C A M S

5TH CATEGORY - HISTORIC RACING

GROUP Na

APPROVED VEHICLE SPECIFICATION

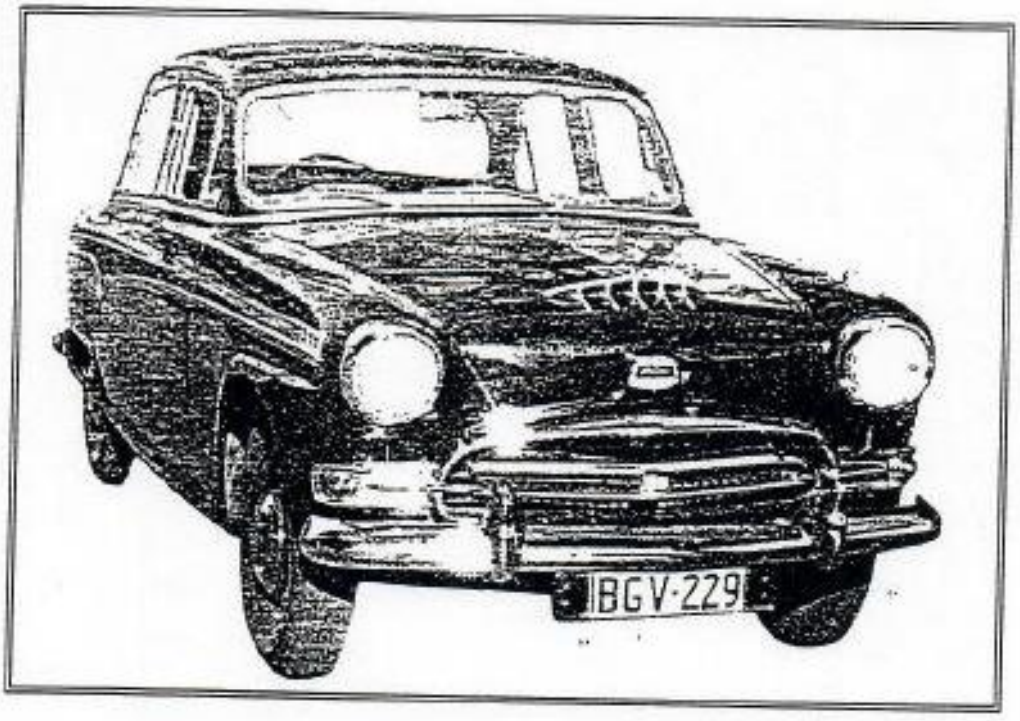
This form details the approved specification of individual vehicle models in the Na production saloon car group. To be issued with an Historic log book, cars need to comply with these specifications. the physical appearance sl in the illustrations and the general historic rules as detailed in the current CAMS manual.

Make of car: AUSTIN **Model:** A90, A95, A105

Period of original manufacture: A90 1954-56, A95 1956-59, A105 1956-60

CAMS Historic group: Na

Date of issue of this Document: 2/05/95



SECTION 1 - CHASSIS

1.1 CHASSIS FRAME

Description :	UNITARY CONSTRUCTION		
Manufacturer :	AUSTIN	Period of manufacture:	1954-60
Chassis nos. from :		to:	
Chassis no. location :	FIREWALL		
Material :	MILD STEEL		
COMMENTS :	NIL		

1.2 FRONT SUSPENSION

Description :	IFS TWIN WISHBONES		
Spring medium :	COIL		
Damper type :	GIRLING LEVER	Adjustable :	N/A
Anti-sway bar :	NO	Adjustable :	N/A
Suspension adjustable	NO	Method :	N/A
COMMENTS :	ANTI SWAY BAR ALLOWED RIDE HEIGHT AND SPRING RATE FREE		

1.3 REAR SUSPENSION

Description :	LIVE AXLE		
Spring medium :	SEMI ELLIPTIC LEAF		
Damper type :	GIRLING LEVER	Adjustable :	NO
Anti-sway bar :	YES	Adjustable :	NO
Suspension adjustable	NO	Method :	N/A
COMMENTS :	RIDE HEIGHT AND SPRING RATE FREE		

