

THE ROVER 2000

COLOUR MAGAZINE

OCTOBER 1963



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OPERATION STYLING

THE **ROVER 2000**
COLOUR MAGAZINE
OCTOBER 1963

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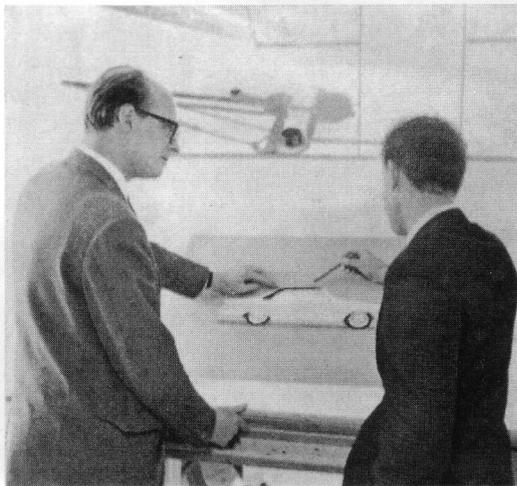
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WHEN P.6 is examined for the first time, reactions are, of course, varied and entirely personal, but there are good reasons for every feature of its design.

In the summer of 1957 when this particular project was commenced by Rover Styling, it created immense personal interest, essentially because it was intended to appeal to the 'younger thinking' and thereby necessitated an entirely new approach.

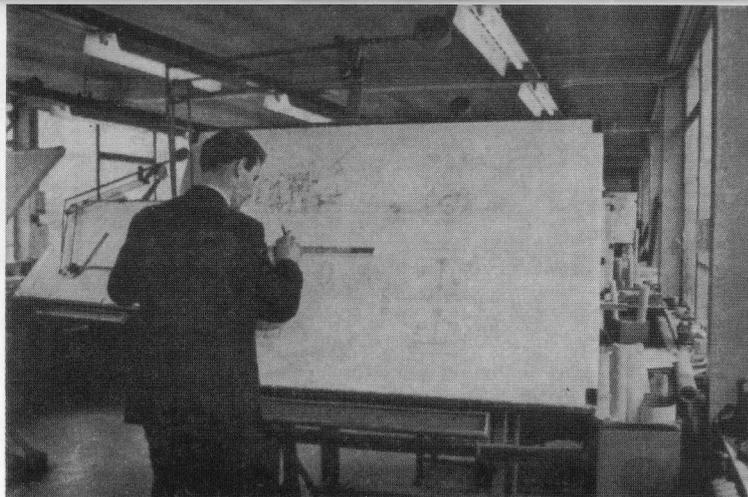
base unit structure was to be adopted. There were several reasons for this: ready interchangeability of all exterior finisher panels, ease of assembly and reduction in damage to paint due to the panels not being fitted until the final line after all rectification, and subsequent ease of servicing. This also enables the base unit, as a running structure, to be developed to ultimate refinement, including all controls, instrumentation, seating, etc.,



The first sketches of the new shape are produced, examined and discussed. This is the first thinking and many changes will be made.

Detailed general arrangement drawings are made to give an accurate overall picture of the design.

The Rover 2000 (designated P.6 in the factory) was conceived on the drawing boards of the Company's Styling Department and the whole project was carried through by Rover Stylists, Designers and Engineers. This section of the magazine briefly tells the story of Styling, Planning and Production and describes the main features of this exciting and important new addition to the Rover range of cars.



It was decided that the car should comfortably accommodate four people and occasionally carry five, together with adequate luggage, and have as comprehensive a specification as possible to ensure its wide appeal. This included a lightweight O.H.C. 4-cylinder engine, a 4-speed, all synchromesh gearbox, independent front suspension and Rover de Dion rear suspension, to provide impeccable handling and roadholding. All this at reasonable initial cost and with no reduction in quality whatsoever from the normal Rover standard of finish and refinement was a tall order and demanded drastic Body Styling policy.

It had already been decided, after months of investigation by Design Research, that a

and when an external visual change is required, few, if any of these points need be affected, thereby appreciably reducing the tooling costs of a visually new model. The additional fringe benefits with this type of structure are production flexibility, ease of inspection and mechanical testing.

