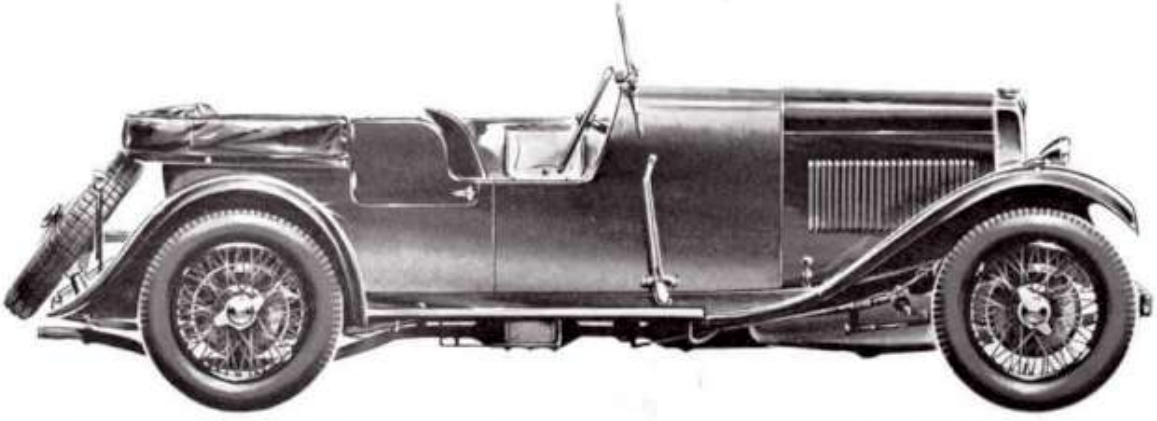
The 18/80 M.G.



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THE M.G. SIX 18/80 MARK I lightest of the 18/80 bodies was the Speed Model, of fabric-covered plywood on an ash frame. This is the Mark I version; only six Mark II chassis were fitted with Speed Model bodies.

The 18/80 M.G.

by F. Wilson McComb

Early in 1929, a batch of Mark I chassis leaves the M.G. factory at Cowley for Carbodies Ltd. of Coventry, where the coachwork was fitted. Drivers were a hardy breed in those days.

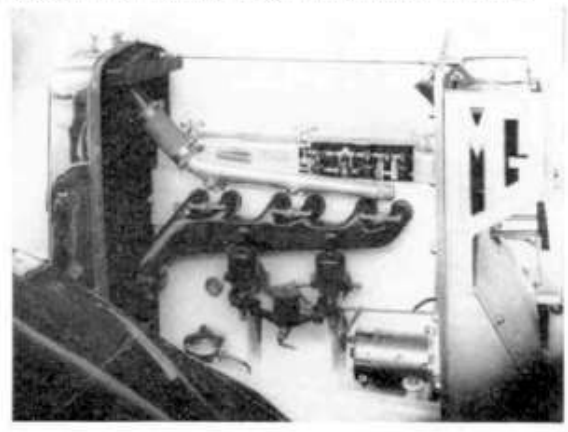
Towards the end of 1927, Cecil Kimber was making a determined effort to establish the separate identity of the M.G.—as he had dubbed his Morris-based, four-cylinder side-valve cars as early as March 1924. In September, M.G. production was moved to a brand-new factory at Cowley. In November, M.G. started to issue their own guarantee plates for the 14/40 M.G., which now became known as the 14/40 Mark IV and broke out in a perfect rash of octagons. The octagon symbol, too, had been employed to an increasing extent since 1924, but Kimber knew that he needed more than a mere symbol if he was to market the sort of sports car his ambition craved. Above all, he needed a high-performance engine instead of a rather woolly side-valve design.

Many people have speculated about the origins of the M.G. 18/80 engine, and it is often described as a basically Wolseley design first used in the Morris Six (W. R. Morris having bought the Wolseley Company early in 1927). But there is evidence which suggests a somewhat different story. In his autobiography, *Out on a Wing*, Sir Miles Thomas writes: 'By nature Morris was an adapter rather than a creator, and it was terribly hard to persuade him to let the drawing office start from the clean sheet of paper stage. Thus what managers could not do openly had to be done furtively. Frank Woollard of Morris Engines had a very advanced six-cylinder overhead camshaft engine designed—mainly with a view to helping Cecil Kimber of M.G. to get into the sophisticated high performance market.' Sir Miles goes on to say that Morris disapproved, but the engine was used successively in the Morris Major, the Morris Six and the Morris Isis.

What he does not mention is that both Kimber *and* Woollard came to Morris from E. G. Wrigley Ltd. of Birmingham, where they had worked together. This makes his story even more credible. It would have been very much in character for the ever-persuasive Kimber to ask his old colleague to design a power unit that, if too good for the bread-and-butter Morris models of the day, would be tailor-made for the M.G. of Kimber's dreams.

The reference to the Morris Major is puzzling; as Michael Sedgwick points out, this was a side-valve car, and in any case it did not appear until the 1930 Motor Show. What *did* precede the Morris Six was

With its chain-driven overhead camshaft, the 2¼-litre six-cylinder engine of the M.G. 18/80 was hailed as an advanced design. The original Morris unit had a single carburetter on the offside.



The sectioned Mark I chassis prepared for the 1928 Motor Show revealed many significant differences from the Morris-based prototype.

the Morris Light Six, a rather obscure model which may never have gone into production, but which was described in the *Autocar* of 14th October 1927 and catalogued at the 1927 Motor Show. It was certainly in this car that the 2,468 c.c. six-cylinder engine, with chain-driven overhead camshaft, was used for the first time, and the power unit was hailed then as an exceptionally interesting and most up-to-date design.