1.4 STEERING

Type :	WORM & PEG	Make :	BMC
COMMENTS :	NIL		

1.5 BRAKES

	Front	Rear
Type :	DRUM	DRUM
Dimensions :	11"	11"
Material of drum :	CAST IRON	CAST IRON
No. cyls per wheel :	2 (2LS)	1(SINGLE LS)
Actuation :	HYDRAULIC	HYDRAULIC
Caliper; Make, Material, Type :	N/A	N/A

Master cyl make :	GIRLING	Type :	SINGLE
Adjustable bias :	NO		
Servo fitted :	NO		
COMMENTS :	TANDEM M/CYL ALLOWED SERVO ALLOWED		

SECTION 2 - ENGINE

2.1 ENGINE

Make :	AUSTIN				
Model :	A90, A95, A105				
No. cylinders :	6		Configuration :	IN LINE	FOUR stroke.
Cylinder block , materia	CAST IRON				
Bore ; original :	79.4	mm	Max. allowed :	80.9	mm
Stroke ; original :	88.9	mm	Max allowed :	88.9	mm
Capacity ; origiral ;	2639	CC	Max. allowed :	2743	CC
Cooling method :	WATER				
Identifying marks :					
COMMENTS :	NIL				

2.2 CYLINDER HEAD

Make :	AUSTIN					
No. valves per cyl :	2		Inlet :	1	Exhaust	1
No of ports, total :	12		Inlet :	6	Exhaust	6
No camshafts :	1	Location :		BLOCK	Drive :	CHAIN
Valve actuation :	OHV					
Spark plugs per cyl. :	1					
Identifying marks :						
COMMENTS :	NIL					

2.3 LUBRICATION

Method :	WET SUMP		
Oil cooler standard :	NO	Location :	N/A
COMMENTS :	OIL COOLER ALLOWED		

2.4 IGNITION SYSTEM

Type :	DISTRIBUTER AND COIL	Make :	LUCAS
COMMENTS :	NIL		

2.5 FUEL SYSTEM

Carburettor ; Make :	A90, A95 : ZENITH	Model :		No. :	1
Size :	A105 : SU	Model :	H4	No. :	2
Fuel injection ; Make :	NO	Type :	N/A		
Supercharged :	NO	Type :	N/A		
Make :	N/A	Drive :	N/A		
COMMENTS :	3 X SU CARBURETTORS ALLOWED THROAT SIZE UNRESTRICTED				

SECTION 3 - TRANSMISSION

3.1 CLUTCH

Make :	BORG AND BECK	Type :	A6-G	Dia. :	9"
No. of plates :	1				
Actuation :	HYDRAULIC				
COMMENTS :	NIL				

3.2 TRANSMISSION

Make :	AUSTIN	Model :	BMC C SERIES
Case material :	C.IRON		
No. forward speeds :	4	Gearchange Type :	COLUMN CHANGE
Gearbox location :	BEHIND ENGINE		
Identifying marks :			
COMMENTS :	RATIOS FREE & OVERDRIVE ALLOWED		

3.3 FINAL DRIVE

Make :	AUSTIN	Model :	BMC C SERIES
Wheel drive method :	REAR		
Ratio :			
Differential :	FREE	Model :	BMC C SERIES
COMMENTS :	RATIOS FREE		

3.4 TRANSMISSION SHAFTS (EXPOSED)

No.	1	Location :	TAILSHAFT
Description :	TUBULAR		
COMMENTS	NIL		

3.5 WHEELS AND TYRES

Wheel , type :	DISC	Material :	STEEL
Fixture method :	BOLT ON	No. studs :	5

		Front	Rear
Wheel dia. & rim width ;	original :	15 x 4.5"	15 x 4.5"
	Allowed :	15 x 5"	15 x 5"
Tyre section ;	original :	640 x 15	640 x 15
	Allowed :	205 x 15	205 x 15

Aspect ratio, minimum : 65%

COMMENTS : NIL

SECTION 4 - GENERAL

4.1 FUEL SYSTEM

Tank location :	FRONT OF BOOT	Capacity, litres :	66
Fuel pump; type :	MECHANICAL	Make :	AC
COMMENTS :	NIL		

