

BMC (AUSTRALIA) NEWS

The British Motor Corporation (Australia) Pty Ltd.
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BMC ANNOUNCES THE AUSTIN 1800

The Austin 1800, the latest and biggest vehicle to follow the basic design concept of BMC's Mini and 1100 models, will be released throughout Australia on November 22.

A wide 5 to 6 seater saloon, the Austin 1800 has more interior space and legroom than any car of comparable size. It gives 25 to 30 mpg economy, 90 mph performance and has a host of safety features.

The car is being built by the British Motor Corporation (Australia) Pty Ltd at Victoria Park, Zetland.

Features of the Austin 1800 include:

- East-west engine with front-wheel drive.
- Hydrolastic suspension.
- The strongest body of any mass-produced motor car.
- Three-point seatbelts as standard equipment for the driver and front seat passenger
- with seatbelt mounting points at the rear.
- Camping body with fully reclining individual front seats.
- Heater demister, plus fresh air vents for driver and passenger.
- Power-assisted brakes with discs at the front and a 'G'-conscious valve to prevent rear-wheel locking.
- Radial ply tyres for better performance, safety and longer tyre life.
- Fully rustproof construction by BMC's exclusive 'rotodip' process.

The new vehicle follows the BMC Mini and Morris 1100 concept of maximum interior space for its overall size. Because the engine is placed sideways across the body and drives direct through the front wheels, extraordinary space is available in a car that is only 13 feet 8.25 inches long. Seventy percent of the overall length is devoted to passenger or luggage space.

With virtually no overhang, the new Austin is shorter overall, yet has more legroom than other popular cars in its price group. Its rear seat is 56 inches wide, accommodating 3 large adults with ease. Legroom for rear passengers is 13 inches even when the adjustable front seats are set as far back as they will go.

The Austin 1800 has met with considerable success overseas. It was introduced in Britain in October 1964 and was judged 'Car of the Year' by European motoring writers

Tests of the car under Australian conditions have been in progress for 12 months. As a result of these tests several changes have been made to the model now in production at Victoria Park.

These changes include such items as the layback seats; deeper seat padding; front door armrests; seatbelts as standard equipment; more direct steering ratio; more progressive throttle linkage operation and features designed to make the car more suitable for rough country use. These include the fitting of a sump guard, increased trim heights and improved dust and water sealing.

ENGINE PERFORMANCE

Power unit of the Austin 1800 is a 1798 cc. 4 cylinder engine that features a 5 bearing crankshaft to give smoother running and longer engine life.

The motor - basically the MG 'B' unit - develops 84 bhp.

Maximum speed is 91 mph with 0-50 mph acceleration in 11 seconds. Under favourable touring conditions, petrol consumption should approximate 30 miles per gallon.

The engine is in unit with a 4 speed all-synchromesh gearbox. A new design of engine mounting, combined with the use of control cables linking the gearbox to the floor mounted gear lever, helps to insulate the car interior from engine noise.

DRAUGHT PROOF VENTILATION

A high-input fresh air system allows a large amount of fresh air to be brought into the car with the windows closed.

Complete control over its warmth and direction of flow can be gained by joint use of the heater demister and the adjustable (direction and flow) air grilles at each side of the fascia. Because of this, quarter windows on the front doors have been eliminated. This improves forward vision. Hinged rear quarter windows provide full flow ventilation when used in conjunction with heater demister and fresh air system.

FROM THE DRIVERS SEAT

A ribbon-type speedometer with odometer, also combines water temperature and fuel gauges. Warning lights on the right of the fascia include a low oil pressure, renewal of oil filter, high beam indicator and generator charge. There is a manually operated windscreen washer.

A headlamp flasher is incorporated in the self-cancelling direction flasher switch. The turning indicator warning light automatically dims when the sidelights are on.

A dual intensity control automatically diminishes the brightness of brake lights and turning signals at night.

The full width fascia's upper surface is trimmed in black vinyl-coated fabric to eliminate glare and incorporates an upper and lower padded crash roll. A third crash roll is fitted on the full width parcel shelf below the fascia. An ashtray is fitted into the fascia top panel with two ashtrays provided for rear passengers.

Dual padded sun visors are fitted. A tinted interior rearvision mirror is used to reduce glare.

SUSPENSION AND BRAKES

The now famous Hydrolastic suspension system is used on the 1800. With rubber suspension units liquid filled and inter-connected front to rear, a remarkably level ride is obtained, coupled with superb roadholding. Continuously self-adjusting, the 9.25" diameter front disc brakes combine with equally large rear drum brakes to provide adequate stopping power for the car's 90 mph performance.

A 'G'-sensitive valve in the hydraulic system reduces the possibility of locking the rear wheels during emergency braking.

BUILT TO LAST

By employing the stiffest structure ever used for this category of family car, BMC have aimed not only at safety, but also increased longevity and freedom from distortion and rattles over long mileages.

The designers believe it is unlikely that the model concept will be obsolete even in 10 years time.

