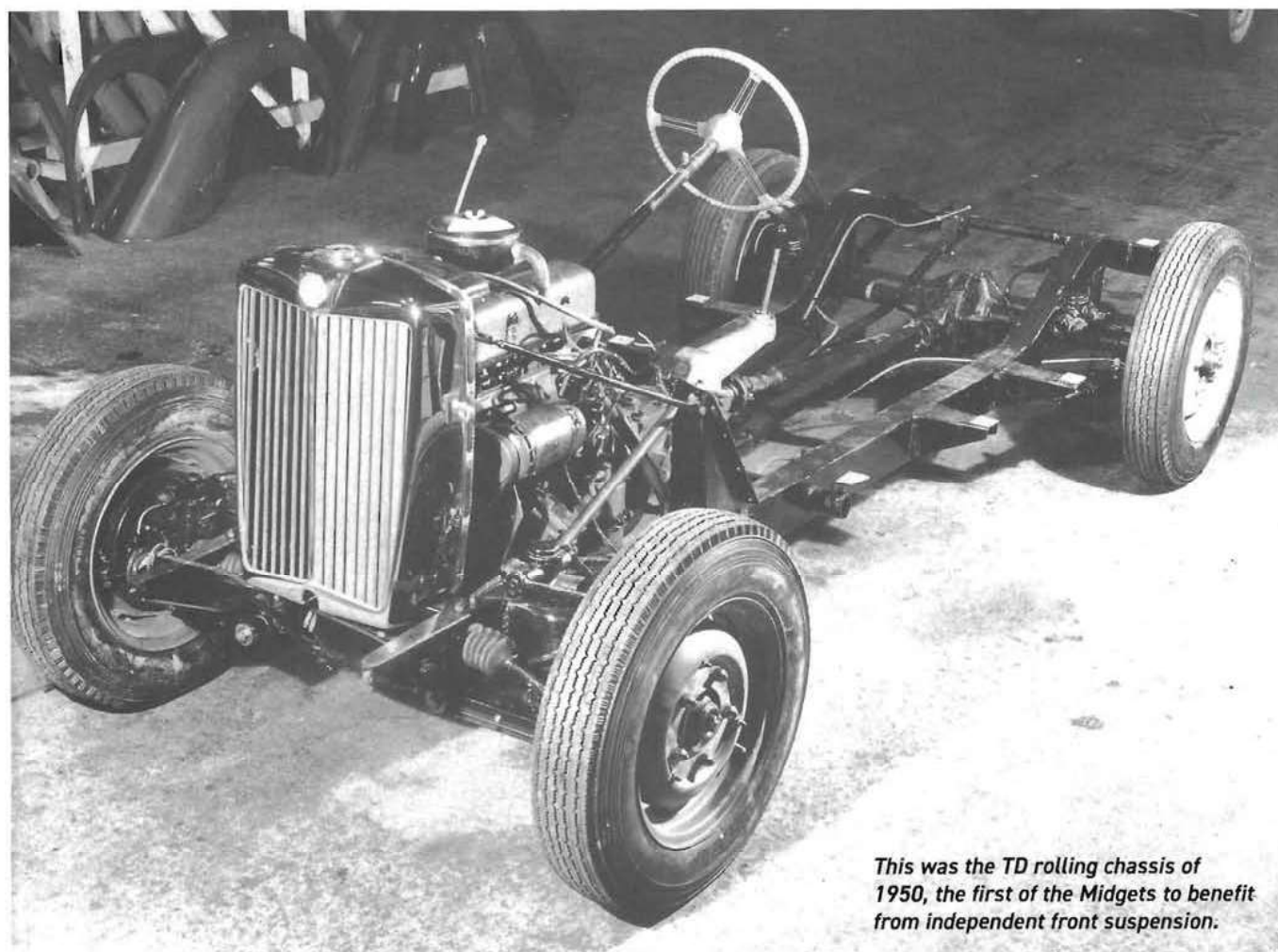


NEW FOR 1938: independent front suspension

Thanks to the work of some forward-thinking engineers, and a bit of political chance, MG was one of the first British marques with the format. Perhaps no one had expected just how far forward it would go...