Almost a year later, on 17th August 1928, *Autocar* published the first details of the new six-cylinder M.G. The engine was clearly that of the Morris Light Six; the prototype illustrated even had the single S.U. carburettor on the offside, though it was stated that subsequent M.G. engines would have twin S.U.s on the nearside. The prototype chassis was rather a mixture; five-stud bolt-on wheels were fitted, the rear axle and brakes seemed identical to those of the Light Six or the M.G. 14/40, the toe-board and bulkhead appeared to be 14/40, but the chassis frame was a new one of M.G. design. The wheelbase and track, 9 ft. 6 in. by 4 ft. 0 in., were identical to those of the Light Six. By this time, however, it seems that the Morris Light Six had already given way to the Morris Six, which used the same engine but was a much larger and heavier car.

THE BREAKAWAY BEGINS

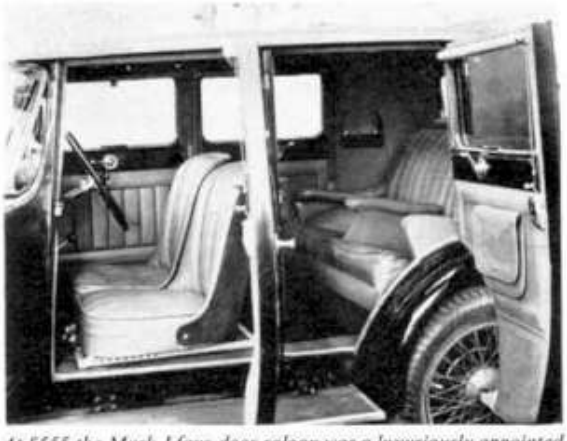
At least five M.G. prototypes were built with bolt-on wheels: an open two-seater, two four-seater tourers, a four-door saloon, and a two-door 'Sportsman's Salonette' which subsequently appeared on Stand 150 at Olympia when the 1928 Motor Show opened in October. If the Morris parentage of the prototype M.G. Six was still embarrassingly obvious, it was at least the first production M.G. with a Kimber-designed frame, and the sectioned chassis displayed at the Motor Show revealed several other significant innovations. The engine had been extensively modified to take the twin carburettors; proper Rudge-Whitworth centre-lock wheels were fitted; there was a very sturdy bulkhead structure carrying reserve fuel and oil tanks; the pedals were fully adjustable; the handbrake was of fly-off type, and the handsome new M.G. radiator attracted much attention. The many good features added up to a considerable degree of refinement which made the new M.G. seem fair value at £420 for the chassis, £480 for the two-seater, £485 for the tourer, £545 for the salonette and £555 for the four-door saloon—even if these prices were a good deal higher than those quoted provisionally by *Autocar* (£425 for the tourer, £525 for the saloon) only two months before.

The new car was referred to in M.G. literature as the 'M.G. Sports Six' or simply the 'M.G. Six', but by the early part of 1929 it was called the '18/80 M.G. Six Sports'. There was no more justification for this designation than for the '14/40' of the old Mark IV models or the '8/33' of the new Midget (which also appeared at the 1928 Show). Admittedly the Treasury rating was 17·7 h.p., but a power curve for one engine tested during 1929 shows that the unit gave a maximum of 58 b.h.p. at 3,200 r.p.m. (which was 6 b.h.p. more than the single-carburettor version), and it is doubtful if any of them gave very much more than 60 b.h.p. Nevertheless, a road test of the four-door saloon in *The Motor* of 12th March 1929 was most enthusiastic. Suspension, steering and brakes were rated excellent, and particular mention was made of the engine's flexibility. It was found that the M.G. would accelerate smoothly from 5 to 78 m.p.h. in top gear with no rough period anywhere in the r.p.m. range (indeed, one of Kimber's favourite tricks was to balance a pencil on end on the radiator cap while 'running-up' the engine). For this reason, the three-speed gearbox was considered quite acceptable, and the 18/80 was adjudged a car of 'irresistible charm'. Instrumentation was really good, and the interior of the saloon could only be described as luxurious, with its leather upholstery, bucket front seats, blinds to *all* windows, door pockets, rope pulls, armrests, roof light and ventilator, and fitted flasks and ashtrays.

More than a year later, *Motor Sport* tested the very same

This prototype of the two-door Sportsman's Salonette, with five-stud wheels, was displayed on the M.G. stand at the 1928 Show and subsequently driven in the 1929 Monte Carlo Rally by Sir Francis Samuelson.

The standard Mark I four-seater tourer. Initially it cost £485, but by the end of 1930 the price had crept up to £525.



At £555 the Mark I four-door saloon was a luxuriously appointed motor-car. There were blinds on all windows but, paradoxically, a deep partition between the two rear seats.

car and reported on it in their issue of August 1930. They were equally enthusiastic, remarked on the 'combination of comfort and liveliness which is the outstanding characteristic', and finally said, 'At the conclusion of our all-too-brief test, we found ourselves in the pleasant and somewhat unusual position of being unable to find anything which we could criticise.' Praise indeed. Just at the time that issue of *Motor Sport* appeared on the bookstalls, Miss Amy Johnson was graciously accepting an 18/80 salonette presented to her by Sir William Morris. Inevitably, there was an aeroplane mascot fitted to the radiator cap.

