It’s New!
It’s Exciting!
It’s Revolutionary!
The —

MORRIS

MINI-MINOR
The car of the future—now!

With the announcement (on 26 August) of the entirely new and revolutionary Morris Mini-Minor, incorporating a transversely mounted 850-c.c. o.h.v. engine, front-wheel drive, and independent suspension all round, the British Motor Corporation offers the most convincing vindication so far of its policy of component production rationalization and parts standardization.

Its announcement fulfilled a prediction made less than two years ago at a Motor Show luncheon in London, when Mr. George Harriman, Managing Director of the British Motor Corporation, stated that the Corporation's statisticians and market research experts had formed the view that the public did not want bubble cars but a low-priced, fully engineered car of excellent performance. 'Obviously,' he went on to say, 'if the Corporation can produce such a car which will sell more cheaply, they will do so.'

Here, then, is that car. It positively sprouts with new ideas like berries on a holly bush.

Designed and developed by the Corporation's own engineers, the Morris Mini-Minor is the most revolutionary—and evolutionary—motor-car ever to be produced in this country.

It is a full four-seater saloon with front-wheel drive and independent suspension all round, capable of 70 m.p.h., and with the petrol consumption of over 50 m.p.g. at 50 m.p.h. provides motoring at only a penny a mile. Although four persons can be carried in comfort it is but 10 ft. in length, 4 ft. 7 in. wide, and only 4 ft. 5 in. high. Its weight is only 11½ cwt., which, coupled with the 850-c.c. overhead-valve engine, gives an excellent power/weight ratio, ensuring outstanding road-holding and handling characteristics.

The body is of all-steel welded construction. In arriving at this design the team, led by Alec Issigonis, took four average-sized individuals and literally built the body around them! There are two wide-opening doors and the individual front seats tip forward for ease of access to the rear. Visibility is excellent, there being a large, bowed, single-piece windshield and a very large rear window. The door windows are of the sliding pattern specially designed to give a larger-than-normal opening aperture enabling the driver to lean out for reversing or manoeuvring in confined spaces. On the de-luxe model the large 'passenger' windows are louvered to increase ventilation. The external door handles are of the 'turn' pattern, and opening from inside is controlled by a simple cable pull.

As a result of this special 'tailoring', there is ample head and leg room for both front and rear passengers, and, as all ride well within the wheelbase, there is better weight distribution, which, in turn, contributes to improved controllability, road-holding, and riding comfort.

The downward-opening boot lid is, today, an unconventional feature but valuable in so small a car in that it provides, on occasion, a platform for carrying additional luggage. The rear number-plate is specially hinged in order that it may remain visible when the boot lid is being used in this way. The 12-volt battery, petrol tank of 5½ gallons capacity, and spare wheel are housed in the boot, which, nevertheless, provides 5⅞ cu. ft. of luggage space.

The finish and interior appointments are of the consistently high Morris 'Quality First' standard.

The seat trim on the standard model is of a pleasing silver-grey pattern woven cloth, while the de-luxe model is trimmed in duotone with grey fleck/black leathercloth—both trims blending nicely with the exterior colour finishes. The headlining is of a washable light grey material. The steering-wheel, which is two-spoked, has a central horn button and carries a finger-operated self-cancelling trafficator switch operating the flashing indicators. The fascia is simple but practical, embodying a centrally mounted dial comprising a speedometer, fuel gauge, and oil, ignition, and high beam warning lights. The toggle switch controls are mounted centrally beneath this dial and there is provision for installing heating and demisting equipment. The central dial is flanked on each side by deep, open 'glove-boxes' and the starter switch is floor-mounted immediately in front and on the
left of the driver's seat. Gear lever and hand brake are both central and floor-mounted, the latter being located between the seats.

To supplement the luggage space provided by the boot deep open 'companion boxes' are provided in each of the doors and on each side of the rear seat. There is a wide parcel shelf behind the rear seat and underneath the seat is additional useful stowage space.

The major mechanical components are carried on two sub-frames—one at the front end and the other at the rear. The front sub-frame carries the complete engine/transmission unit. This is installed in a transverse position, thus providing one of the most revolutionary features of the car and, simultaneously, economizing in underbonnet space, thereby reducing the overall length of the vehicle. Additionally such an installation gives outstandingly good access for normal routine maintenance. This sub-frame also carries the complete front suspension and is fixed to the body at six points—three on each side—using a total of 10 bolts, the mounting being solid at each point.