• WORDS: GRAHAM ROBSON • PHOTOS: GRAHAM ROBSON ARCHIVE



This was the TD rolling chassis of 1950, the first of the Midgets to benefit from independent front suspension.

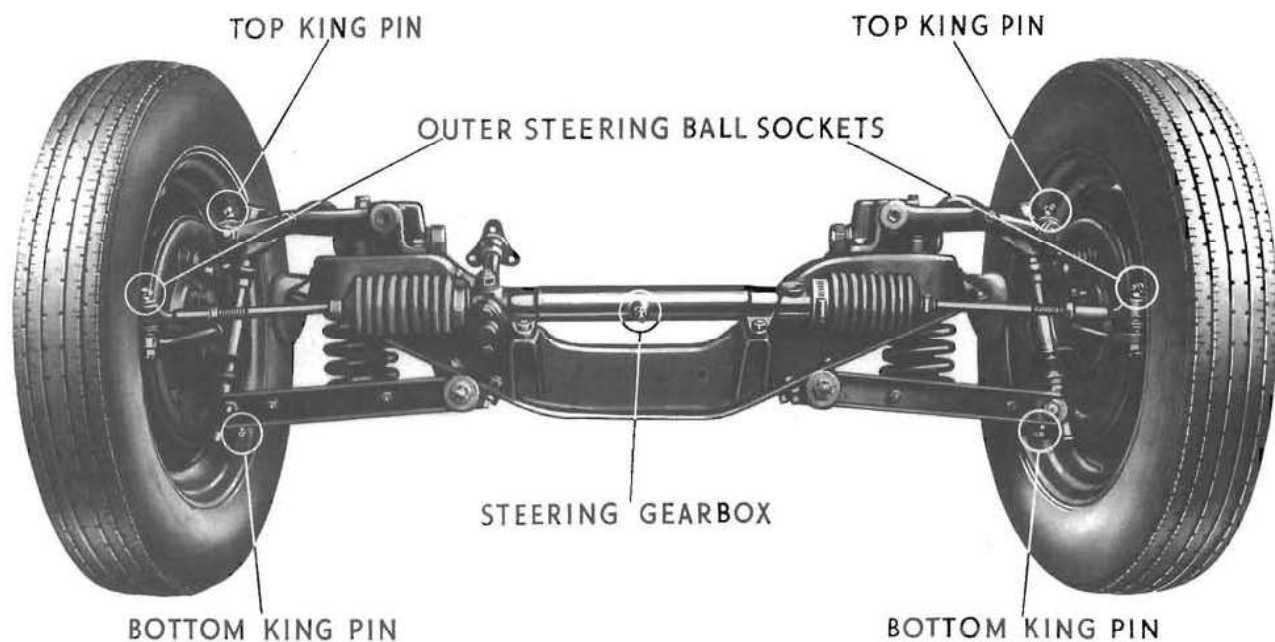
Researchers trying to dig back to the very beginning of any project often find that the mists of time get in the way; there is sometimes no clear start to a project, or to its rationale. This was my problem when I began to search for the origins of MG's famous coil-spring independent front suspension which survived for no fewer than 43 years.

Yes, of course we all know that it was first seen in public in 1947 and that the last, much-modified, of the many tens of thousands of its type fitted to the MGB, died out at the end of 1980. Where, and how, did it all begin?

This is a story that begins with the youth, the initial learning and the persistence of a Turkish-born engineer called Alec Issigonis, who would

eventually build a legendary reputation as the creator of the post-war Morris Minor and of the world-famous Mini. Originally something of a struggling engineer, Alec Issigonis started as a designer for the Rootes Group in Coventry in 1934. His official post was with Humber Ltd. which, in many ways, was the pivotal brand in the group. During this time, when one of his senior

As reproduced from an instruction manual, identifying all the features.



