A red-tinted photograph of a car body on an assembly line. The car is in the foreground, and the background shows a complex industrial structure with many levels and pipes. The text "BMC IN AUSTRALIA" is overlaid on the right side of the image.

BMC IN AUSTRALIA



THE BRITISH MOTOR CORPORATION (AUSTRALIA) PTY. LTD.



BMC IN AUSTRALIA



A progress account of the Victoria Park plant
of the British Motor Corporation (Australia) Pty. Ltd.
comprising:

The Austin Motor Company (Australia) Pty. Ltd.

Nuffield (Australia) Pty. Ltd.

Fisher & Ludlow (Australia) Pty. Ltd.



Sir Leonard Lord, K.B.E.
Chairman and Joint Managing Director
of the British Motor Corporation



Mr. G. W. Harriman, C.B.E.
Deputy Chairman and
Joint Managing Director
of B.M.C. Limited



Mr. G. A. Lloyd
Joint Managing Director of
B.M.C. Australian Companies.



Mr. H. J. Graves
Joint Managing Director of
B.M.C. Australian Companies.

The story of B.M.C. in Australia is one of vision and enterprise. It is a tribute to the skill and energy of British and Australian executives and engineers, who have founded a great automobile company with an initial capacity of 50,000 vehicles a year. This further development of the Victoria Park plant represents an additional investment of £A13,000,000, a notable contribution to Australia's continued industrial expansion and evidence of the Corporation's faith in the future.

PIONEERS OF THE BRITISH MOTORING INDUSTRY



The Rt. Hon. Viscount Nuffield,
G.B.E., F.R.C.S., F.R.S.
Founder of the Morris
Organisation



The late Lord Austin
Founder of the Austin
Company

THE CHAIRMAN'S MESSAGE

I have helped to guide the growth of BMC in Australia with a great deal of satisfaction.

The assembly of vehicles at Victoria Park, Sydney, started in 1950. Progress was rapid, and so encouraging that the decision to provide complete manufacturing facilities seemed the logical thing to do. The task was begun in 1954, and the planning and new construction of these past few years is now complete.

This makes us a true part of Australia; and I look forward to the greater contribution my Company will make to the continually expanding need for transportation.

My comments would be incomplete without a warm word of thanks to the many members of our Staff, both in England and Australia, who have worked together to make all this possible.

This book has found its way into your hands, perhaps through your interest in motor vehicles; in that case, we begin an acquaintance on common ground. I hope it will interest, help to strengthen the link between us and our many friends throughout Australia, and form new ones with those who learn of us through its pages.



Saddling enclosure at the Victoria Park racecourse early this century.



The Club House and Members' Stand is now used as offices by BMC (Australia).

In the Beginning, Now, and in the Near Future



Once a totalisator, now a portion of the Service Department.

IN THE BEGINNING . . .

What is now the BMC has its roots in the early beginnings of the motor industry in Great Britain. Of the many manufacturers of those days the two most vigorous, Austin and Morris—and to a lesser degree Wolseley, Riley and M.G.—combined their separate strengths and traditions to form the British Motor Corporation. That was in 1951. The Australian interests of Austin and Morris later came together and became BMC (Australia).

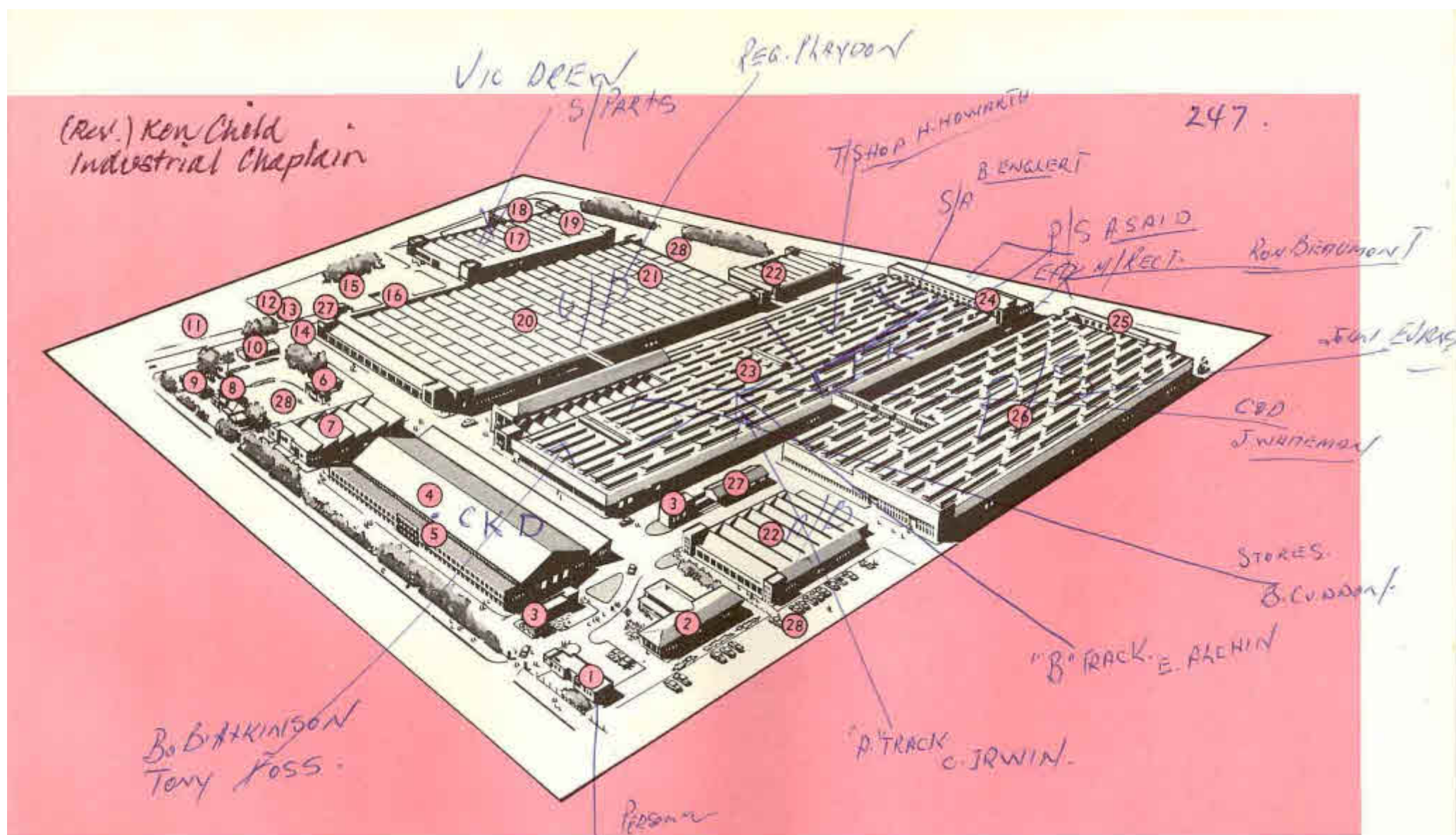
Soon afterwards, a decision was made to expand what was until then the assembly of imported vehicles into complete manufacture. After examining many sites, it was decided to develop the Victoria Park Racecourse, three miles from the heart of Sydney.

NOW . . .

From assembly of imported vehicles to full manufacture from local materials is a long stride. It meant the development of an area of 57 acres for buildings, roads and ancillary facilities; installation of machines for manufacturing engines, transmission and suspension systems; presses and welders for bodies; painting and assembly equipment for final assembly; literally miles of conveyors for material movement; canteens and other amenities for the convenience of staff. But, above all, it meant the bringing together of many men, each skilled in his own fashion—an Organization.

AND IN THE FUTURE . . .

Australia's future is our future. Our thoughts, plans and actions all stem from our belief in the continued growth of Australia. We shall strive to grow with it.



Above: The architect's perspective of the completed plant.