AUSTIN 1800 SPECIFICATIONS

Engine: Water cooled, overhead valve, 4 cylinder. Five bearing crankshaft, counter balanced and fitted with vibration damper. In unit with clutch, gearbox and final drive, installed transversely at front of car, sump guard. Bore 3.26 in. (80.26 mm), stroke 3.5 in. (88.9 mm), cubic capacity 109.75 cu in. (1,798 cc); compression ratio 8.2:1. Maximum power 84 bhp at 5,300 rpm. Maximum torque 99 lb ft at 2,100 rpm.

Fuel System: SU carburettor, type HS6 with paper element air cleaner and warm air intake. SU electric fuel pump, type SR Fuel filter in pump and tank. Tank capacity 10.5 gallons. Locking petrol filler cap.

Lubrication System: Full pressure feed. Sump forms oil bath for gearbox and final drive, internal gear type pump driven by camshaft, external full flow filter, gauze filter in sump with internal magnet, total oil capacity 13.75 pints plus 1.25 pints for external filter.

Ignition System: 12 volt coil and distributor with automatic and vacuum-controlled advance and retard.

Cooling System: Closed pressurised system with expansion tank, pump, fan and thermostat.

Capacity 8.5 pints, plus 1 pint for heater.

Transmission: Clutch, single dry plate 8 inch diameter, with diaphragm spring plate, hydraulic operation by pendant pedal. Four speed gearbox with synchromesh on first, second, third and top. Central gear lever rubber insulated from body floor and operating box by flexible cables. Final drive casing in unit with engine and gearbox, ratio 4.19:1 (16/67). Drive to front wheels via helical spur gears and open drive shafts with universal joints.

GEAR RATIOS GEARBOX FINAL DRIVE OVERALL ROAD SPEEDS
@ 1,000 rpm

Reverse 3.075:1 -- 12.88:1 --
First 3.292:1 -- 13.79:1 4.98 mph
Second 2.217:1 -- 9.29:1 7.39 mph

Third 1.384:1 -- 5.80:1 11.84 mph
Top 1.00:1 4.19:1(16/67) 4.19:1 16.39 mph

Steering: Rack and pinion, 3.8 turns lock to lock. 2-spoke 16.5" diameter steering wheel.

Track (front) 4 feet 8 inches. Track (rear) 4 feet 7.5 inches. Turning circle 37 feet.

Suspension: Front - Independent with upper and lower arms and locating tie-rods, swivel axles mounted on ball-joints. Hydrolastic displacers (inter-connected front to rear) mounted horizontally in front suspension tube across front of bulkhead. Rear - Independent with trailing arms incorporating Hydrolastic displacers, anti-roll bar fitted to rear suspension.

Brakes: Footbrake - hydraulically operated by pendant pedal servo-assisted. Front disc 9 9/32" diameter, self-adjusting. Rear 9 " x 1.75" drums with leading and trailing shoes. A 'G'-conscious pressure reducing valve is fitted between front and rear brakes to provide balanced braking effort.

Handbrake lever operates on rear wheels only.

Road Wheels: Pressed steel, 5 stud fixing. 175 x 13" radial ply tubeless tyres.

Electrical: High output dynamo with current and voltage control, 12 volt 50 ampere hour battery at 20 hour rate. Double-dipping sealed beam headlamps with foot operated dipswitch, headlamp flasher incorporated in direction flasher switch. Side lamps in unit with separate flasher lamps, small repeater flashers on the sides of the front guards, rear lamps in unit with separate flashers and reflectors. The stop lights automatically dim when sidelights are on. The self cancelling flasher switch lever incorporates a warning light, which is automatically dimmed when the sidelights are on. Twin lamps for rear number plate are wired so that the failure of one does not affect the other. Twin blade, self switching windscreen wipers. Dual wind-tone horn with push button in steering wheel centre. An interior light on door centre pillar with manual switch and courtesy switches on the front doors. Concealed illumination for instruments. Interior boot light.

Instruments: Ribbon-type speedometer with mileage recorder combined with water temperature and fuel gauges. Head-side lamp switch, combined ignition and starter switch, warning lights show low oil pressure, dirty oil filter, headlamp high beam and generator not charging. Manually operated windscreen washer.

Coachwork: 5 seater, 4 door 6 light saloon, of all steel unitary construction. Full width fascia incorporating instruments, switches and warning lights. The upper surface is trimmed in black vinyl coated fabric to eliminate glare and incorporates an upper and lower padded crash roll. A third crash roll is on the full width parcel shelf which is below the fascia, an ashtray is fitted in the fascia top panel and two are provided in the front seat backs for rear passengers. Single interior tinted mirror. Dual padded sun visors. Separate front seats, both adjustable for leg reach and for squab angle. Squabs can be adjusted horizontally to align with rear cushion to give sleeping position. Cushions and squabs comprise rubber diaphragms with polyether pad trimmed in leather-like expanded vinyl. Rear seat has metal seat pan with full depth polyether