“ THIS IS A STORY THAT BEGINS WITH THE YOUTH, THE INITIAL LEARNING AND THE PERSISTENCE OF A TURKISH-BORN ENGINEER CALLED ALEC ISSIGONIS... ”

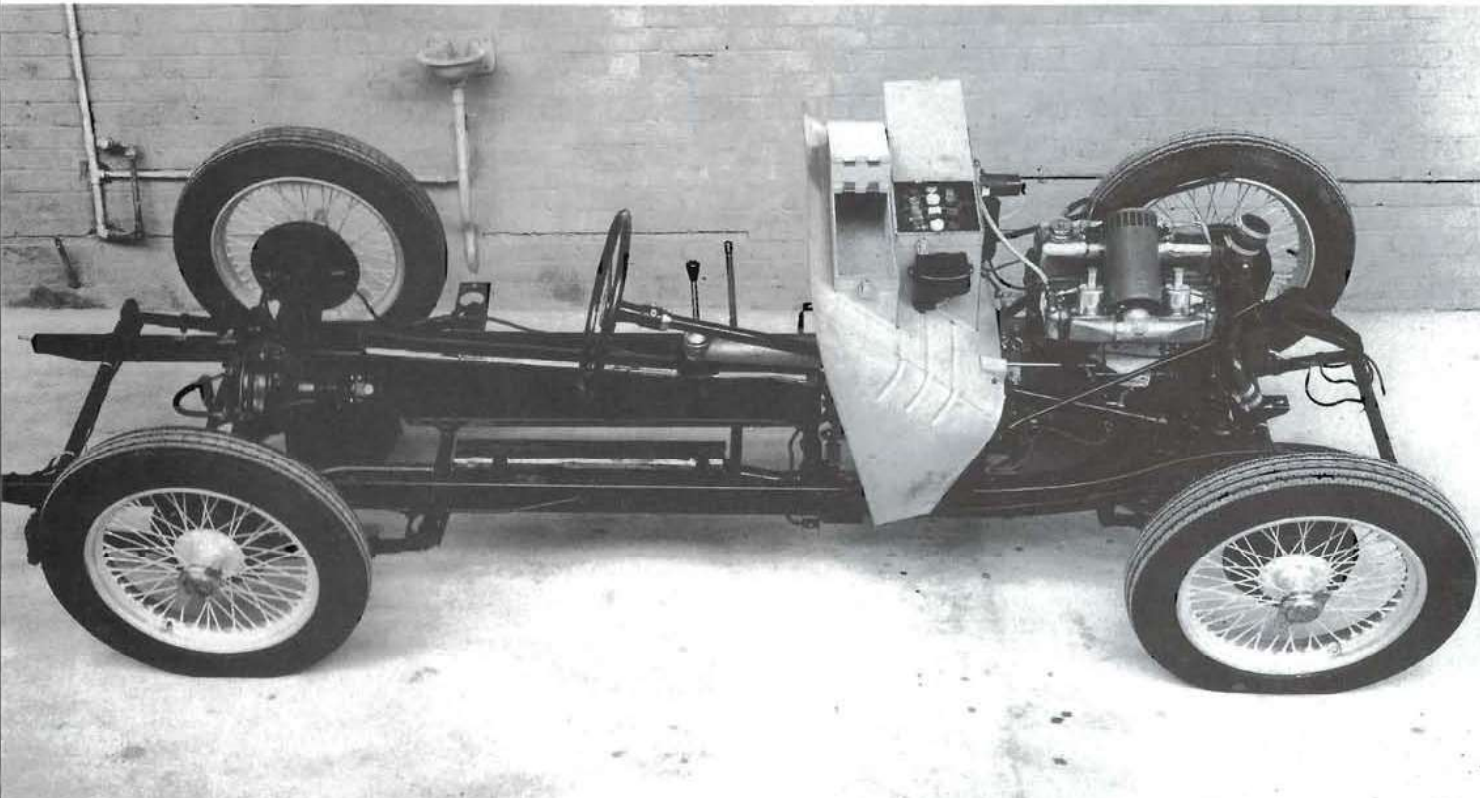


The Issigonis-designed IFS was so versatile that it featured in the famous EX179 speed record car of the 1950s.

colleagues was William Heynes (who would later become Jaguar's technical chief), he started devising a series of new-fangled independent front suspensions, experimenting with coil springs and transverse leaf springs. The rationale was that they could be useful in future-generation Hillman Minx models.