4.2 ELECTRICAL SYSTEM

Voltage :	12
Battery; location :	ENGINE BAY
COMMENTS :	NIL

4.3 BODYWORK

Type :	SALOON	Material :	STEEL
No. of seats :	5	No. doors :	4
COMMENTS :	NIL		

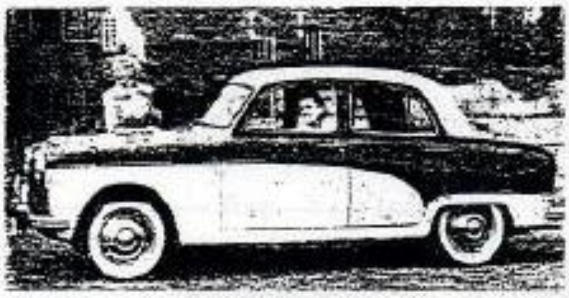
4.4 DIMENSIONS

Track; front :	1308	mm	Track, rear :	1301	mm
Wheelbase;	2665	mm	Overall length :	4572	mm
Dry weight :	1395	kg			
COMMENTS :	NIL				

4.5 SAFETY EQUIPMENT

Fire Extinguisher :	REQUIRED
Seat belt :	REQUIRED
Roll bar :	REQUIRED
Electrical cut off switch :	RECOMMENDED
Safety fuel tank :	RECOMMENDED
COMMENTS :	NIL

AUSTIN'S NEW, FAST A105



AUSTIN have joined the growing list of British carmakers who won't wait for London's October motor show to launch a new model.

It's true that, in their case, the car is not an entirely new effort but a high-performance luxury version of the existing A90 Westminster.

Austin sprang the news in May, but warned home buyers that most of the production would be earmarked for export for the first few months.

The A105 can hit at least 95 m.p.h. as against the top speed of 89 Modern Motor's tester obtained from the A90. Mechanical changes to the six-cylinder o.h.v. engine layout include:

- Compression ratio of 8.25 to 1 (instead of 7.3 to 1), obtained by using pistons with flat tops instead of the standard concave crowns;
- Twin SU H4 carburettors feeding into a circular induction gallery cast integral with the head;
- Modified exhaust system with a special muffler designed to reduce back-pressure;
- Dual valve springs to prevent valve bounce.

These changes have boosted the engine's output to 102 b.h.p. at 4600 r.p.m., instead of 85 at 4000. To allow full use of the extra horses without tiring the engine on long runs, a Borg-Warner overdrive unit is fitted as standard, with a rear-axle ratio of 4.1 to 1 (the A90's ratio is 3.91 to 1). Gear ratios are: 13.57, 9.10, 5.89 (o.d. third 4.12) and 4.10 to 1 (o.d. top 2.87).

Roadholding has been improved to match the extra performance by reducing the overall height of the car slightly more than one inch. This was done by fitting shorter coil springs to the front suspension and altering the camber of the semi-elliptic rear springs.

Standard equipment includes twin fog lamps, wing mirrors, hooded headlights, bumper-bar overriders, vacuum-operated screen-washers and a heater. The wheels have stainless-steel discs slotted to assist brake cooling and are shod with whitewall tubeless tyres. Finish offers a variety of two-tones.

Inside, front-seat width has been increased by two inches and there's an inch more leg-room for rear-seat passengers. The back of the split front seat houses two ashtrays. The dash is padded along the top and tiny indicator lights identify the main control knobs at night. Upholstery is leather over foam latex.

The A105 owes many of its features to lessons learnt during races and rallies; its release came at a time when motoring fans were talking about the performance of a hot A90 in the hands of Ken Wharton, who got a second place against strong opposition in a closed-car race at Silverstone. The car's home price suggests it will cost about £150 more than the A90 in Australia. • • •

windows, when they acted as quite powerful extractors.