On the whole, the enthusiasm of the motoring press was justified. The 18/80 *was* an attractive car, possessed of more refinement than most in its price bracket. It had an unusually high maximum speed for the period, and there was something indefinably appealing in its good road manners and general smoothness. Even in saloon form it would out-accelerate a Rover Sports Coupé, an Alvis Silver Eagle or a 3-litre Lagonda Six—mainly because it was far from heavy by the standards of the time; the four-door saloon weighed 25¾ cwt., the tourer an even 24 cwt. Nevertheless, it was certainly not beyond criticism. The three-speed gearbox was something of a handicap, the track—and therefore the bodywork—was on the narrow side, and the old Mark IV brakes, with their twin cross-shafts and Perrot operating shafts, occupied a lot of chassis space, not to mention the complication of having *four* shoes in each rear brake: two for the footbrake, two for the handbrake. Moreover, those who drove the 18/80 in lively fashion discovered that the Morris-based back axle didn't always appreciate a power output much higher than it was originally designed for; the prudent carried a spare half-shaft or two, and some found they needed a crown-wheel and pinion as well.

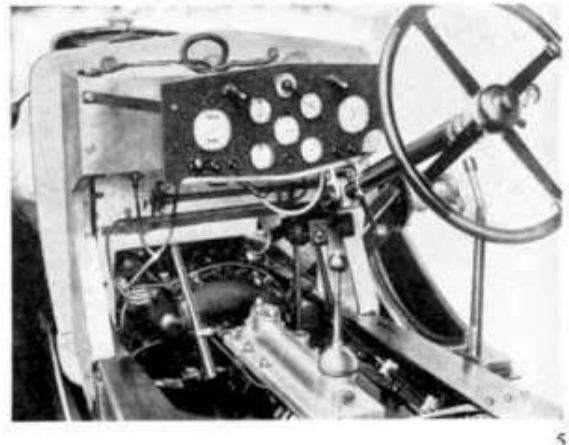
A NEW 18/80

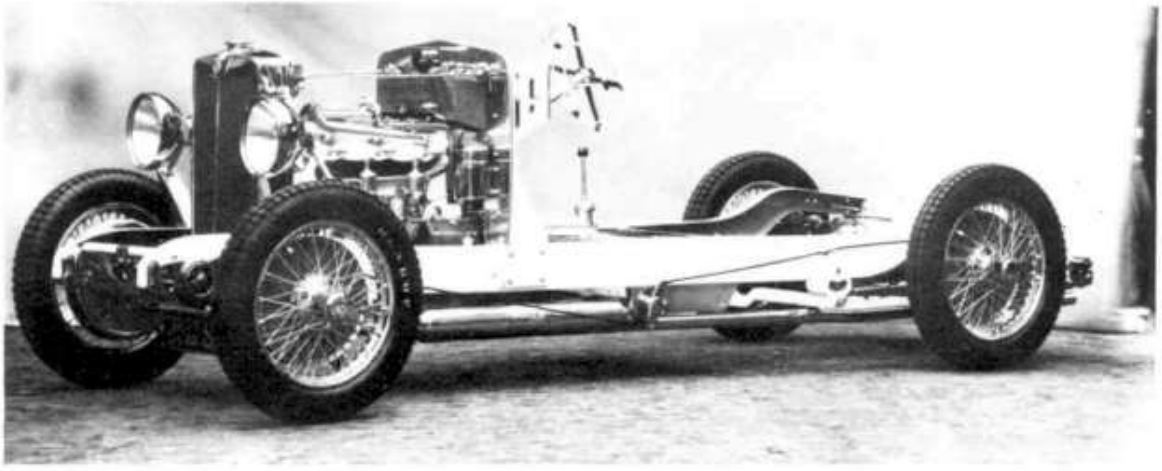
So Kimber decided to bring out an additional version of the 18/80 to be marketed alongside the original one and the 'M' type M.G. Midget, both of which were selling well. The old side-valve Mark IV was dropped in mid-1929 and, shortly before the M.G. Car Company made its final move to Abingdon in September, work started on what was to become known as the '18/80 M.G. Six Sports Mark II'. Thus the original 18/80 became the Mark I, to the everlasting confusion of historians who couldn't understand why the Mark I was preceded by the Mark IV.

This time it was *The Motor* which scooped *Autocar*—and by exactly a month, too. On 10th September 1929 they described the new 18/80 Mark II, though they were so quick off the mark that they got some minor details wrong: the chassis shown has Mark I shock absorbers and the single M.G.-embossed float chamber of the Mark I. When a sectioned chassis appeared on the stand at the 1929 Motor Show, it was clear that Kimber had at last produced an M.G.

Another view of the four-door Mark I saloon. This particular car was road-tested by Motor *in March 1929 and by* Motor Sport *in August 1930, and achieved a top speed of 78 m.p.h.*

Close-up of a production Mark II chassis, showing the instrumentation and the gearbox remote control. The horn-ring of the Show chassis was not adopted for production.