This decision to use a base unit together with the general 'high tone' engineering specification dictated that a ruthless styling policy be adopted in an endeavour to maintain the low projected price.

An exterior form styling policy was determined with the accent on a simple classical shape, devoid of superfluous adornment, the visual interest and character being attained by pure sculptural form of the panels thereby



The next stage in the styling operation is the building of 1/4-scale clay models. The car in miniature begins to take shape.

eliminating the necessity for rubbing strips and applied embellishments. This principle was taken to the extreme and many parts including the conventional radiator grille and heater intake grille were 'designed-out' being

replaced with partly concealed intake apertures.

This process was adopted to lessen the cost of tooling and manufacture, assembly, storage and ultimate service problems and also to reduce weight. Even door handles were designed as a universal 'one-off' part, interchangeable on any door and having separate buttons.

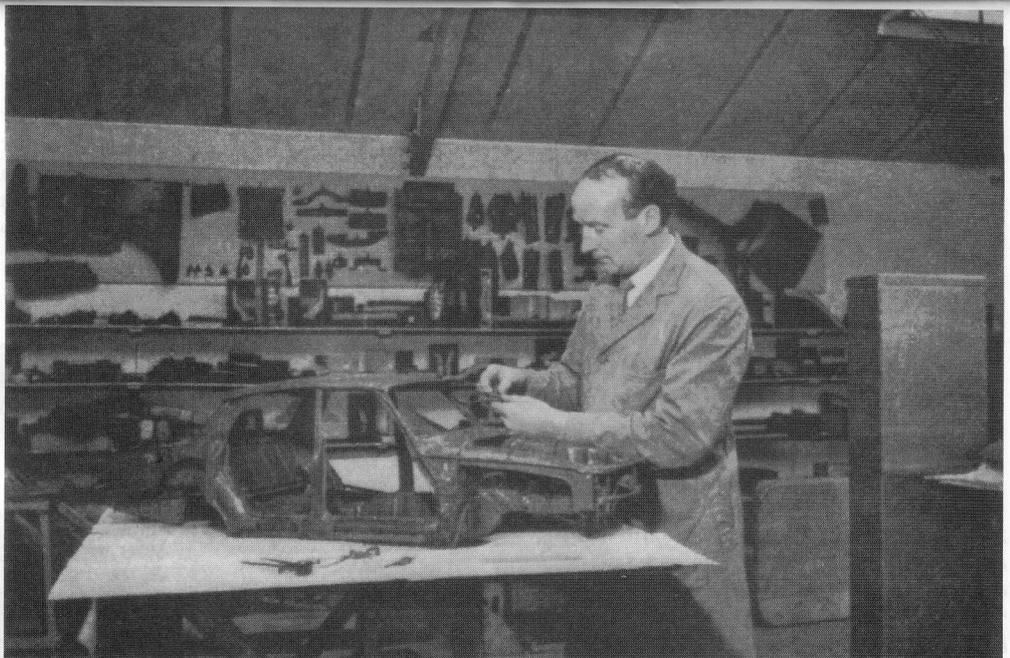
From this basic principle, a simple aerodynamic form was designed to provide the 'younger look' and reduce wind resistance, thus increasing performance and improving economy. With centre of pressure sufficiently rearwards straight line running at high speeds on motorways was ensured. The bonnet and screen planes were designed to provide the optimum pressure point at the root of the screen, where the heater/ventilation intake is located. These features will be seen by examining the early 1/4-scale clay model shown.

Concurrently with the 1/4-scale and full size clay model work in progress during early 1958, a full-size interior accommodation mock-up was also produced to ensure that the basic 'habitable compartment' requirements were maintained.

The new car required equivalent interior dimensions to those of the popular P.4 model together with a 50 per cent increased boot capacity. Careful consideration was needed to pack all this into a vehicle some seven inches lower, four inches shorter and of slightly less width.

From the basic model, the first prototype was produced in March 1959 and while information was being gained on the structure and running gear by development testing of this and subsequent versions, the

For the base unit, a Durestos model is produced to provide tangible structural and panel fitting information.



Styling Department was adjusting the original concept to improve engineering and aesthetic requirements.