Increasingly frustrated with the somewhat conventional attitude which prevailed at the Rootes Group of the 1930s, and disappointed by the cancellation of such projects, he then set out to change jobs. He looked around and eventually accepted an offer to join the Nuffield design team at Cowley in 1936, where Morris Motors had recently been reshuffled to take overall control of the development of new Wolseley-based models, including future MGs.

Finally allotted jobs which centred around suspension engineering, he soon began to concentrate on innovations »



The TC chassis was a step forward, with shackle mounts and rubber bushes, but yet to be independent at the front.

“ ...THEY MUST HAVE BEEN ASTONISHED TO SEE IT FINALLY DUMPED FROM THE R-V8, WHICH APPEARED IN OCTOBER 1992. ”



Sweet, picturesque but old fashioned: the TC of 1945 with old-style beam front axle.

« which might push the Nuffield company into more modern projects. It was there, before long, that he was joined by ex-MG chassis designer Jack Daniels, who would eventually be his faithful lieutenant for the next thirty years. Daniels, as is now well-known, had been a stalwart of the MG design office before Leonard Lord had closed it down in 1935 and, along with his previous MG boss HN Charles, had been hoping to inject new life into the atmosphere

at Cowley. As will become obvious, this was to be heavy going.

As we now know, the two became firm friends and would work together for more than thirty years. When they started out engineering the chassis of the forthcoming Morris 10 Series M, in 1937, there was nothing to limit their vision at first. Of course, there was no official 'Product Planning Department' at Nuffield in those days to direct their efforts. Accordingly, it was almost

inevitable that they should envisage a brand-new layout.

This would not only be a coil-spring independent front suspension system but it would also feature lever arm dampers which would do double duty as upper wishbones. While the British motor industry had yet to fit a car with rack and pinion steering, this design had it especially in mind.

Issigonis, however, was always sufficient of a dreamer not to realise

“ OF COURSE, THERE WAS NO OFFICIAL 'PRODUCT PLANNING DEPARTMENT' AT NUFFIELD IN THOSE DAYS TO DIRECT THEIR EFFORTS. ”

that there might be powerful resistance to such forward-thinking enterprise. The fact is that, until this time, there had never been a Morris, Wolseley or MG production car to feature novelties like this. It seemed as if many of the senior Nuffield managers simply did not understand what was being proposed or why it should be so.

Soon there was more bad news: the original installation was brutally rejected by management, despite its engineering merit. Issigonis's boss, HN Charles, later insisted that it was not satisfactory. Issigonis would also go on to report that Nuffield management had cancelled it because they had recently seen and tried some up-to-the-minute American cars with beam-axle front