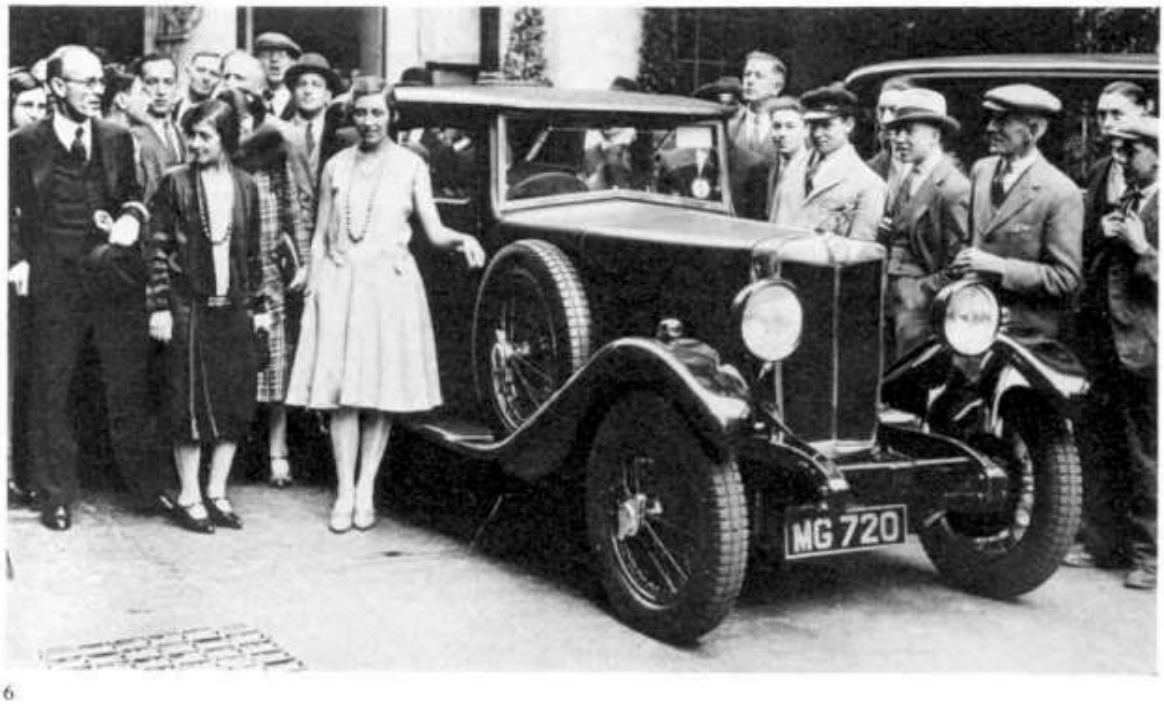
The 18/80 Mark II chassis prepared for the 1929 Motor Show. Changes included a new frame, wider track, better brakes and a four-speed gearbox.

that owed nothing to Morris, apart from the basic engine design. He celebrated the occasion by allocating an 'A' prefix to the chassis serial numbers.

The chassis frame itself could only be described as massive, with very deep side-members. There were tie-rods between the dumb-irons front and rear, a hefty cross-member which supported the radiator and the front end of the engine, another cross-member above the fuel tank mountings at the rear, and in the middle an enormous box-section member forming a cradle for the two batteries, with a large-diameter tube through which the transmission line passed. The axles were completely new, altogether stouter than those of the Mark I, and gave a track of 4 ft. 4 in. instead of 4 ft. 0 in. The front suspension was virtually unchanged, but at the rear the springs were appreciably wider, carried *outside* the chassis, shackled at both ends, and pivoted on Silentbloc rubber bushes. The brake drums were 14 in. in diameter (2 in. more than the Mark I) and brake operation was by Bowden cable from a large-diameter cross-shaft, through which the handbrake also performed—thus giving the four-wheel handbrake adopted at the same time for the Midget, which was to be an M.G. feature for many years (and which now gives rise to utter bewilderment among M.o.T. testers who find the handbrake *more* efficient than the footbrake).

It was obvious that considerable thought had been devoted to the brakes; even the individual camshafts were cadmium-plated, and carried in Hyatt spiral-roller bearings in the cast aluminium backplates, with spring steel liners. Chassis lubrication, too, had been

Amy Johnson takes delivery of the Mark I salonette presented to her in 1930, shortly after she had made her solo flight from England to Australia.



given careful attention. A Tecalemit unit actuated by road vibration pumped oil to every chassis-lubrication point: springs, shackles, kingpins, steering joints—the lot. The bulkhead still carried reserve oil and fuel tanks, but the fuel feed was different, the petrol tank incorporating an Autovac which drew its supply from the main tank, then passed it by gravity to the carburettors, each of which now had its own float chamber.

The engine was almost unchanged, apart from a new crankcase breather which was presumably intended to stop one of the less endearing tricks of the 18/80—though in fact it failed to do so. Many 18/80 owners found after a time that they had oil-soaked rear brakes, and they would look mighty puzzled when knowledgeable garage mechanics suggested that the time had obviously come to check their piston rings and bore wear. When the pistons became sloppy the blow-by would build up considerable crankcase pressure which blew the sump oil through the wet clutch into the gearbox, thence down the torque tube into the back axle, and thus into the back brakes. As a regular maintenance task, some 18/80 owners would regularly drain off oil from the back axle and shove it back in the sump, where it belonged.

The most important feature of the new car was perhaps the four-speed gearbox, a really good design with well-supported shafts, a neat remote control, and a Yale lock to hold the box in neutral as a thief-proofing device. Instrumentation was identical to that of the Mark I, apart from an additional switch for the reversing light. With the old-type brake shafts out of the way, the four-seater Mark II bodies incorporated deep foot wells which provided more leg-room for passengers in the back.

A wide range of coachwork was planned for the two six-cylinder chassis, making a total of twelve models plus two more (two-seater and Sportsman's Coupé) on the Midget chassis. Mark I prices had crept up by twenty pounds or so, and most of the Mark II models were at least £100 dearer than the corresponding Mark I. They were: chassis, Mark I £445, Mark II £550; two-seater, Mark I £510, Mark II £625; tourer, Mark I £515, Mark II £630; fabric-bodied salonette, Mark I £550, Mark II £655; coachbuilt (semi-panelled) salonette, Mark I £555, Mark II £660; fabric-bodied saloon, Mark I £560, Mark II £660; coachbuilt saloon, Mark I £570, Mark II £670.