The radiator intake aperture was increased to improve engine cooling and an extruded aluminium grille, incorporating the head-lamp bezels, was added. This grille, the first of its type ever, was inspired by the necessity to obtain some 80 per cent intake aperture which could not be obtained with equivalent strength and visual cleanliness as a normal pressing. The front wings were

raised to provide extreme width sighting points and retain the family resemblance to the 3-Litre. Other innumerable improvements continued, terminating in the last engineering prototype in early 1962.

Interior styling was approached along the same lines but here safety, elegance, comfort and passenger and parcel accommodation were foremost considerations.

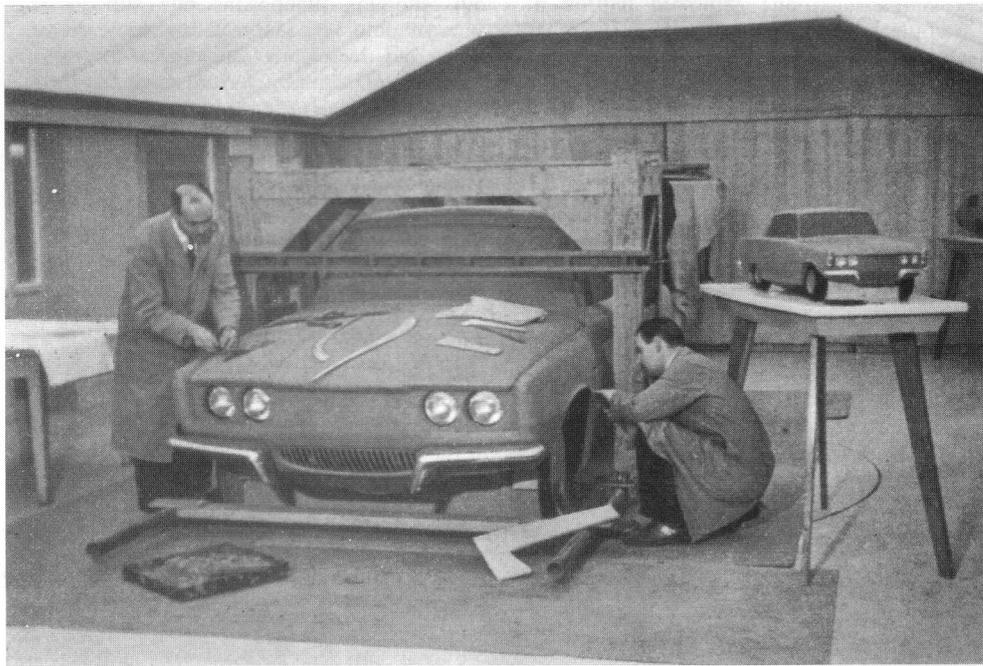
The physical requirements coupled with the need to incorporate safety features, demanded by legislation in at least three European countries, inspired the completely original concept of placing the parcel shelf above the glove boxes, thereby reversing the conventional procedure and enabling the available space to be used to maximum effect. The instrument panel with strip type ribbon speedometer was used because ergonomically this proved to be the most efficient for rapid reading in today's congested traffic. It can be placed on one side or the other dependent upon whether the vehicle is right- or left-hand drive, as can be the steering column mounted switches for ease of control. All other controls and switches are centrally mounted on a switch panel, heater/radio console and tunnel finisher and therefore remain constant for all markets.

The new low position of the glove boxes enables their padded angled faces to form large flat crash pads in place of the normal parcel shelf edge.

Due to the perhaps controversial design, it was decided to conceal the extremeness of the facia design by cloaking the concept as a

whole with a traditional material look, but the complexity of design, function and cost precluded the use of traditional materials. Hence a new medium, Thermo-Plastics, was selected as being the best material to provide the cleanliness of visual form, engineering function and economy of manufacture.

In an endeavour to ensure that the P.6 has every amenity for its passengers, it was decided to include all the luxury of the larger cars but 'design-down' to a lower price.