The rear sub-frame carries the rear suspension and is fixed to the body by four trunnion mountings incorporating rubber bushes.

Simplicity is the keynote in the design and layout of these two sub-frames.

The 850-c.c. four-cylinder in-line engine with push-rod-operated overhead valves developing 34 b.h.p. at 5,500 r.p.m. is mounted in a transverse position, the drive being transmitted to the front wheels through two short shafts. The combined gearbox and final drive is located beneath the engine and is bolted to it. Lubrication of the engine, gearbox, and final drive is carried out in one operation through the filler in the rocker cover and the oil level dipstick is readily visible and accessible. The radiator is mounted at the front of the engine, i.e. on the left-hand side, the fan drawing air through the grille in the front of the car and pushing it through the radiator and out through another grille on the left-hand 'wing' valance.

(continued on page 7)

(Above) A scene at the £3 million plant specially built at Cowley for the assembly of the Morris Mini-Minor. Overhead conveyors also play the role of temporary 'stores' thus absorbing changes in production rates

(Left) The revolutionary front sub-frame carries the transversely mounted 850 c.c. engine, transmission unit, and the complete front suspension assembly
Opening a new chapter in motoring . . .

the all British MINI-MINOR
At the inboard end of each front drive shaft, a rubber coupling provides torsional flexibility to the drive.

Wheels at the extreme corners of the body and a small turning circle make the Morris Mini-Minor the safest car on the road today.

The brilliantly designed B.M.C.-pioneered rubber suspension (rear unit shown here) requires no maintenance or lubrication whatsoever.
Seat trim on the standard model is of a pleasing silver-grey pattern woven cloth. The seats tip forward, giving easy access to the rear.

(Below) Removal of the door on this de-luxe version emphasizes the width of the door opening and the roominess of the rear compartment, unique in a car of this size. Note, too, the louvred "passenger" windows and wide rear window.
Suspension is independent all round and, at the front, consists of unequal-length wishbone arms with a tie-rod attached to the lower arm. The springing medium is a cone-shaped rubber unit mounted vertically, connected to the upper arm and controlled by telescopic dampers. The rear suspension is by a single trailing arm on either side to which the hub and brake assembly are fixed. Here again rubber spring units are employed, but in this case they operate in a horizontal plane. Telescopic dampers are also used at the rear.

The rubber cone springs, another innovation, take up little space, are silent in operation, are of almost negligible weight, and, there being no greasing involved, require the minimum degree of maintenance.

Steering is by the very precise rack-and-pinion gear which is fixed to the toepiece of the body shell.

This combination of suspension and steering gives dart-like stability on straight roads, while at the same time ensuring that the Mini-Minor can be driven through corners with the greatest degree of precision.

Seven-inch hydraulic brakes giving a total friction area of 67½ sq. in. are employed all round with a single leading shoe both front and rear. The braking system incorporates an entirely new and important safety device consisting of a pressure-limiting valve. At a point near maximum braking the valve operates to cut off the rear wheel braking and transfer full power to the front wheels, thus avoiding locking of the rear wheels.

Full-size headlights are combined with sidelights in one unit and the flashers are amber-coloured and separate. Rear lights are combined in one unit incorporating red stop and tail lights, reflectors, and amber-coloured flashers.

This, then, is the astounding Morris Mini-Minor—not a bubble car but a fully engineered project providing exceptional performance combined with great economy, unsurpassed stamina, and ease of manoeuvrability. The car destined to appeal alike to the city dweller or the countryman; ideal for travelling to the office, doing the shopping, taking the children to school, or for that long-dreamed-of holiday either at home or abroad.

It has been said that the success of a finished product finally rests on the acquisition of the highest team spirit between the many engineers engaged in the creation of a new car. The Morris Mini-Minor is a car of outstanding features, of new ideas and innovations all brought together by such a team.

Throughout its development, from the original idea on the back of an envelope, through the ‘mock-up’ and prototype stages, on the arduous 20,000-mile Continental testing (which included some of the toughest mountain country in Spain as well as the excellent motor roads of France), and throughout the long night watches of thousands of miles in this country it has been a team effort. By combining excellent functional performance with the greatest possible mechanical simplicity the team has unified the features and ideas and, together with advanced technical innovations embodied to work in close harmony, have produced, in the Morris Mini-Minor, a car of a standard which will sweep aside all competition and remain unchallenged and unchallengeable for a very great while.