Victoria Park

- | | | | |
|----------------------------------|----------------------------|--|---|
| 1 Gatehouse and personnel office | 8 Service offices | 16 Car loading dock | 23 Car assembly building |
| 2 Canteen | 9 Technical offices | 17 Service stores building | 24 Administrative offices |
| 3 Paint house | 10 Despatch office | 18 Service school and offices | 25 Fisher and Ludlow administrative offices |
| 4 C.K.D. assembly plant | 11 Electricity Council lot | 19 Service repairs | 26 Fisher and Ludlow press shop |
| 5 Administrative offices | 12 Incinerator | 20 Engine, transmissions and suspensions factory | 27 Boiler and compressor house |
| 6 Administration building | 13 Sewage ejector | 21 General component factory | 28 Car park |
| 7 Final preparation building | 14 Swarf station | 22 Amenities and works canteen | |
| | 15 Car marshalling area | | |

Right: A scale model is designed in plasticine.
Far Right: Every single component in a new model comes first from the draughtsman's pen. Thousands of drawings are needed by product engineers, die and tool makers and quality control supervisors.



Above: A new model begins on a drawing board in the Styling Department. Years separate the first sketch and the first full-scale model.

How a BMC (Australia) Car is Born

Design and development of a new vehicle may take many years and cost hundreds of thousands of pounds. Specifications based on the latest technical advances, design trends and local conditions and requirements are taken into account. Stylists create the body design on the drawing board and a scale model in plasticine. Engineers join the stylists and development of the mechanical components begins. Meanwhile draughtsmen prepare drawings of engine and body parts.

A full-scale model in wood and clay is fashioned and

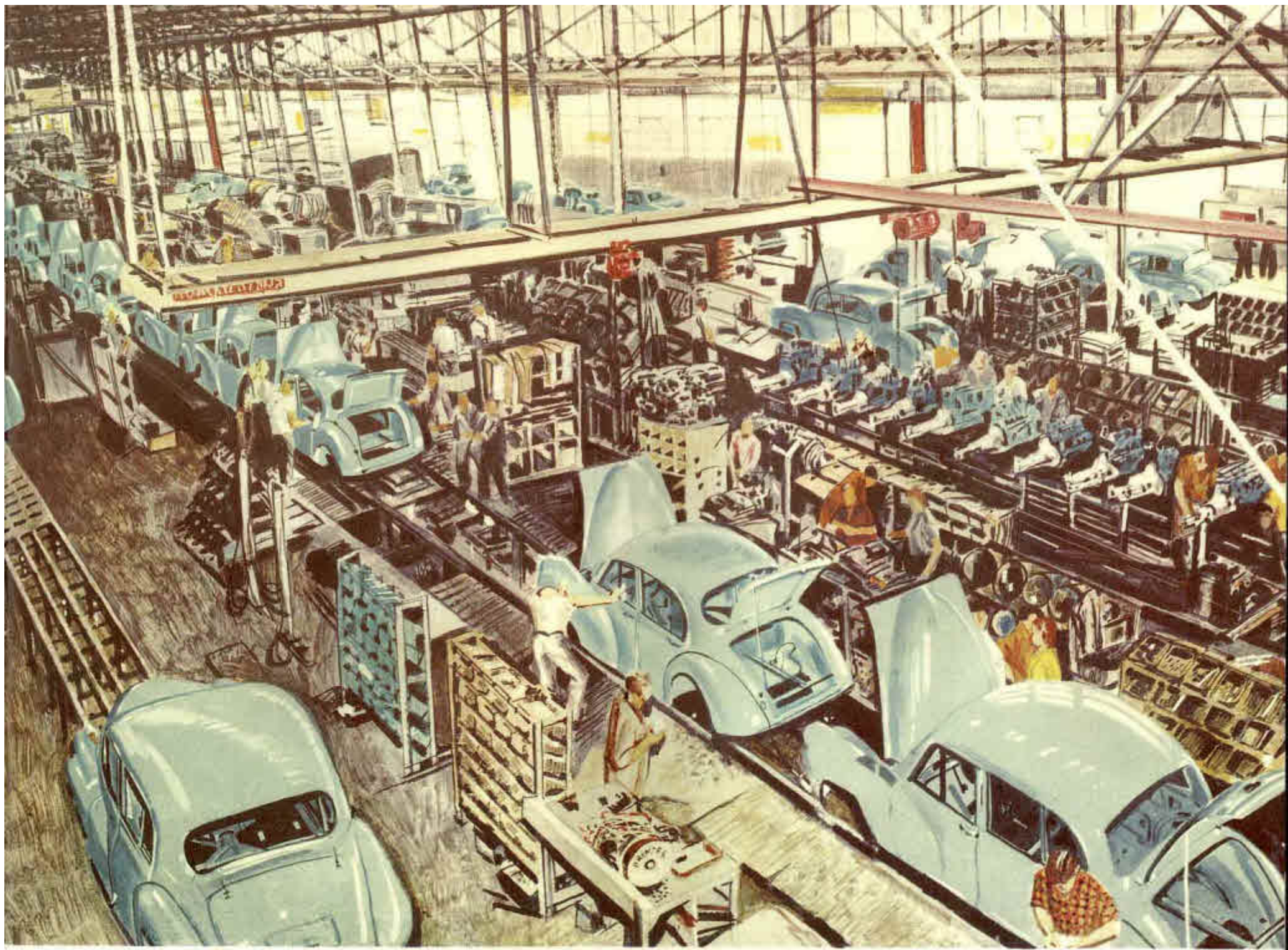
the design of items such as nameplates, trims and seating gets under way. The result of these many skills is the production of an expensive hand-made prototype which is then subject to every strain the new model could encounter. Many months are devoted to the testing and modification of every component, giving a true picture of how the vehicle will perform.

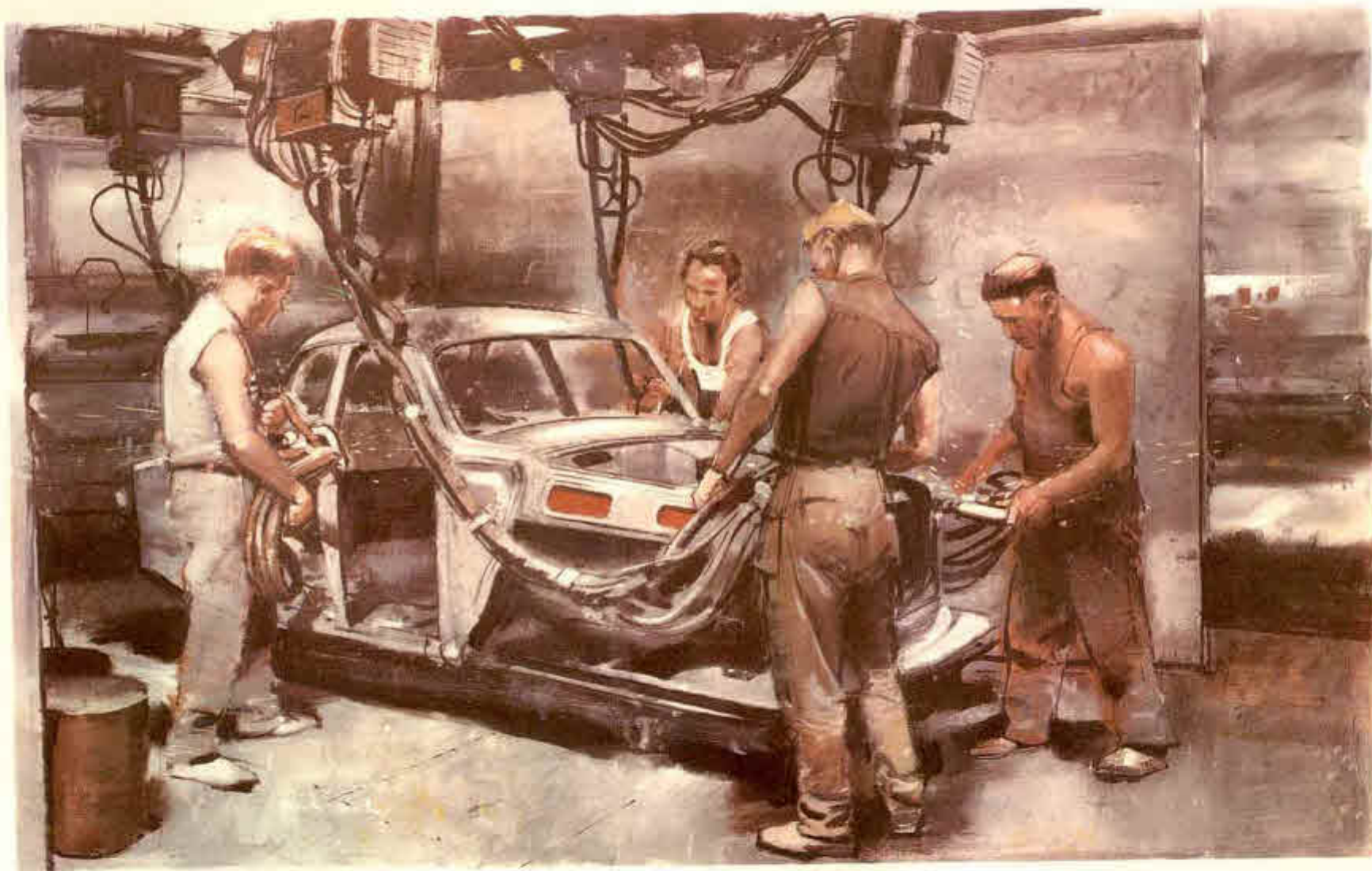
When the last specification has been agreed upon and the last detail checked, the vehicle is ready for the final judge . . . the motorist.