pads; rear squab is full depth polyether pad, trimmed in leather-like expanded vinyl. Parcel shelf of large dimensions behind rear seat squab. Doors hung at forward edges by concealed hinges, all doors fitted with curved wind-down safety glass windows: both front doors fitted with outside private locks, rear doors have children's safety catches; large open pockets on front doors and smaller ones to rear doors. Door casings trimmed in vinyl coated fabric. Armrests on all doors. Floor completely covered in luxurious tufted pile carpet. Roof lining of moulded fibreglass faced with vinyl coated fabric. Curved, toughened plateglass for windscreen and back light, both mounted in rubber mouldings with bright plastic exterior finishers and rear opening quarter lights. Windscreen incorporates a modified safety zone. Provision for fitting a radio. Three point safety belts fitted to front seats; built in anchorage points for 3 point safety belts in rear. Lockable 17 cu. ft. boot at rear, fully lined. Lift-up spring assisted lid with concealed hinge, interior boot lamp. Spare wheel carried in wind-down tray below boot floor. Chromium plated bumpers, with over-riders front and rear. Cant-rail grab handles for rear passengers; coathook on R/H, cant-rail in rear, wheel disc; sill-tread plates. Fresh air heater demister system. THE AUSSIE 1800 (Modifications)

Additional notes by Patrick Farrell

When the Austin 1800 was first introduced to Australia it was virtually an English built and designed car. However, following initial testing, changes were made to suit the harsher Australian conditions that amounted to over 40 different modifications.

They began with the following changes:

- * The road wheels were completely new and locally made. The English specification which required wheels to withstand 30,000 cycles on the destruction machine was not considered strong enough for our roads. The Australian wheels were built to withstand 100,000 cycles.
- * A new type progressive speed-up throttle opening was introduced, operated by a graduated cam; early pedal travel is long but it shortens progressively as speed rises. With the new throttle goes a non-jamming plastic-lined acceleration cable.
- * A similar type of non-jamming cable was soon afterwards applied to the choke.
- * The engine mountings were made here and strengthened. The British method of rubber-to-metal bonding was considered too weak for the bad roads in Australia.
- * Exhaust pipe mountings were strengthened - as were joints between the pipe and muffler.
- * Gearbox sealing was improved to stop persistent oil leaks around the push-pull cables leading from the remote control lever into the gearbox.
- * A new type steering rack was fitted giving a more direct ratio. The British 1800 was 4.5 turns from lock to lock. BMC Australia sensibly reduced this to approx. 3.5 turns.

* The handbrake lever was lengthened because it was found that a driver wearing a three-point safety belt could not reach it. Its general design was improved and a new type non-jamming cable was used. The result was an excellent positive reaction.

* Radial ply tyres were fitted as standard.

* Door handle and door lock mechanisms were completely redesigned and made here. The original Wilmot Breedon hardware proved totally unsuitable for local conditions, the locks tended to work loose or jam with dust, and striker plates would not keep register.

* Dust sealing was improved throughout. Considerable redesigning of the boot lid proved necessary.

* Window glass in Australia was cut to three times closer tolerances than the British glass. This made them slide better and improved waterproofing and dust proofing.

* The seats have been deepened and strengthened, particularly the front seat cushions which have been given an extra inch of padding because the testers found their butts were hitting the framework in the original setup.

* Full layback front seats, giving a camper-sleeping version (known in Australia as a camping body), were fitted as standard. The straight backs are also adjustable to in-between angles.

* Three-point safety belts for driver and front passenger were fitted as standard, making the 1800 the first volume production car in Australia with this important provision. Anchorage points were provided for optional seat belts to the rear seats.

* Trim and upholstery were redesigned throughout, to suit our climate and also raise the Australian content.

* Soundproofing was improved, particularly at the engine bulkhead.

* The full width parcel shelf under the dash was covered with anti-skid material (to prevent articles sliding around), a central divider was also added.

* Twin padded sun visors were fitted as standard. The English model had only a driver's visor. Our visors also swivel sideways, to prevent side glare.

* The excellent heater-demister was standard.

* Press button type screen washers were standard.

* The headlining is one piece and thickly padded with fibreglass for extra insulation.

* Electric fuel pump was moved to the boot for better protection on Australian roads.

* Higher grade of carpeting.

- * Armrests on the front doors (not fitted to the English model).
- * Sump-guard fitted as standard.
- * Height addition to the Hydrolastic suspension.
- * The speedometer cable was lengthened for easier travel.
- * A recessed drain plug was fitted into the fuel tank.
- * A hole was made in the spare wheel carrier, enabling easy access to the spare tyre valve when checking inflation pressure.
- * A better and quieter brake booster was fitted.
- * A wood strip (imitation) was added to the fascia.

After the first cars had been running for some months in Australia, it was found necessary to go a lot further than this and the result produced a far better vehicle than it's English counterpart.

The final changes were:

- * The jack was redesigned as the English one was considered too weak.
- * An altered clutch design.
- * Better camshaft with greater engine torque characteristics.
- * New oil control rings.
- * Internal bonnet release lever.
- * Softer rubber universal joints for added quiet.
- * Galvabond exhaust system to resist corrosion.

Later, in the MkII, a more powerful wiper motor was fitted. Yet another sump-guard was added.

PBR brakes with a dual system was fitted - regarded as superior to the Girling brake system.