SPECIFICATION


Cooling: By pressurized thermostatically controlled system with impeller pump and fan.

Ignition: Battery and coil.


Brakes: Lockheed hydraulic fully compensated. Pendent-type foot pedal, 7-in. diameter brake-drums front and rear with leading and trailing shoes. Pull-up lever operates the hand brake on the rear drums.

Suspension: Independent all round. Front—by rubber cone spring units, upper and lower suspension arms attached to swivel pin hubs by ball joints. Rear—by rubber cone spring units and radius arms. Hydraulic telescopic dampers front and rear.

Wheels and Tyres: Ventilated disc-type wheels with four-stud fixing. Dunlop 5:20—10 tubeless tyres. Spare wheel housed in luggage boot (5½ cu. ft. capacity). Road wheels finished in white on all models.

Steering: Rack and pinion with direct linkage to steering-arms on swivel pins. 15½-in. diameter two-spoke steering-wheel. Turning circle 30 ft. Track—front 3 ft. 11½ in., rear 3 ft. 9½ in.

COLOURS

Standard: White, Red, or Blue with grey upholstery. De-luxe: grey fleck and black upholstery and dark grey, cherry-red, or blue carpet to suit body colour.

PRICES

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And behind the Scenes...

B.M.C. Service Ltd. back the launching of the Morris Mini-Minor with a quarter of a million spare parts

ONE hundred per cent. service backing for the new Morris Mini-Minor. That is the behind-the-scenes achievement of B.M.C. Service Ltd.—fulfilled on the day of announcement (26 August 1959).

To do this a quarter of a million spare parts, centrally controlled, were made available on launching day to meet any demand from any part of the world.

This is how it was done.

When new models of cars are first announced to the trade B.M.C. Service sends out an urgent list to Distributors and Dealers with the request that this should be completed and sent back immediately by return air mail. This list is known as the ‘Crash List’. Its purpose is to ensure that the people concerned should have available for immediate use, on receiving a consignment of new cars, a stock of those parts which are easily damaged, or pifferable in transit, together with supplies of parts which may be damaged in slight or superficial accidents. If, for instance, an owner, blinded by pride in his new possession, drives out of the showroom and into a lorry, his car can be whipped back again and made ready for the road once more before his tears of chagrin have had time to dry.

This drill was carried out in the case of the revolutionary Morris Mini-Minor. In this instance the Crash List contained 92 items, including, among others, windscreen glasses, sump and gearbox casings, finisher bumpers, front and rear, bonnet panel assemblies, and light assembly units.

As soon as a completed Crash List is received from a Distributor or Dealer it is immediately progressed by B.M.C. Service and sent off by fastest surface means. Should any item on the list be in temporary short supply, the order is made up without it and sent off. The missing item is then sent out Air Freight at the Company’s expense, thus ensuring that it arrives at the same time, or even slightly earlier, than the rest of the order.

With this system Concessionaires, Subsidiary Companies, Distributors, and Dealers receive their supplies, according to their individual Crash List orders, by the time they receive the first consignment of the new cars.

Once the initial Crash List orders have been dealt with, Distributors and Dealers are then asked to fill in their general stock orders and to return these to B.M.C. Service, where they will be progressed in the normal way. Thus it will be ensured that there will be no delay in meeting service requirements.

At the same time that general stock lists are sent out other Service publications, including Owner’s Handbooks, Workshop Manuals, and Repair Time Schedules are also made available. Parts Lists are reprinted at regular intervals incorporating any parts amendments up to the date of reprinting: amendments themselves are sent out as and when they occur.

Because this car is of a quite new and revolutionary design, special classes are held at the B.M.C. Service School, Cowley, for the benefit of Service Managers. Instruction is given on the maintenance of engine, gearbox, transmission, front and rear suspension units, steering and brakes, and the use of service tools applicable to this model, as well as on any other service problems peculiar to the Morris Mini-Minor which are likely to arise.

In fact, following its principle of maximum service and maximum efficiency, B.M.C. Service Ltd. has planned to cover every contingency with the intention of making absolutely certain that, on the service side, no purchaser of this car shall have just cause to regret his choice.

Published by the Publicity Department, The Nuffield Organization, Cowley, Oxford.

Printed in England at The Nuffield Press Ltd., Cowley, Oxford. 36/168 (24989) 9/59—50p