Left: Experience gained from the performance and general behaviour of the prototype is invaluable when full-scale production begins. A new model may cover 100,000 miles in its road tests.

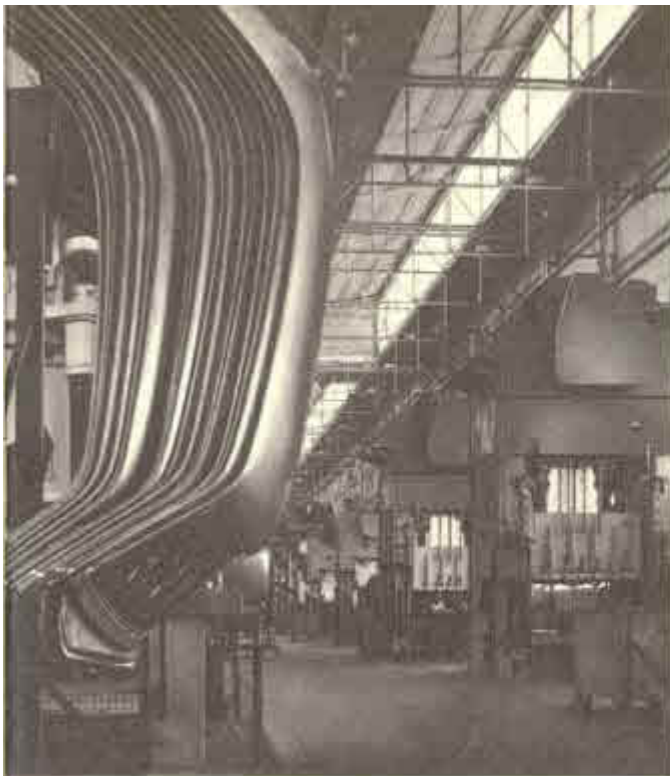
Opposite page: The C.K.D. assembly plant which commenced operations in 1950 and has since turned out tens of thousands of Morris and Austin vehicles, including the famous Morris Minor "1000," here pictured on the production line.





Above: Each of the 205 spot welders installed in the press shop welds a different part of a vehicle's body as it moves along the production line. They are electrically

operated and water cooled and comprise both movable and fixed units. Movable units weld bonnets, doors and boot lids, while fixed units weld all other parts.



Left: 57 presses, ranging from 10 to 750 tons, produce components which BMC (Australia) once imported.

Below Left: Conveyor systems feed components to the body-assembly line and transport completed body shells to an adjacent factory for bonderizing, prime painting and finish colours.

Right: Soon the only imports will be special vehicles and parts to service imported cars and trucks.



Vehicle Bodies—The Changing Picture



Until Victoria Park's new factories went into production, BMC (Australia) was equipped only to assemble C.K.D. vehicles. C.K.D. is the import of vehicles, in components, or "completely knocked down" condition in easily transportable packing cases for assembly in the market for which they are destined.

To-day, with the Victoria Park Press Shop in production, the picture is changing. From 57 presses come components which once were imported. From scores of machines come the parts which only England once made.

The precision of the modern presses, ranging from 10 to 750 tons, and the tools used in them ensure accurate panel work and durable car bodies.

In a matter of seconds, flat sheets of steel become easily recognisable as body panels. They are welded together, giving the body the rigidity it must have to withstand the stresses that occur throughout its working life.

Fisher & Ludlow (Australia) Pty. Ltd., a BMC subsidiary, built, and is operating, the Press Shop.



Above: The BMC (Australia) car assembly building where body shells move steadily along the production line. The moving track is timed to allow each man to complete his specific job in the assembly routine.



Accuracy of pressings and craftsman-assembly ensure vehicle quality and performance. Above left: A roof is welded to a partly assembled body. Above right: A flat steel plate put into this press becomes a wheel hubcap in a matter of seconds.

As the body grows, drills, soft hammers, files and polishers move over it, producing a smooth surface for the paint. Vehicles move constantly on the endless belts of production tracks.



Body Pressings

Within the four-acre body press shop, hundreds of individual tasks are co-ordinated to make one smooth operation.

The giant presses stamp out the body parts. Overhead conveyors move the parts to different points along the assembly line in the right quantities and at the right time.

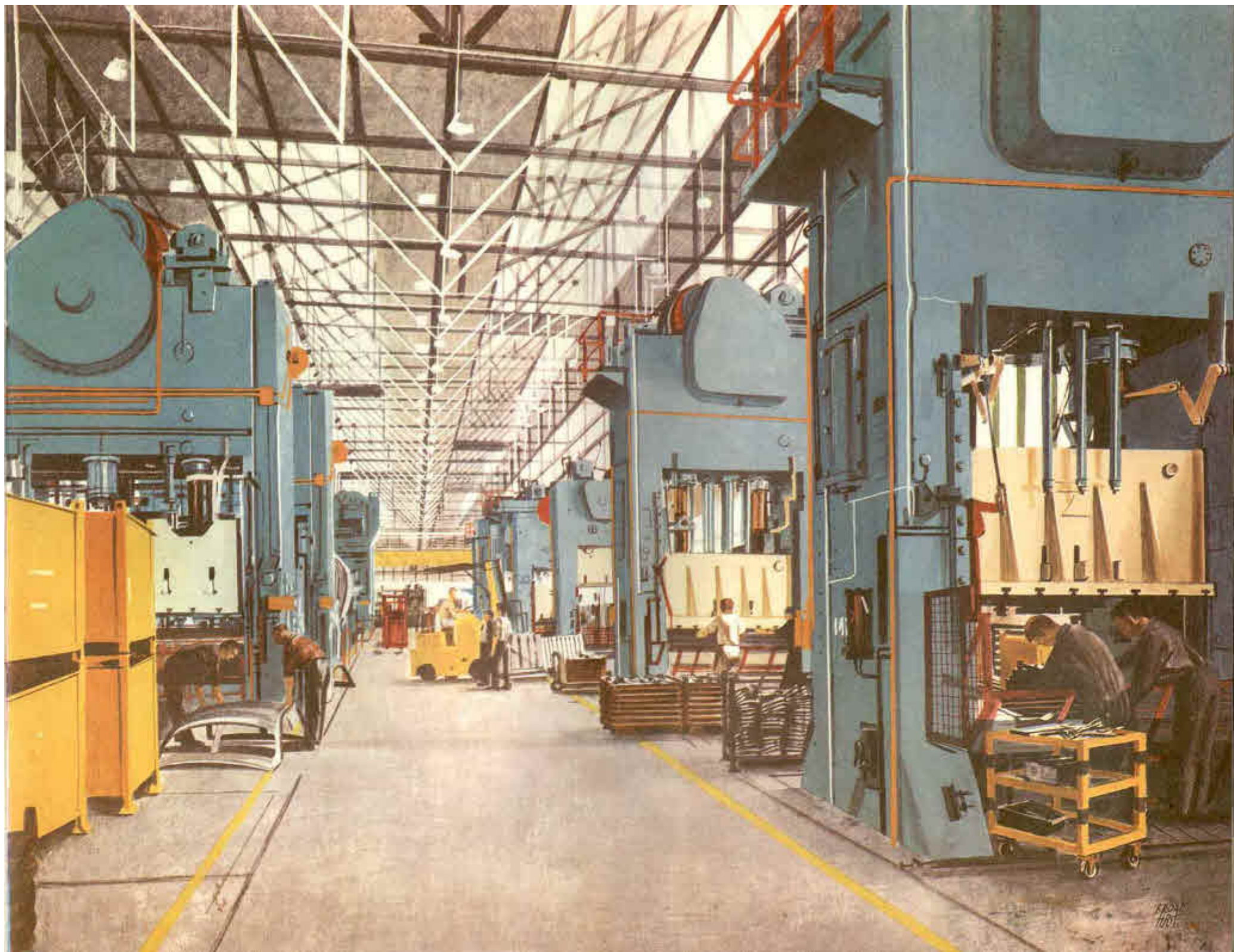
The floor panel begins its journey along the moving line. In showers of welding sparks, the front end is added, the body sides appear, the roof is welded on.