CABLE BRAKES FOR THE MARK I

There is no indication at this time of any significant modification to the Mark I chassis, yet within a few months of the 1929 Motor Show an important change was made. It was found that the brake operating gear of the Mark II could be fairly easily adapted to the Mark I, although the 12-in. diameter drums were retained. This increased the effective brake lining area a little, and the less complicated layout probably gave less trouble in service.

The advent of the Mark II by no means ended the life of the Mark I. There was first the considerable difference in price between the two models, which was not likely to be overlooked at a time when the economic situation was far from good. Secondly, the manner in which the Mark II was jewelled in every hole, equipped with every desirable feature that the civilised motorist might expect, had brought a tremendous weight increase; the chassis alone

(Right to left) *Sir Francis (then Capt. F. H. B.) Samuelson, Sir William Morris, Cecil Kimber and Samuelson's co-driver, E. H. McCormick, with the Mark II saloon which they drove in the 1930 Monte Carlo Rally. This photograph was taken on 20 January, when a luncheon party was held to mark the M.G. Car Company's establishment in their new factory at Abingdon.*

Announced in September 1930, the light and lively Mark I Speed Model sold for £525 and was particularly popular with sporting motorists. The complete car was only 84 lbs. heavier than a bare Mark II chassis in running condition.

scaled some 3 cwt. more than that of the Mark I. The more sporting driver therefore tended to be a little disappointed in the new car if he was accustomed to the lively performance of the earlier 18/80, and the most popular version of the Mark II proved to be the saloon, which suggests that it appealed to a slightly different market. A Mark II two-seater tested by *The Motor* for their issue of 3rd June 1930 showed no improvement in performance over the four-door Mark I saloon they had tried in March 1929, and another Mark II two-seater tried in July 1931 was actually somewhat down on performance.

Incidentally, the 1930 two-seater model tested by *The Motor* was sold, after a good many thousands of miles as a demonstrator, to a Mr. de Villiers. In 1932 he shipped the car to New York, covered 6,000 miles in crossing America to the West Coast, shipped to India and then to Mombasa, and drove through Africa to Cape Town. From an account of the journey which was published the following year, it seems that the only trouble he had with the old two-seater was a radiator leak induced by rough roads in Africa.

The fabric-bodied saloons appear to have been dropped about the summer of 1930, but several new models were announced that year. There was the fascinating Mark III, B-type, Tigress or Road Racing Model based on the Mark II chassis, but as this is strictly an 18/100, not an 18/80, it must form the subject of a separate Profile. There was a new Mark II

De Luxe Saloon at the stiff price of £699, and, soon after that, a new folding-head Mark II Coupé De Luxe at £695. But perhaps the most important innovation at this time was the introduction of the Mark I Speed Model.

AN 80 M.P.H. GUARANTEE

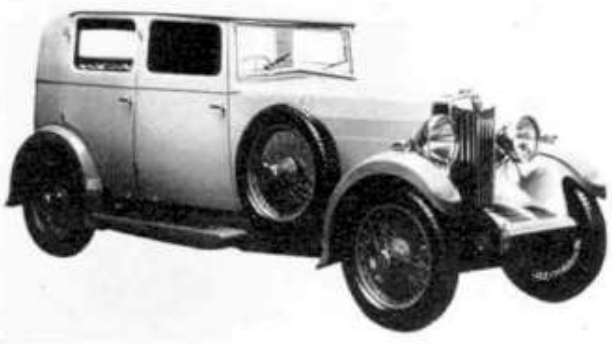
Announced by *The Motor* in their issue of 9th September 1930, the Speed Model featured a very smart four-seater touring body of extremely light construction, with only two doors and a deep cutaway on the driver's side—which probably made it easier to reach the outside handbrake. The tail was aluminium, the remainder of fabric-covered plywood on an ash frame, and the complete car weighed a mere 22¾ cwt.—not a great deal more than a bare Mark II chassis in running order. With this light body and the addition of a Clayton Dewandre vacuum servo, the braking was altogether better than on earlier Mark I models, and at £525 the new model was sure of a ready market. A road test showed a 0 to 60 m.p.h. time of 22·8 sec. against 35 sec. or so for the other six-cylinder models, and most testers managed an 80 m.p.h. maximum. However, the 1930 Motor Show catalogue cannily announced that an 80 m.p.h. certificate would be supplied to the purchaser on payment of 'a nominal charge of £12 12s. to cover the cost of track and certificate fees, etc.' One is tempted to suggest that the 'nominal charge' might also cover a mechanic's time making *quite* sure of that 80 m.p.h., but in fact any decent 18/80 would achieve that figure if properly turned out.

At the 1930 Show, then, the full six-cylinder range was two-seater, four-seater, salonette and saloon in either Mark I or Mark II form, plus Mark I Speed Model, and Mark II De Luxe as either saloon or folding-head coupé. Servo brake assistance, chromium plating and Triplex glass were now standardised on all the Mark I models, the prices of which were increased by £10. The Mark II prices remained unchanged. The price of the Mark III was not announced, but it eventually turned out to be a cool £895.