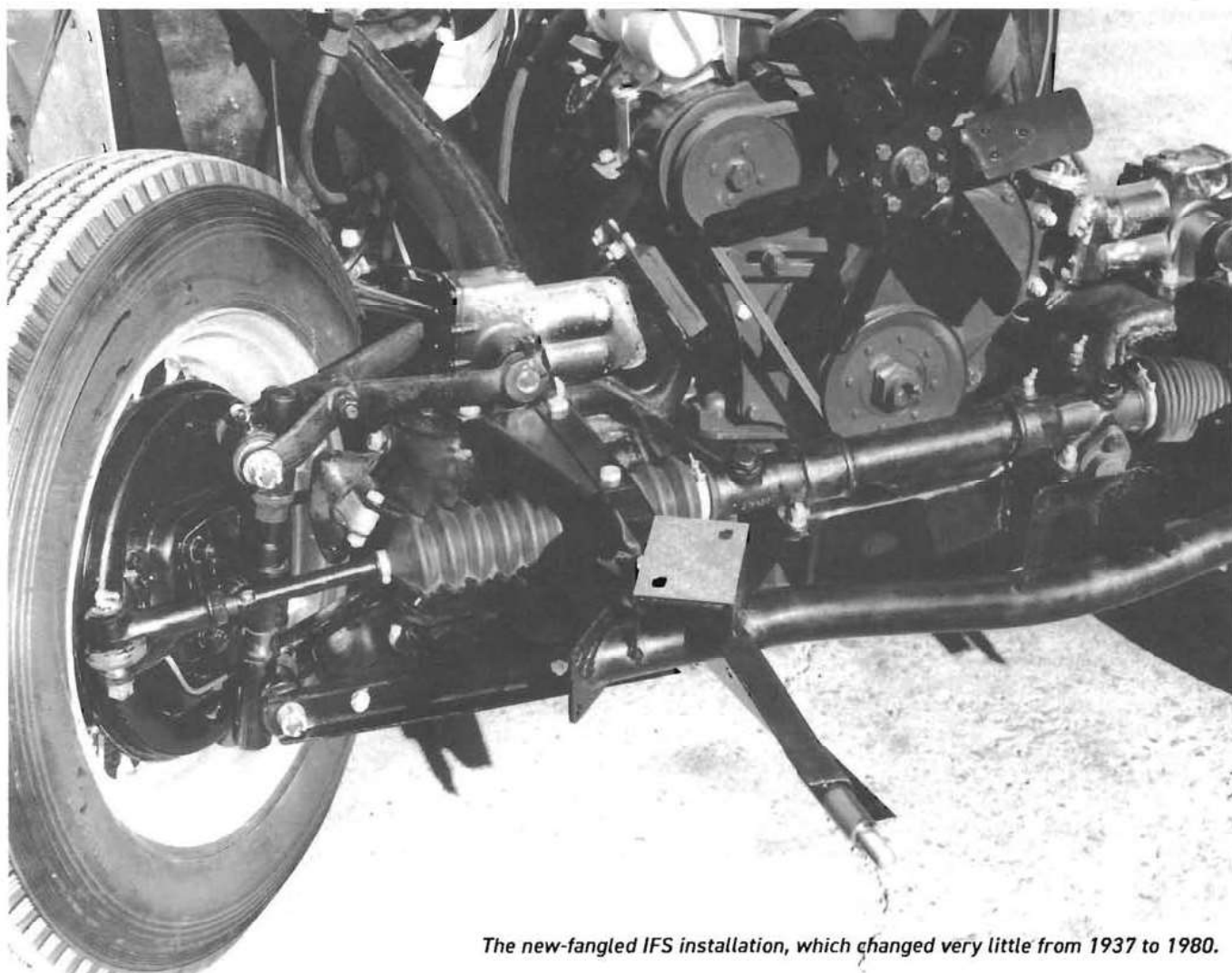
ends which performed just as well. If the truth be told, the 'Not Invented Here' professional attitude may have played its part, together with the fact that an independent front suspension package looked sure to cost more to manufacture than a simple beam-axle installation.

Stubborn, and convinced that this innovation would eventually have to be adopted, Issigonis and Daniels then insisted that it should be used in the very next new Morris model which was being proposed (this being the successor to the Series III 12, which was due to be launched at the end of 1939) but the onset of World War Two soon killed off that project completely. A plan to graft it into a new, small, MG-

badged saloon car (closely based on the Morris 8 Series E) was also sidelined by the outbreak of World War Two and that was that for the next six years!