Drills whirr through the steel; soft hammers level out uneven surfaces; files remove burred edges and polishers smooth the shell.

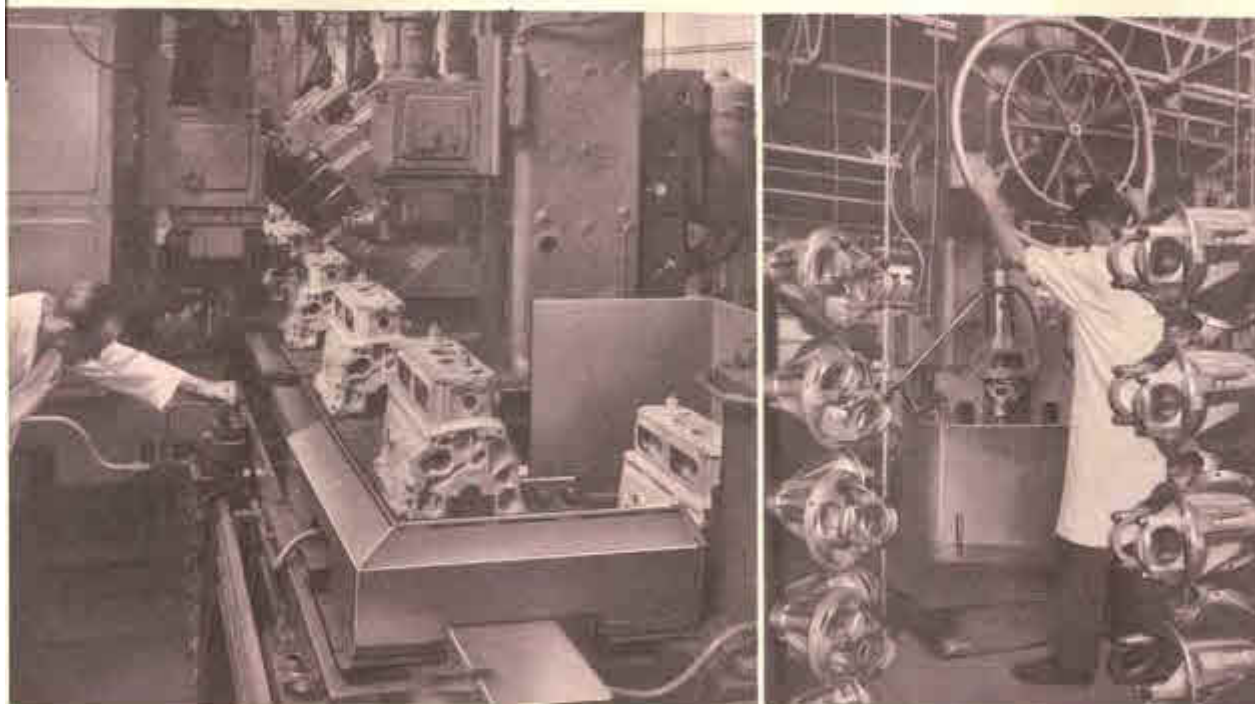
Then, after a final check, the body is mechanically hoisted to an overhead conveyor and moves to the next production stage.

Accuracy in manufacture, careful assembly and testing ensure the dependable performance of BMC (Australia) bodies.

Opposite page: Lines of presses produce the hundreds of body parts which go into BMC (Australia) vehicles. Automatic safety guards protect the operators.



Engines, Axles, Gearboxes



Above: This electrically controlled transfer machine is one of the four that turns rough castings into completely machined cylinder blocks. Above right: Machining a differential housing. This is one of the 780 machines which help manufacture 84 different components in the engine factory.

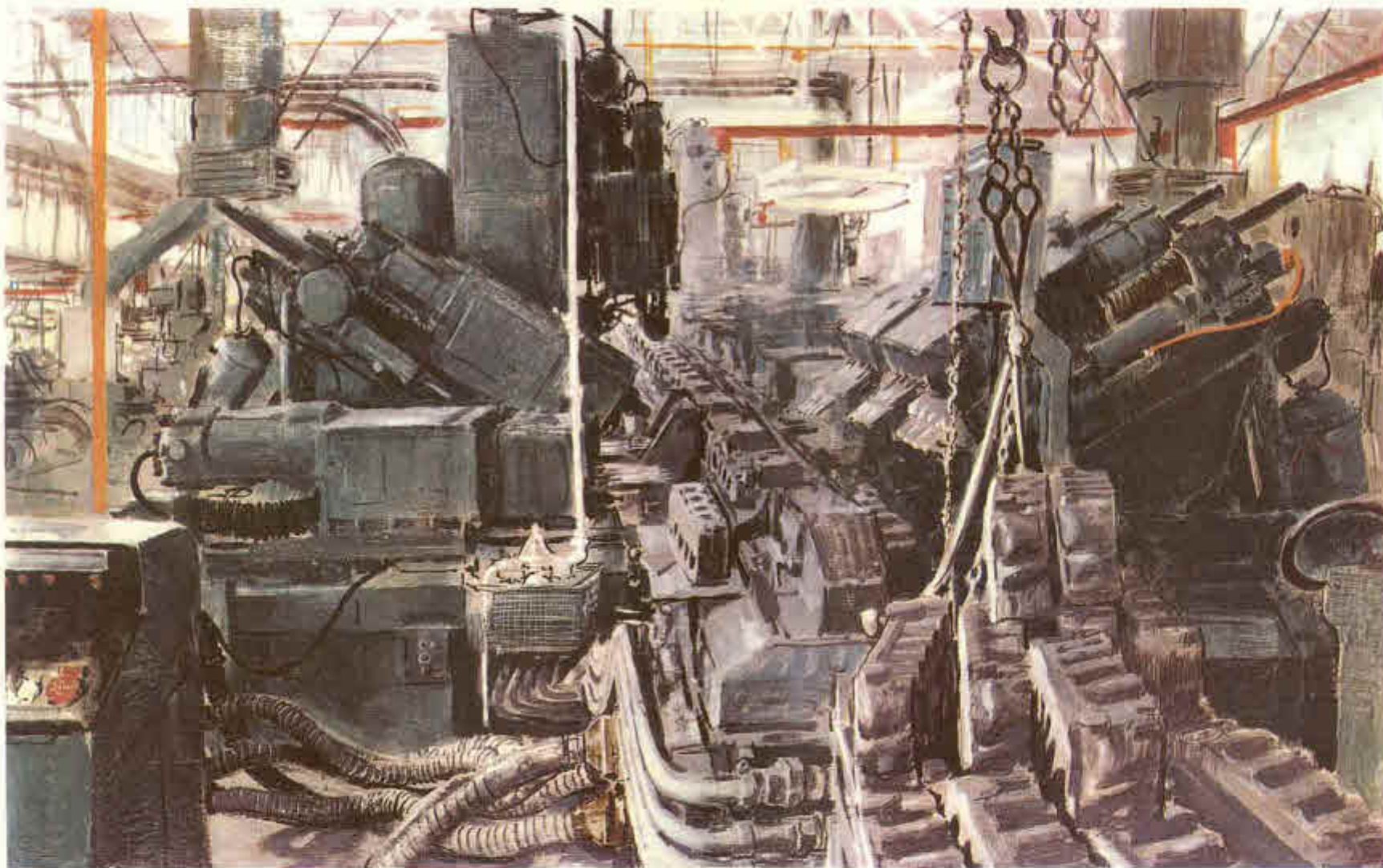
In baths of constantly running oil, high-speed drills, grinders, cutters and mechanical welding machines produce parts for BMC (Australia) engines, gearboxes, rear axles and front suspension assemblies.