During 1931 there appears to have been a certain amount of chopping and changing in the bodywork which occasionally causes confusion nowadays. For instance, a wider Speed Model body was built (possibly for the Mark II chassis, though in fact only six Mark II Speed Models were made) and some were fitted to the Mark I chassis, which gives rise to a Mark I Speed Model with the handbrake *inside* the body. Another Mark II coupé appeared with concealed hood-irons, and other modifications. Again, some of the score of metal bodies left over from the short-lived Mark III were fitted to Mark I chassis, bringing another hybrid into being.

THE BEGINNING OF THE END

In the May 1931 issue of *Motor Sport* a very favourable road test of the Mark I Speed Model appeared, yet it was prefaced by these words: 'The remarkable recent achievements of the famous M.G. Midgets in trials and races, as well as the enormous numbers of these models on the road, seem to have obscured to some extent the M.G. Six, which is quite as remarkable a car in its own class as its smaller brother.' This is practically an apology—and it was all too true.



Two special bodies on the Mark II chassis. The two-seater features a large luggage boot and disappearing hood. The saloon was specially built for Gordon Crosby, the well-known motoring artist. Both cars are fitted with the cycle-type mudguards and aerofoil' running board which had suddenly become fashionable.

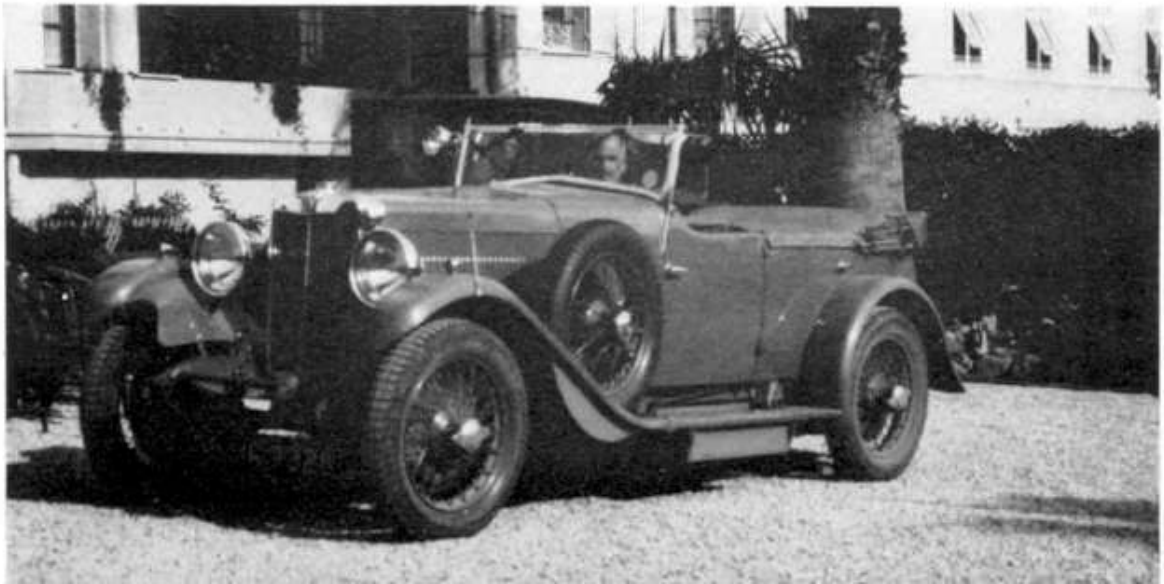
The 18/80 models had already begun to be pushed into the background by the smaller M.G.s, which were winning races, breaking records, attracting all the publicity—and costing a fraction of the price. The last of the five Mark III models was built in January 1931. In July of the same year, production of the well-loved but already almost forgotten Mark I also ceased, after a total of 500 cars had been built. In September *The Motor* announced that the 18/80 Mark II M.G. Six would 'continue without alterations'. The prices also remained unchanged: £625 for the two-seater, £630 for the tourer, £660 for the salonette, £670 for the saloon and £699 for the saloon de luxe. The de luxe coupé was not mentioned, but the Mark II Speed Model was listed at £630. This information was given in the last six lines of a two-page article devoted almost entirely to the latest M.G. six-cylinder car—the little 1,271 c.c. 'F' type Magna, selling at £250.