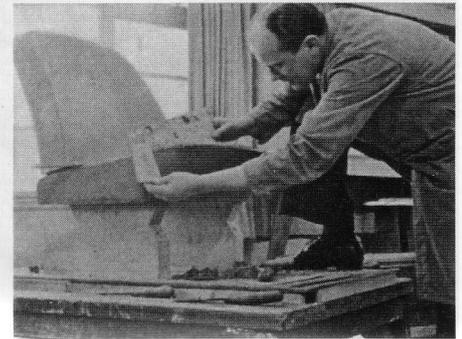


Full-scale clay models follow and here particular attention is paid to detail shaping and moulding. This is the basic form from which the final exterior style will be taken.

Bottom left. Interior equipment and styling is planned in an accommodation mock-up which is a wood frame constructed to perfect size and shape into which all the interior furnishing is fitted.

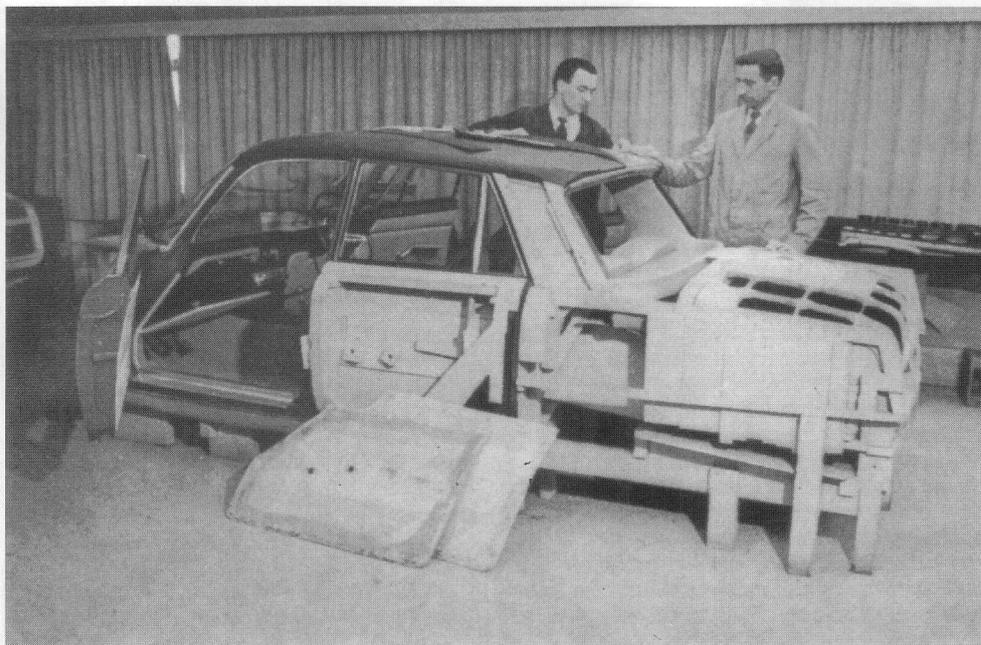
To this end, the new rake adjustment bucket seat was designed to reduce the weight by half compared with its 3-Litre counterpart and yet provide improved physical support and mechanical function. To ensure that seat form was correct physiologically, it was first sculpted in clay and the mechanical details designed within these contours, having both infinite squab rake adjustment and instantaneous raising and lowering. Combined with this, the patented locking mechanism incorporates an inertia safety device which in the event of a collision absorbs the impact load and thereby reduces the chance of serious injury.

The Rover-designed front bucket seats were first sculpted in clay to ensure their correct form. Dimensions and contours are taken from the model and the details incorporated in the finished product.



Eventually, the styling exercise concluded with the creation of the exterior and interior colours, designed to compliment the interior trim concept and selected to enhance the 'younger thinking' look. P.6 is being introduced in brighter though still subtle colours.

What colours will suit the new car? This question must be carefully considered, and much mixing and matching will take place before it is finally answered.



As the new project reached its early production stage the styling function became one of constant vigilance to ensure that the production parts were exactly as originally intended and that the standards of finish expected were thoroughly understood by Production and Inspection Departments.

It is perhaps revealing that the pair of front seats mentioned above save 1 cwt. over the 3-Litre version and yet have greater structural strength. It is by this type of concentrated thinking having been applied throughout the entire P.6 project, whether it be on panel form and their ease of removal, base unit structure and its flexibility for future designs, or interior safety and use of new materials to this end, that P.6 has become possibly one of the most discussed vehicles introduced for many years.