An automatic-transfer machine mills, drills, taps and reams all faces and holes in a cylinder head in thirty-seven separate operations, and a series of transfer units machines cylinder blocks.

Other castings begin their journeys down lines of machines, pausing for an operation, then proceeding to the next stage. Seven hundred and eighty machines work on eighty-four different components.

Overhead a half-mile of conveyors move machined parts to exactly where they are wanted in the marshalling section where they are assembled. A complete assembly of 250 separate parts comes off the line every four minutes.

The factory covers four acres, has a capacity of 1,000 units a week and employs 870 men and women of 13 different trades.



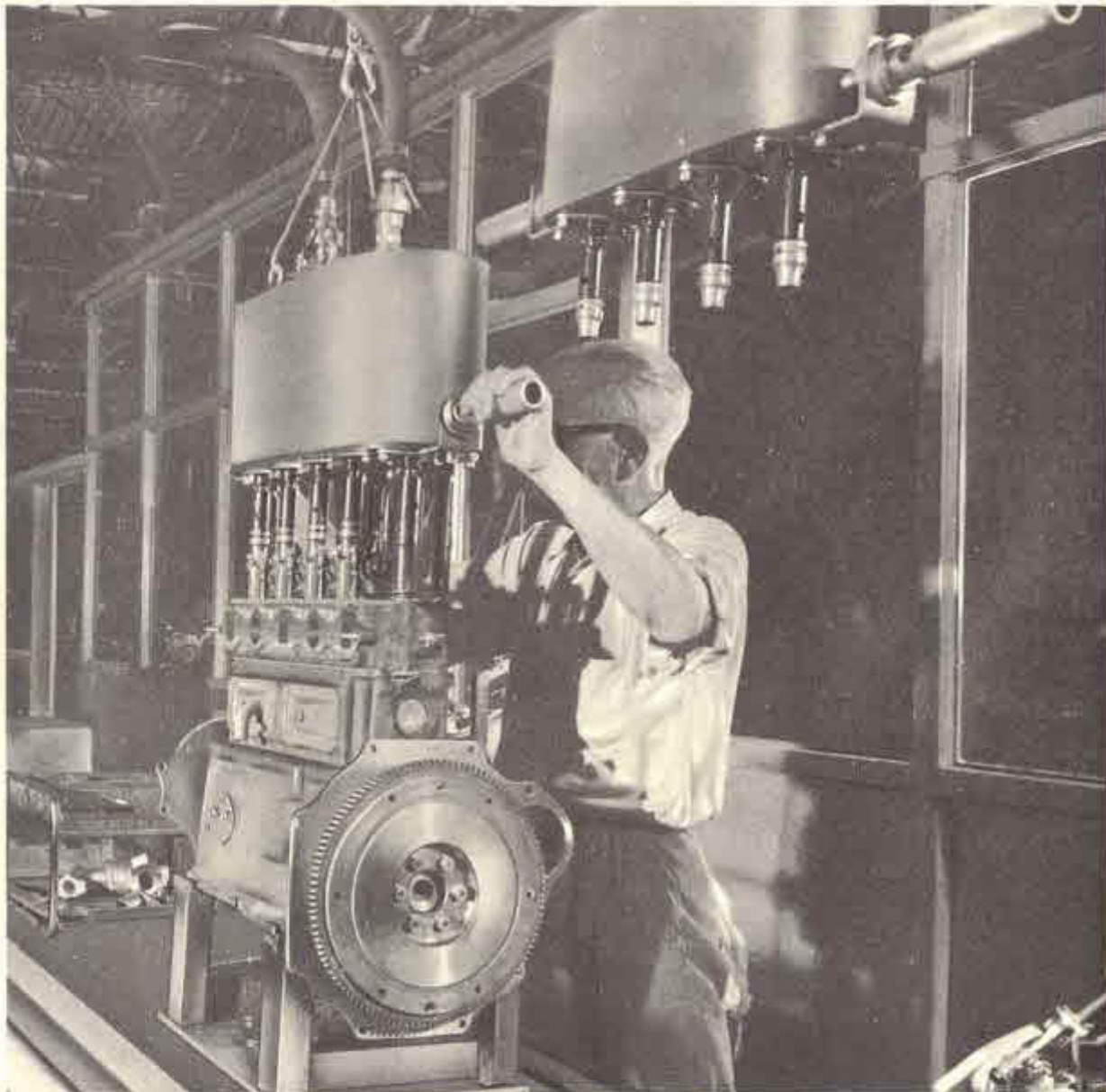
Above: Thirty-seven separate machining operations are carried out by this twenty-seven-station transfer machine in the engine gearbox and axle factory at Victoria Park. It mills, drills, taps and reams all faces and holes in an engine's cylinder head. It is electrically controlled and is operated by a loader and an unloader.



Above: Each completed gearbox is the result of precision engineering, constantly checked for accuracy at all stages of manufacture.

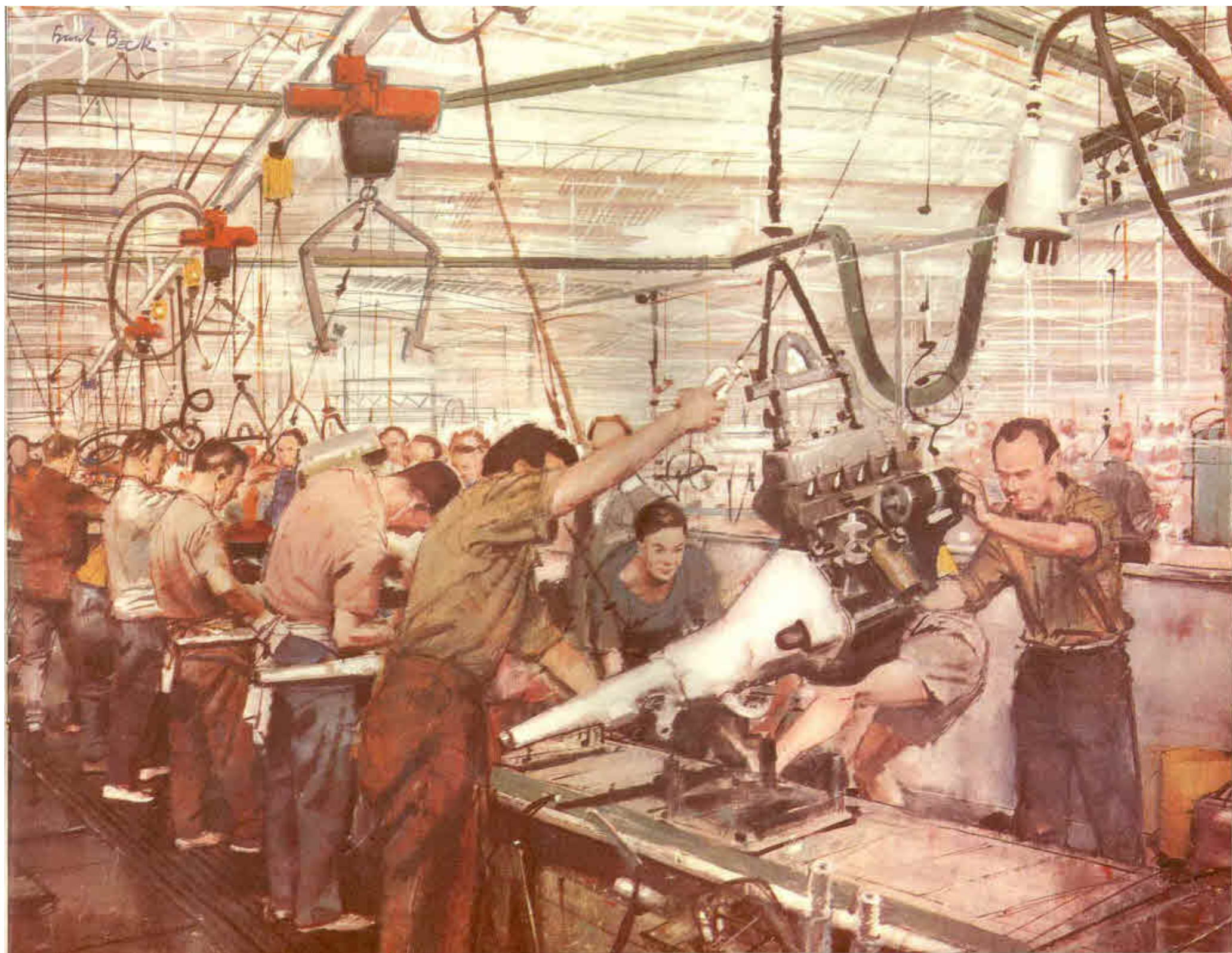


Above: Skilled hands put together the axle units. Workmen receive in marshalling baskets all the components they need for each unit.