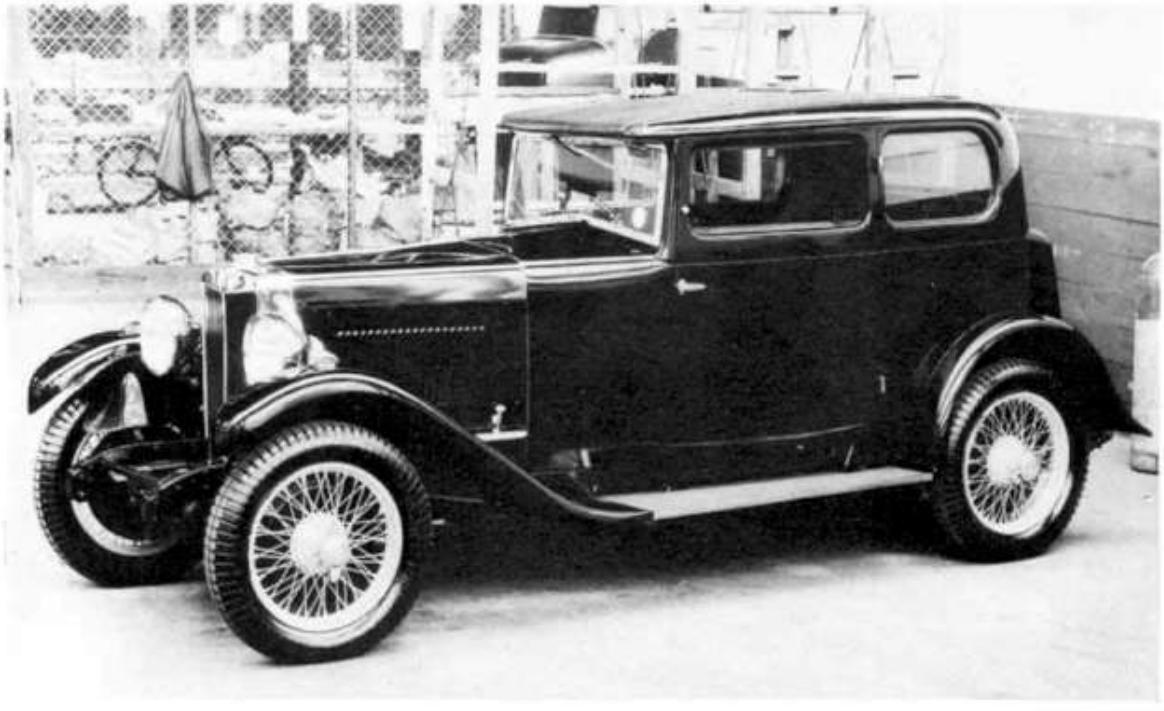
And indeed, production did continue, though only just. When the new Midget 'J' range was announced in August 1932, the motoring press did not bother to mention the 18/80 at all. At the 1932 Motor Show only one 18/80 was shown—the Mark II de luxe saloon, still offered at £699 and still selling to the occasional member of the aristocracy. Only nine more cars were built after the Show, but it was July of the following year when the last 18/80 of all left the Abingdon factory. Quite suddenly this beautifully-built car had become an anachronism, a white elephant which some unfortunate dealers still had in their showrooms, unsold and almost unsaleable, in the summer of 1934.

A Mark I Speed Model reaches the finish of the 1931 Monte Carlo Rally. This was the third appearance of an 18/80 in the event, Samuelson having driven a Mark I saloon in the 1929 rally and a Mark II saloon in 1930.

The 500 Mark I models were built over a period of 35 months. In the case of the Mark II less than half that production—236 altogether—dragged out over 46 months. The 18/80 M.G. was an essentially vintage car which was still in production when the recognised 'vintage period' had ended. It might be said—even if it is a cliché—that its passing marked the end of an era.

Enjoying the sunshine in a Mark II four-seater tourer. The price of this model was £630; the additional spare wheel and mounting would have cost the owner another £14.





The metal-panelled saloons and salonettes remained in production longer than the fabric versions. This is the metal-panelled Mark II salonette, which was listed at £660.

Specification: 18/80 Mark I

Engine: 2,468 c.c. six-cylinder, water-cooled. Chain-driven overhead camshaft with eccentric chain tensioner. Four-bearing crankshaft. Shell bearings. Oil pump and distributor driven by skew gears. Chain-driven dynamo with water impeller in unit. Two 1¼ in. horizontal S.U. carburettors with single float chamber.

Transmission: Double-plate clutch with cork inserts, running in oil. Three-speed gearbox in unit with engine. Torque tube to spiral bevel final drive, with ball joint behind gearbox. Final drive usually 4·25:1.

Chassis: Steel channel with riveted cross-members.

Suspension: Semi-elliptic leaf springs front and rear. Front springs shackled at forward end only. Chassis-mounted (single-arm) Hartford friction shock absorbers.

Brakes: Mechanical with 12 in. drums. Up to early 1930, separate cross-shafts for footbrake and handbrake, four shoes to each rear brake. Perrot-type actuating shafts. Later, single cross-shaft actuating cased cables (or cable-and-rod on Speed Model), two shoes to each rear brake. Vacuum servo assistance on Speed Models and all cars after late 1930. Fly-off handbrake.

Wheels: 19 in. centre-lock Rudge type, except for prototypes, which were five-stud bolt-on wire.

Fuel system: 10-gallon tank at rear, with Autopulse electric pump feeding 2-gallon tank in bulkhead, thence by gravity.

Instruments: Jaeger speedometer and tachometer, clock, ammeter, fuel gauge, oil-pressure gauge and radiator thermometer.

Wheelbase: 9 ft. 6 in.

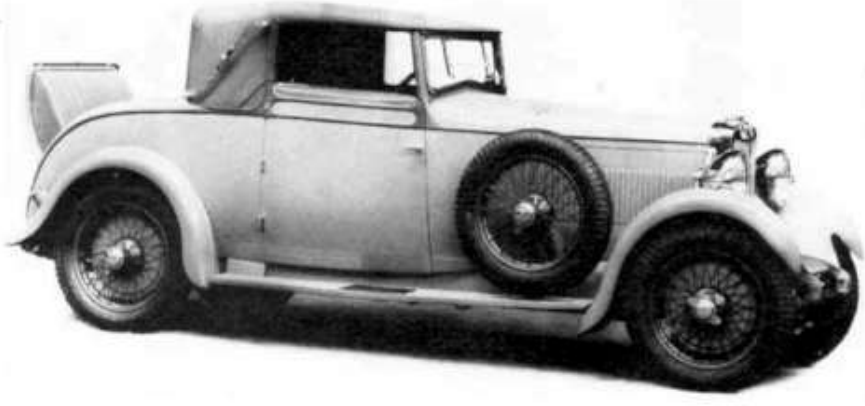
Track: 4 ft. 0 in.