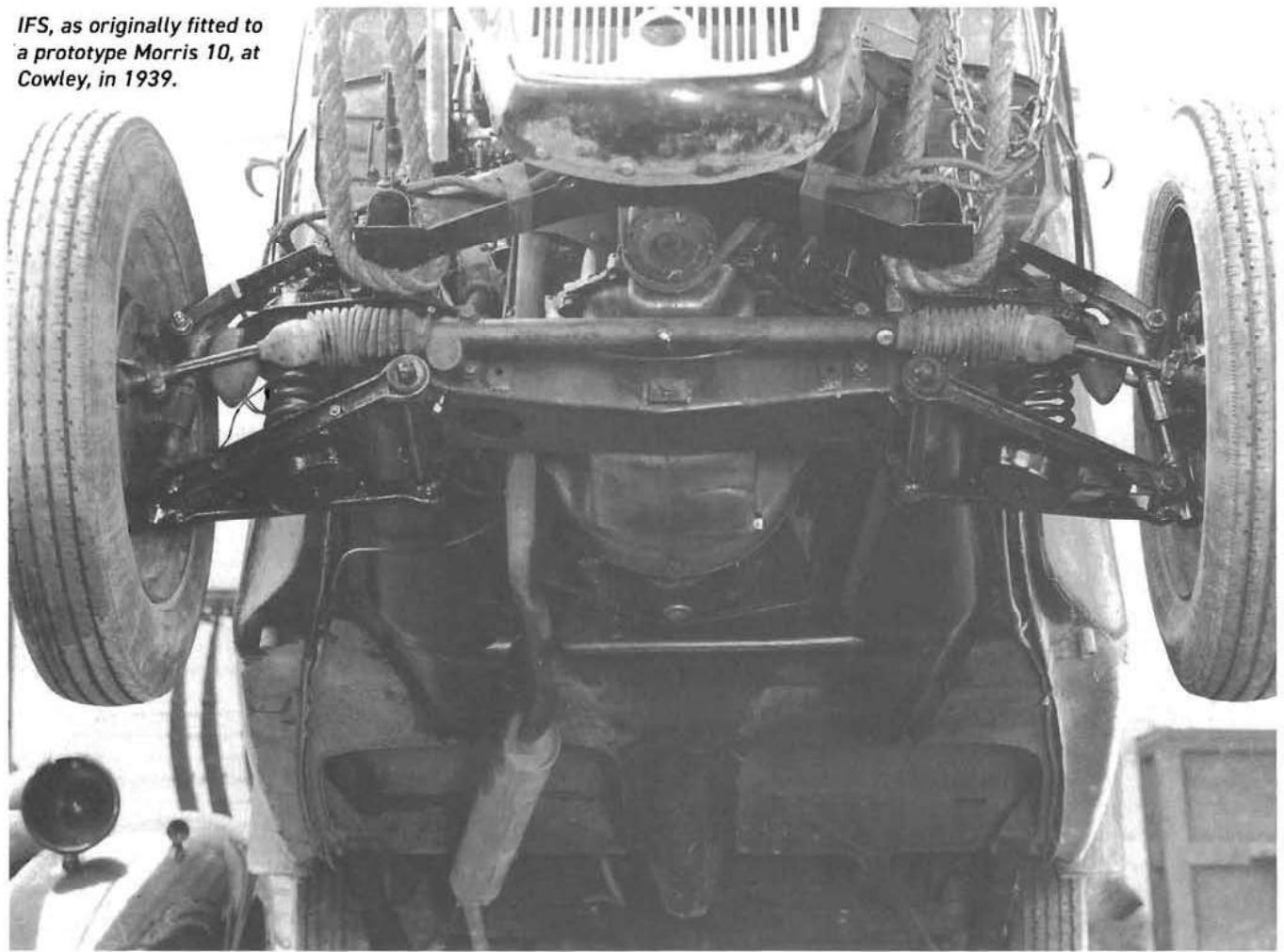
Somehow or other, though, a single, prototype 'MG 10' had already been built by the summer of 1939 and that car was used throughout the war years, usually as transport from Cowley to other Nuffield organisation plants. Because this car had the new-fangled independent front end installed, many managers experienced its virtues. It seemed to be well-liked and built up an excellent record.

Even so, after 1945, the recovery and return to peacetime motor car engineering took time. Nuffield's product plan of 1939 was summarily



The new-fangled IFS installation, which changed very little from 1937 to 1980.

IFS, as originally fitted to a prototype Morris 10, at Cowley, in 1939.



« abandoned and, pending the arrival of new Morris Minor and Oxford ranges, Nuffield could only set about the building of the 1939-vintage Morris 8 Series E and the 10 Series M-types. Neither of these had independent suspension and it did not look as if either would ever be updated. Amazingly, the company, led by the formidable Miles Thomas, then decided to give the MG business a boost, allowed the 'MG 10' of 1939 to be revived and a new car called the MG Y-Type was therefore born.