Above: Securing a cylinder head to the engine block by air-powered, multiple-torque units which tighten the studs.

Opposite page: Cylinder block, bearings, crankshaft and pistons have all come into position on the engine assembly line. Here a completed engine is hung on a conveyor which takes it into an electro-static paint booth for final painting.



Final Assembly

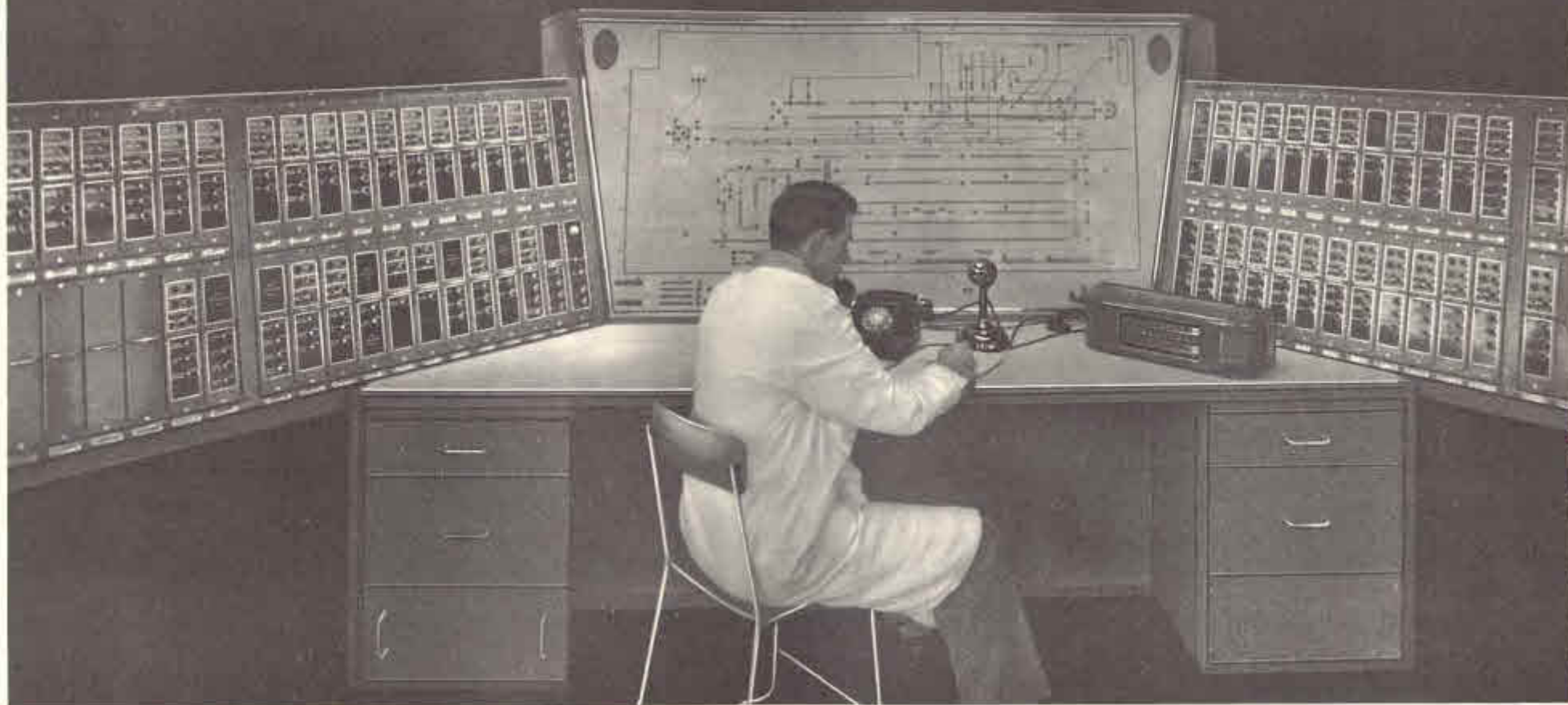
In the car-assembly building, 570 feet long and 300 feet wide, mechanisation combines with manual skill to produce a vehicle every four minutes.

The assembly plant has 900 feet of floor track and 4,620 feet of overhead conveyors. The body-trim track moves at 4.3 feet per minute and the final assembly track at 3.75 feet per minute. One hundred electric motors are used to drive more than 70 overhead and floor conveyors.



Left: On conveyors, bodies are transformed into complete cars by the progressive installation of the mechanical components.

Above: At the end of the assembly line the cars are driven off under their own power for final inspection and tests before delivery to waiting buyers.



Above: This control panel is the "nerve centre" of the intricate overhead conveyor and floor-track system in the main assembly building. On it, by means of a series of red-and-green lights, any breakdown in the system is recorded as soon as it occurs. In this way the trouble can be pin-

pointed and immediate remedial action taken. In this picture the operator is facing the "mimic," which is a plan of the conveyor and floor-track system, with red-and-green lights indicating control points. To the operator's right are a telephone, a microphone connected to a public address

system and an intercommunication panel connected with twenty points throughout the building. Much of the conveyor system was designed and installed by the Materials Handling Division of Fisher and Ludlow (Australia) Pty. Ltd.



Above: A body dips into hot cleanser—the first step in the seven-stage Rotodip process.

The Rotodip

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The Rotodip—a section of the most modern painting machine in the Southern Hemisphere—cleans, rustproofs and primes the body by rotational dipping in a seven-stage process. The body revolves on a spit and moves forward through the processes in a building 400 feet long. The body dips first in a hot cleanser, then in a cold rinse, a hot rinse, a hot phosphate dip, another hot rinse and a chromic acid hot rinse. The body then enters a drying oven, is next dipped in primer and finally is stoved (or baked).



Above: "Skewered" through the centre, a body enters the Rotodip which cleans, rustproofs and primes.

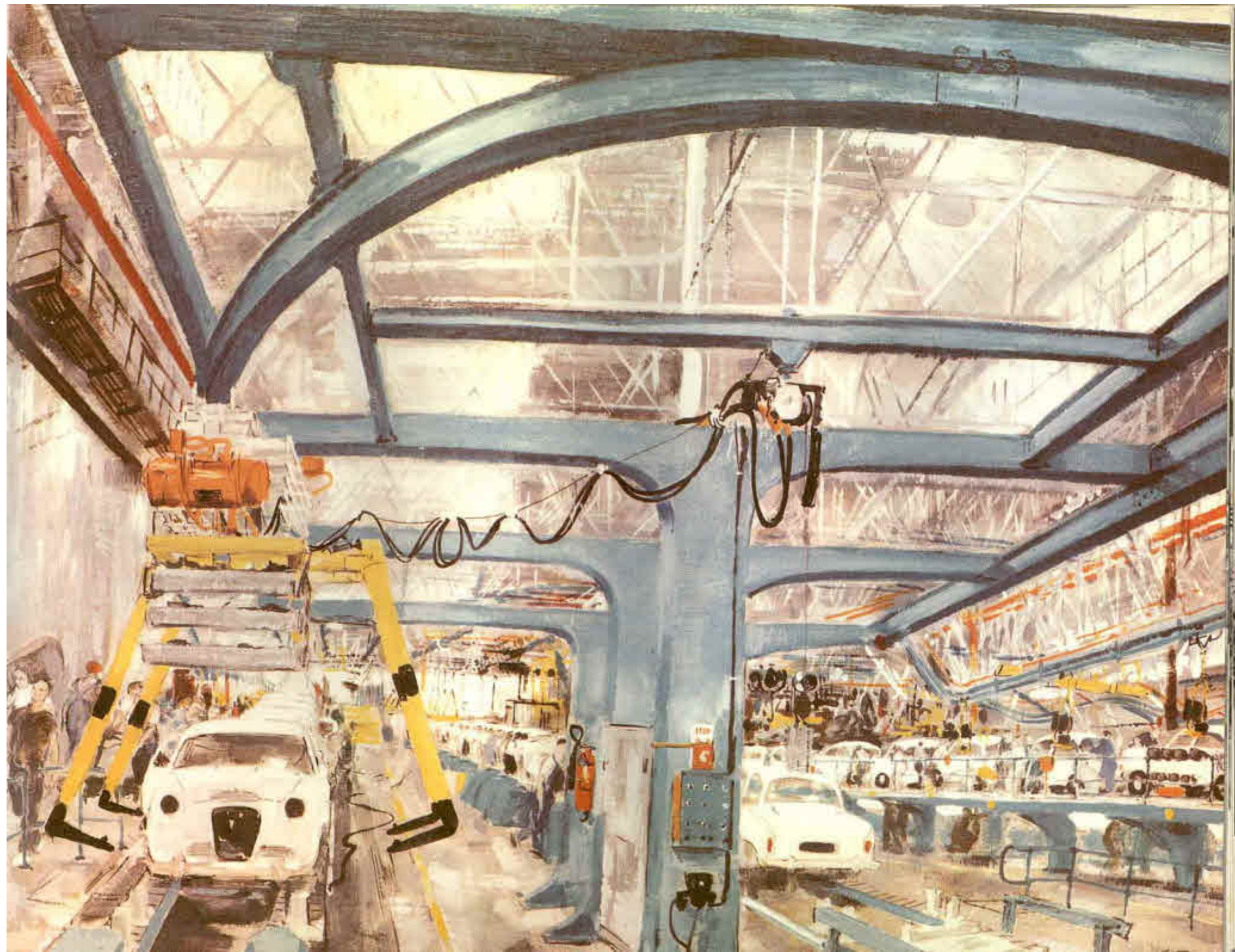
The aim of each of these processes is to keep the vehicle rustproof and blister-proof.