Bore and stroke: 69 × 110 mm.

Compression ratio: 5·8:1

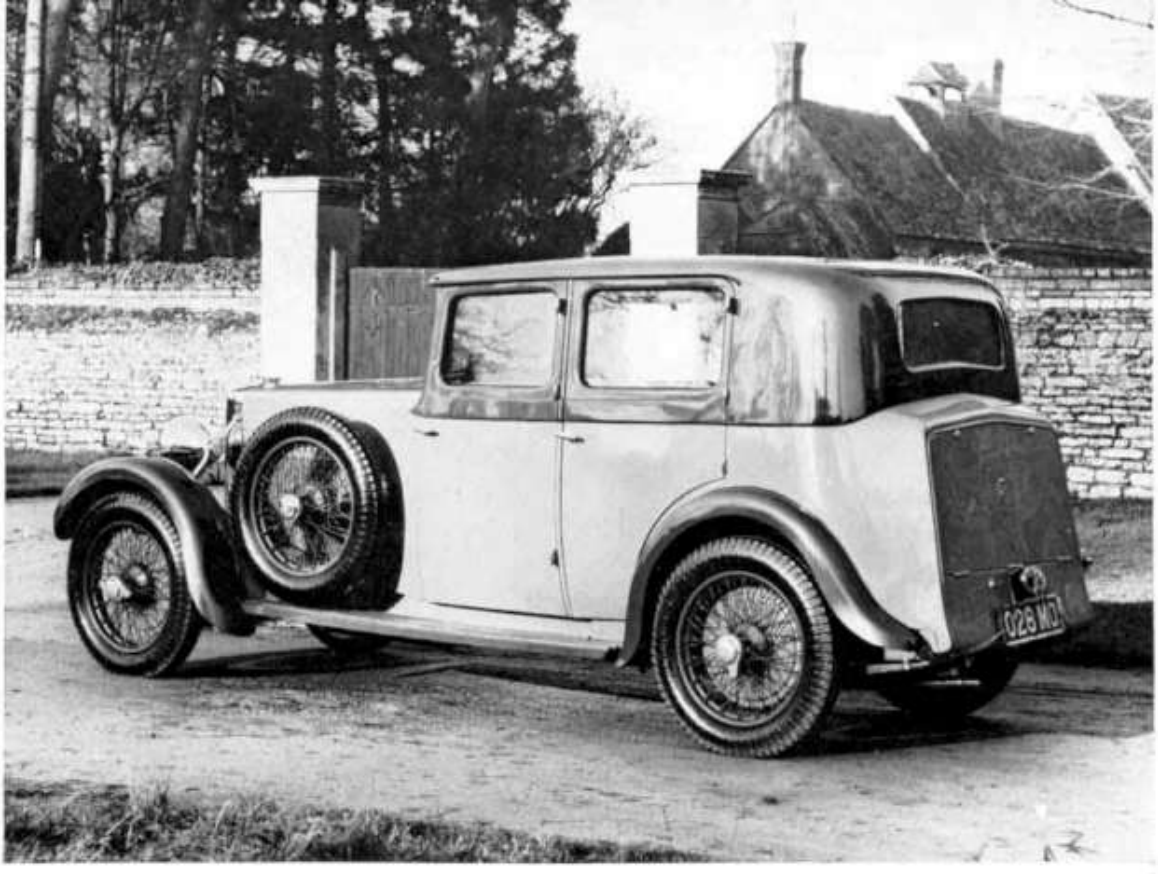
Weight: 23 cwt. (two-seater); 24 cwt. (tourer); 25¾ cwt. (four-door saloon); 22¾ cwt. (Speed Model).

Production period: August 1928 (prototypes) to July 1931.



Available only on the Mark II chassis, the folding-head Coupé De Luxe appeared during 1930 and cost £695.

THE M.G. SIX 18.80 MARK II: the all-aluminium two-seater body was available on both the Mark I and the Mark II chassis. This Mark II example, the property of the author, is fitted with the optional 'de luxe' radiator and stone-guard.



Most expensive of the 18/80 models was the Mark II De Luxe Saloon at £699. This example was photographed outside Norman Hall, Sutton Courtenay, the house where Sir Miles Thomas used to live, a few miles from Abingdon.

18/80 Mark II

Engine: As Mark I, but with modified oil filler, additional crankcase breather, and two float chambers for carburettors.

Transmission: Similar in layout to Mark I, but four-speed gearbox with romote control and rear axle of heavier construction. Final drive usually 4·27:1

Chassis: Similar to Mark I but heavier construction throughout.

Suspension: Front end similar to Mark I; rear springs wider, mounted outside chassis, and incorporating Silentbloc rubber bushes. Double Hartford friction shock absorbers, front and rear.

Brakes: Mechanical with 14 in. drums. Single cross-shaft actuating cased cables. Heavy cast aluminium backplates with Hyatt bearings for brake camshafts. Fly-off handbrake.

Wheels: 19 in. centre-lock Rudge type.

Fuel system: 2-gallon tank in bulkhead incorporates Autovac drawing fuel from 12-gallon rear tank, and feeds by gravity to float chambers.

Instruments: As Mark I. Additional switch on dash panel for reversing light.

Wheelbase: 9 ft. 6 in.

Track 4 ft. 4 in.

Bore and stroke: 69 × 110 mm.

Compression ratio: 5·8:1.

Weight: 26¼ cwt. (two-seater); 27 cwt. (tourer); 29 cwt. (four-door saloon).

Production period: After prototypes and Show models, April 1930 to July 1933.

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