Post-war shortages, and the need to boost Nuffield's cash flow by producing established models as soon, and as rapidly, as possible, took precedence. It was not until May 1947 that Nuffield was ready to introduce the new MG model modestly titled '1½-litre saloon'.

Basically, this was developed from the 8 Series E, with a newly-engineered chassis frame, and featured a graceful 1930s-type MG nose. It was typical of the way that Nuffield was thinking in those days that series-production car assembly began to take shape at Abingdon, rather than at Cowley, where the 'parent' production car (the 8 Series E) was being assembled in large quantities.

The 1½-litre was not a fast machine, nor one which faced up to any direct competition, but the company did its best to emphasise the new car's heritage. It was almost inevitable, therefore, that it should get a good reception from the press. Because they could be relied upon to be po-faced and impressed by all such post-war British models, The *Autocar's* testers of the

day were delighted even though their test car (DBL 601) could only record a leisurely 0-60mph acceleration time of 28.2 seconds.

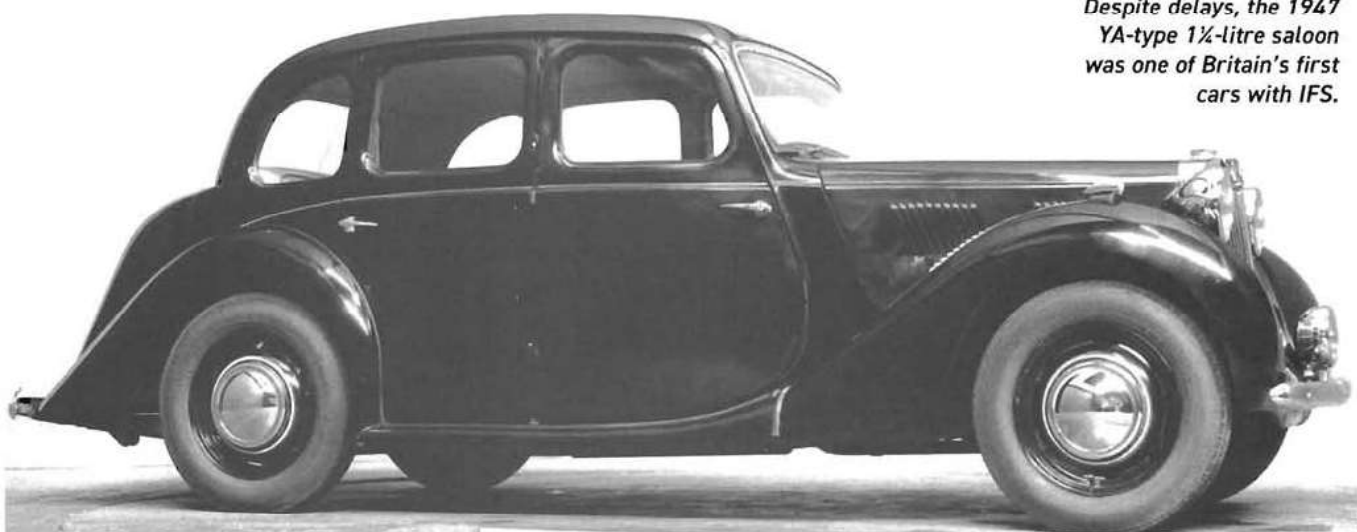
The test itself had this to say about the new car's handling: "The suspension includes coil springs in front and half-elliptics at the rear and a happy effect has been obtained. The car's stability has already been indicated. As regards riding comfort even quite appreciable deteriorations in road surface are not felt, and undoubtedly in general riding it gains enormously over its normally sprung predecessors in softness and comfort.