The Rotodip provides the base preparation for the body finish which, itself, is seven skins deep. The body finish of BMC (Australia) vehicles is achieved by hot-spray techniques which never before have been used in the nation's automotive industry.

Automatic spray machines apply a coat of hot primer-surfacer. Then the body is stoved, stopped up, rubbed down and dried in an oven at a controlled temperature. Next, it is sprayed with a coat of sealer, stoved again, dry rubbed, wiped over, and passed into an enamelling booth. Seven miles of piping feed paint of many types and colours to these booths.

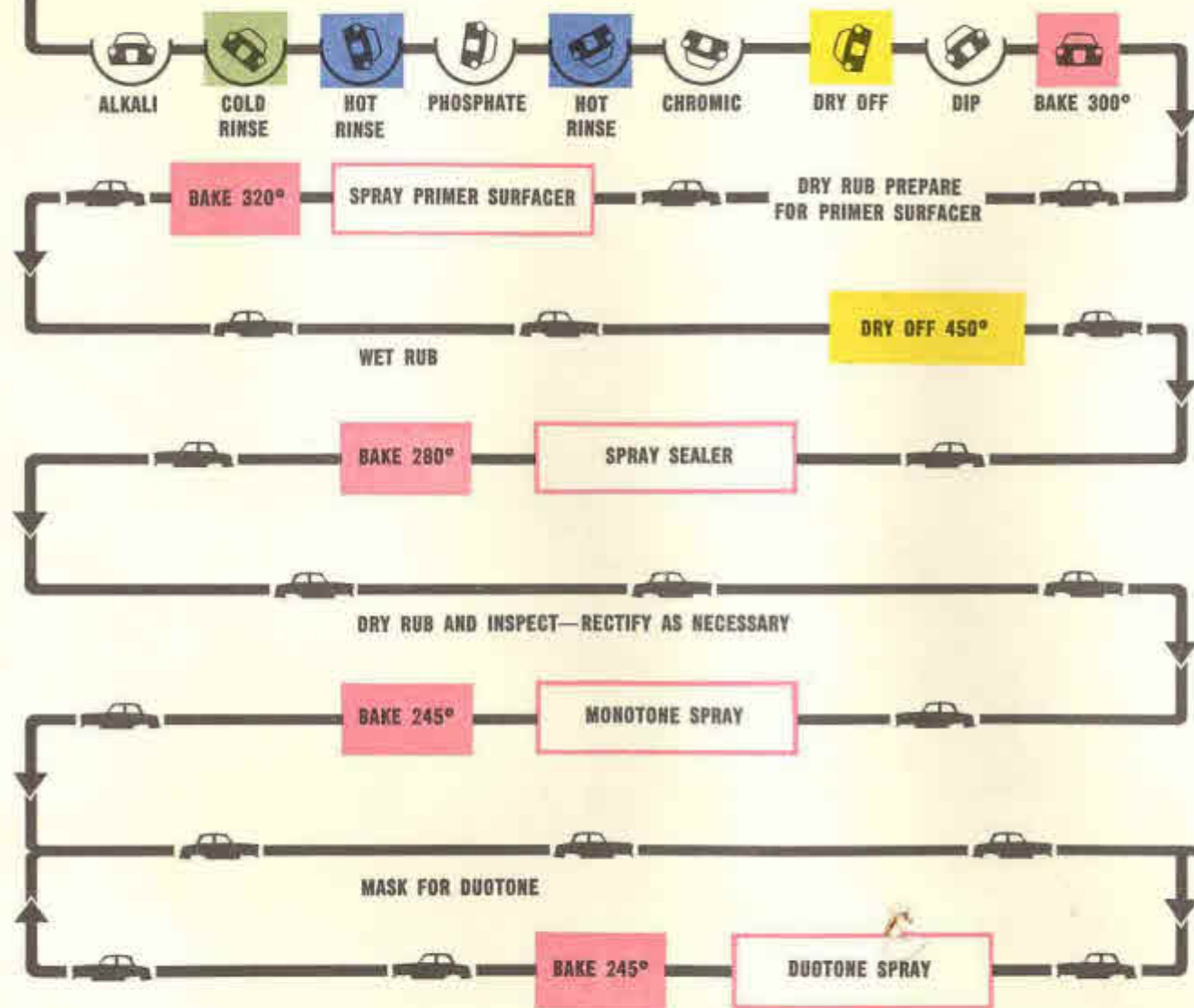
For duotone colouring the first colour is sprayed in a monotone booth. The first colour is then masked and the body enters a duotone booth for spraying with the second colour.

Opposite page: A body sling in the car assembly building transfers the vehicles at this point from the first body trim line to the second, where assembly is completed in preparation for the installation of the engine and transmission.



FROM PRESS SHOP

ROTODIP - CLEANING AND PREPARATION



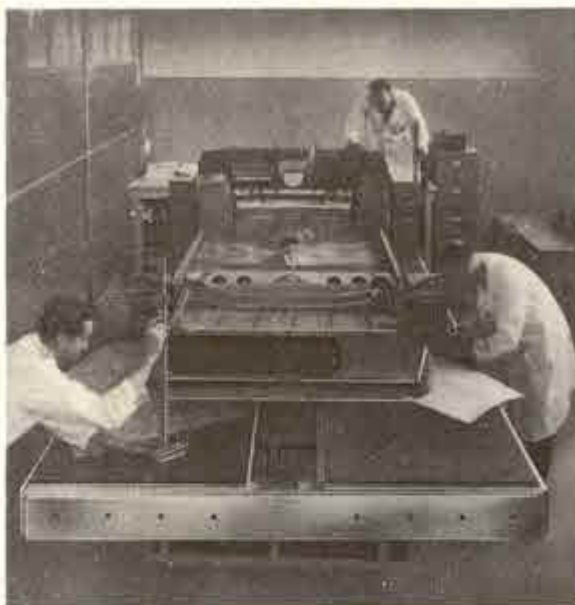
First step in the process is the cleaning and phosphating of the body by rotational dipping. The body then enters the drying oven, is dipped in primer and is baked. The aim of these processes is to keep the vehicle free from rust. The dipping operation ensures protection in areas inaccessible by normal spray painting operations. Costly proofing in the preparatory Rotodip ensures a body finish which will keep its lustre for years. An automatic spraying machine provides a coat of sealer for the body which soon is ready for the enamelling booth. The body is inspected at every stage of its passage. When finished it has seven basic "skins" — phosphate, primer, surfacer (2 coats), sealer and enamel (2 coats).

— Opposite page: Conveyor lines move bodies from Rotodip to the paint booths where the final coats are applied under a flood of shadowless lights.