"As a whole, in fact, a quite remarkable compromise has been achieved between, on the one hand, the best points of the sports machine in accuracy of handling and road holding

“ SOON THERE WAS MORE BAD NEWS: THE ORIGINAL INSTALLATION WAS BRUTALLY REJECTED BY MANAGEMENT, DESPITE ITS ENGINEERING MERIT. ”

“ BECAUSE THIS CAR HAD THE NEW-FANGLED INDEPENDENT FRONT END INSTALLED, MANY MANAGERS EXPERIENCED ITS VIRTUES. IT SEEMED TO BE WELL-LIKED AND BUILT UP AN EXCELLENT RECORD. ”

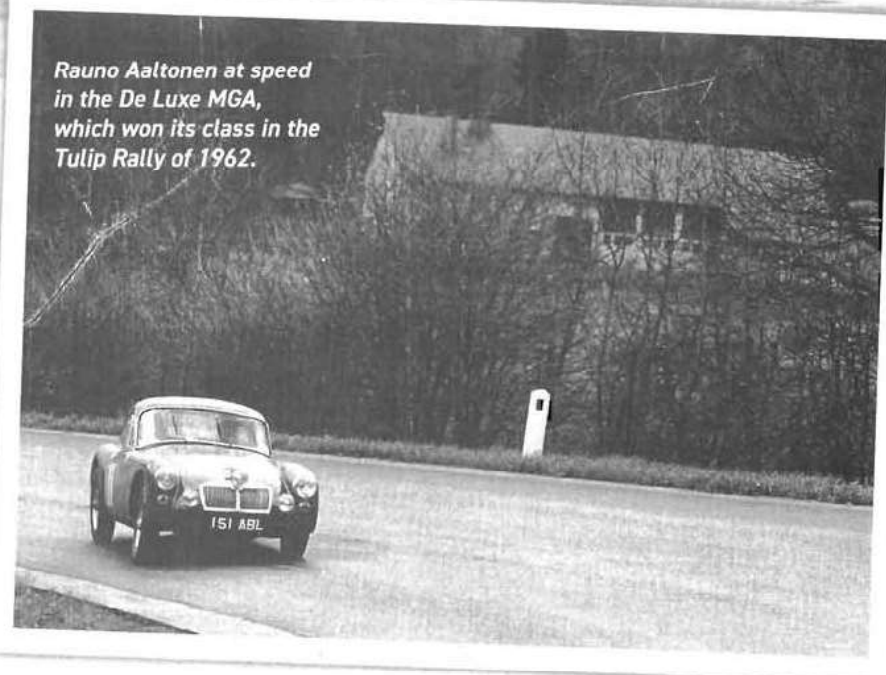
Despite delays, the 1947 YA-type 1½-litre saloon was one of Britain's first cars with IFS.



and, on the other, comfort, ease and lightness of control..."

Nuffield bosses, and in particular Miles Thomas (who had usually supported Issigonis's opinions in the face of criticism from Lord Nuffield), must have been relieved by the new feature's reception. The MG development team at Abingdon, led then by Syd Enever, was encouraged to adopt it for future use in several forthcoming MG models. In that future, the only detail which eventually clashed with modern trends was the retention of a lever arm damper installation. As the lever of this old-style piece of kit also doubled as a 'top wishbone' there were several cost-saving arguments to make it practical.

Unhappily Syd and his team, of course, had no influence on what should be included in the specification of 'corporate' MGs such as the Magnette ZA and the MkIII which followed in the 1950s and 1960s. They were delighted to retain the original Issigonis/Daniels creation for the MG TD, the TF, the MGA and the MGB, all of which followed. A different system had to be used in the MGC however, owing to the bulk and



Rauno Aaltonen at speed in the De Luxe MGA, which won its class in the Tulip Rally of 1962.

size of the BMC 6-cylinder engine.

MG enthusiasts were so used to seeing this system on all MGB-derived cars that they must have been astonished to see it finally dumped from the R-V8, which appeared in October 1992. Maybe it was high time for, as *Autocar's* Steve Cropley wrote at the time: "The biggest suspension news is that the MGB's infernal lever arm

dampers have been dropped in favour of a tubular unit. The front suspension now has a proper double-wishbone system..."

Maybe that was not the affectionate send-off that all MG fanatics would have expected but it nevertheless reminded us all that this had been a most memorable, reliable, and long-lived, piece of kit. ☺