Above: Tolerances as fine as $1/1000$ th part of an inch are essential to the manufacture of automotive components. The slightest variation from the standard required by BMC (Australia) can be determined and photographed by this optical measuring machine used in the laboratory.



Left: A newly pressed floor plate is tested for a long life of dependable service.

Constant Testing Protects BMC Built-in Quality

The staff of the Quality Control Dept. submit every vehicle component to extensive investigation for performance and endurance.

Using equipment ranging from electronic microscopes to metal compressing machines, they guard against any possible source of trouble.

Quality control begins with checking of the material that goes into the manufacture of all parts. It goes a step forward with the laboratory testing of what the manufacturers produce. It calls for minute checking of the completed vehicle and detailed probing of "critical" units such as steering, brakes and parts of the suspension system.

But quality control goes beyond mechanical and body parts. It extends to testing of paint under the microscope and in machines which create weather ranging from heat-waves to torrential rain. It takes in the vehicle's textiles and rubber, and the searching out of noises, dustproofing and the perfection of electrical equipment.



Above: A complete vehicle is checked for water-proofing. Simulated downpours find any weak spots in body sealing.



Above: Completed vehicles drive off the end of the production line. A final inspection, and they are ready for the showroom floor.



Far left: A BMC Dealer discusses the sales features of a new model with a prospective buyer.

Left: A salesman points out features of the car, prior to taking his prospects for a demonstration drive.

Below: Cars are displayed and demonstrated in attractive surroundings in this typical Distributor's showroom.



Selling the Vehicles

Across the face of the nation, in cities, towns and hamlets, the delivery of the Austin and Morris range of vehicles goes on every day. Hundreds of dealers, trained in the presentation of the BMC (Australia) products, demonstrate the new models in their showrooms and on the roads. Wherever the customer is in Australia he is not far from a qualified Austin or Morris salesman. This great distribution effort provides the buyer with a convenient source of sales and service. It builds the sense of security that only a widespread representation in spare parts and after-sales service can provide — and does it where the customer wants and needs it, close to his own doorstep.



Above: Another typical showroom. BMC vehicles are displayed, sold and serviced at hundreds of Dealers' and Distributors' premises throughout Australia.

Right: About 19,000 different types of parts already are stocked at Victoria Park. The total kinds of parts will grow to 50,000 by 1965 when warehouse space will be almost three times what it is to-day.

30 Tons of Parts a Day!



Above: Within eight years, 30 tons of parts and accessories will leave this Victoria Park storehouse every day for distributors, dealers and garages. This immense supply task calls for a total investment of £1,750,000 in buildings and equipment and a staff of 300.



By 1965, about 600,000 BMC vehicles will be on Australian roads and more than 50,000 different spare parts will be needed to keep them in service.

This calls for extension of the present Parts Store from 52,000 to 148,000 square feet, at a cost of £1,000,000. Retail value of parts and accessories held at Victoria Park and by distributors is now £5.6 million; in 1965 it will reach £8 million. Over the same period, Parts Department staff will more than treble to about 300.

Within two years, output of parts and accessories from Victoria Park will rise to nearly 20 tons a day; within seven years the figure will be 30 tons. (A semi-trailer 32' long and loaded to a height of 12' 6" carries only 10 tons.)

In 1965, about 70 per cent of BMC (Australia) parts and accessories will be locally made. The rest will meet the needs of imported vehicles.

Parts and accessories reach vehicle owners through a nation-wide network of 15 distributors, 1,300 dealers and 10,000 garages.



Above: By 1965, 70 per cent. of the parts in the spacious store will be Australian made. BMC (Australia) dealers stock both Austin and Nuffield parts as an added service to the motoring public.



LEFT: Service Bulletins keep BMC dealers informed.



When the Sale is Made, Service takes Over

with after-sale care of BMC vehicles. This is supplemented by a Mobile Service School which tours all States giving courses to men unable to attend Victoria Park. Attendances at these schools total about 550 a year, ranging from the apprentices of dealers to the service managers of distributors. Up and down the line of responsibility, training never ends.

To every dealer goes regular BMC (Australia) bulletins giving the results of research findings, details of new technical developments, information supplied by BMC technical experts throughout the world, detailed specifications of vehicles and instructional notes on better servicing methods.

This sharing of information and know-how is another reason for the dependability of BMC service everywhere in this continent.

RIGHT: A travelling Service School instructor delivers a refresher lecture on maintenance of gear boxes to service managers and mechanics.

Looking after vehicles long after they have been sold calls for an organisation almost as vast as the production of the vehicles themselves. For where the vehicles go, servicing equipment, spare parts and the latest technical information must go, too.

BMC (Australia) maintains a special service, quality control and scientific department which employs every test and technique known to automotive engineering.

Its field engineers travel throughout Australia to guide and advise the maintenance staffs of distributors and dealers on service problems.

Millions of pounds are invested in service buildings, servicing equipment and tools throughout the nation, ensuring rapid and efficient maintenance and repair work.

A permanent Service School at Victoria Park provides initial instruction and refresher courses for the men charged



TOP: A component being examined through an inspectoscope.

ABOVE: Mobile Service Schools tour all States.



Suppliers of smallgoods and other foodstuffs are among the nation's largest users of Austin vans.

They keep the Continent on the Move

Australia ranks fourth in the world as a motorised nation and BMC engines are serving in a thousand different ways. To the many and varied transport requirements of a growing country, BMC (Australia) contributes its long experience and extensive technical resources.



A pleasure craft powered by a BMC marine engine.

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For the economical and speedy transport of small groups of people there is the BMC Omnicoch.



ABOVE: Wherever men till the soil in Australia, BMC diesel tractors lend power to lighten the labour.



LEFT: A sunny day, water, small a canoe and a Morris car make a typical Australian week-end picture.

RIGHT: Vans produced by BMC (Australia) have proved popular in the light commercial field.

BELOW: The elegance of the city in the quiet of the countryside. A grazier hand-feeds his sheep with lucerne carried by an A95 Countryman.



An experimental MG streaks across the Bonneville Salt Flats, U.S.A., to record a new 1,500 c.c. world record of 243.11 m.p.h. It smashed the previous record by 42.11 m.p.h.



ABOVE: In ever-increasing numbers the fleet owners and hauliers of Australia are turning to BMC (Australia) products for the answer to their transport problems.

There are BMC cars wherever Australians live. BMC utilities, vans and heavy duty trucks literally deliver the goods. BMC engines are where dependability and speed are important . . . in taxis, ambulances and police vehicles.

Equally at home in either town or country are BMC buses and estate cars.

In establishing moderate cost transportation at high quality standards, BMC is performing a vital service to the public and the nation.

Below: Every day and every night, there is a semi-trailer on Australian roads carrying the Company's products. There are forty vehicles in the fleet.





Exterior of the men's amenities block.

BMC (Australia) is a Good Employer

The Corporation as an employer believes in good employer-employee relations because efficiency and happy staffs go hand in hand.

In its rapid expansion it has created jobs which draw on the skills of almost every trade and the talents of almost every profession.

The average wage of this army of people compares favourably with the best paid by Australian industry.

BMC (Australia) not only pays good wages but also gives its employees a great number of additional benefits which are not directly reflected in the size of weekly pay envelopes.

It provides spacious canteens, modern amenities blocks, a school for apprentices, staff education and training programmes, savings facilities, a house newspaper which keeps staff well informed on Company matters, first aid centres, recreation equipment and assistance to staff clubs.

Each employee is carefully shown how to do his job. Special classes add to his knowledge and skill.



Right: A section of one of the Victoria Park cafeterias. More canteens will be built as the work force grows.

The Corporation trains employees to make the most of their capabilities and rewards ability with generous promotion.

As the demand for BMC (Australia) products steadily increases, the Corporation is continuing to build for the future, ensuring stability of earnings and continuity of employment for its people.



Promotions are made largely from within the ranks.



Victoria Park has modern first-aid centres.



Individual lockers, showers and wash basins are amenities block features



Partnership with the Employee Family

In the beginning there were three: to-day, employees are numbered in thousands. Through their efforts the Corporation is enabled to contribute a share to the country's standard of prosperity.

Although young in Australia as yet, the Corporation's expansion is constant. As it grows, so will the number of employees and their opportunities. They will share in the rewards of progress and in the security of the Corporation's role as a major supplier of transportation.

At BMC (Australia) there is indeed a sense of partnership. The story of this partnership has no end.



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