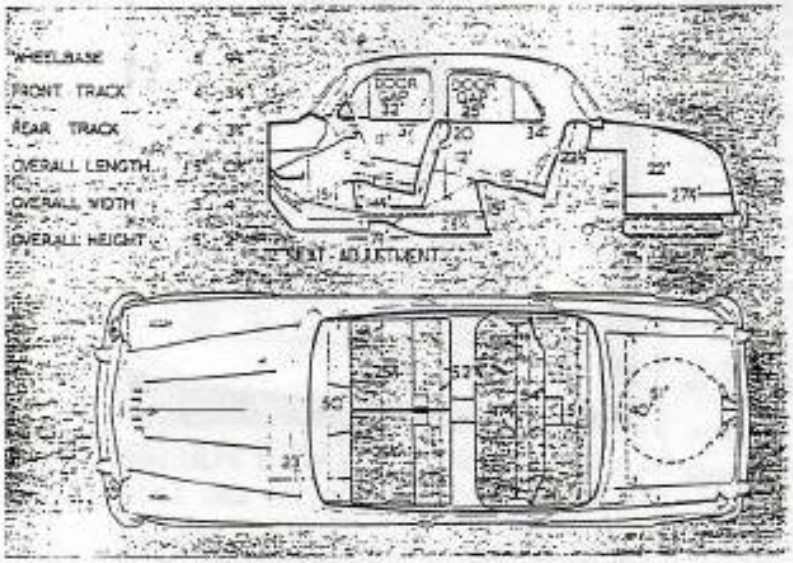
For a car in this price category the rear compartment is very well appointed. The seat is comfortable, with room for three if the central folding armrest is raised. The cushion has a well-padded roll on its forward edge, and the back rest, placed at a comfortable angle, gives good support. A passenger 6ft 2in in height found that he was seated comfortably, with adequate leg room. The whole of the floor is covered in thick carpet; the door trim is neatly carried out. There is a wide shelf behind the seat. The rear door locks have additional safety catches to prevent them being opened by small children. An ashtray is placed on the back of each front seat, but of such shape as to be of little use. A single ashtray is fitted centrally in the facia panel.

A feature of the A.105 is the excellent luggage locker. The lid opens wide and is self-supporting; there is a flat floor, and the edge is so shallow that it is not difficult to lift luggage over. The petrol tank is separated from the locker by a hardboard panel, and above the tank is a shelf to which is clipped the tool kit.

Beneath the bonnet the auxiliaries of the engine are reasonably accessible, except that the oil level dipstick is rather awkward to reach. According to the instruction book there are 19 lubrication points requiring attention every 1,000 miles.

To sum up, the Austin A.105 is a very likeable, sturdy car. It has a good carrying capacity and, at the same time, is pleasingly compact in difficult traffic conditions where a large car can be an embarrassment. It covers long distances in an easy way, and the automatic transmission relieves the driver of a considerable amount of work. In addition to its merits in the road conditions of its native country, it should appeal to the overseas buyer.

AUSTIN A.105 (AUTOMATIC)



Measurements in these ¼in to 1ft scale body diagrams are taken with the driving seat in the central position of fore and aft adjustment and with the seat cushions uncompressed

PERFORMANCE

ACCELERATION: from constant speeds.
Gear Ratios: Top (direct) 3.91 to 1; Intermediate 10.1 to 5.63; Low 19.4 to 9.03; Reverse 16.9 to 7.85.

Speed Range:

M.P.H.	Drive Range	Low Range
10—30	4.9	4.9
20—40	5.5	5.5
30—50	7.9	
40—60	9.5	
50—70	12.4	
60—80	17.1	

From rest through gears to:

M.P.H.	sec.
30	4.1
50	13.5
60	18.3
70	26.1
80	36.5

Standing quarter mile, 22.0 sec.

SPEEDS ON GEARS:

Gear		M.P.H. (normal and max.)	K.P.H. (normal and max.)
Top	(mean)	94.5	151.4
	(best)	96.0	154.5
Intermediate		40—57	64—92
Low		20—45	32—72

TRACTIVE RESISTANCE: 40 lb per ton at 10 M.P.H.

TRACTIVE EFFORT:

	Pull (lb per ton)	Equivalent Gradient
Top	197.5	1 in 11.3
Intermediate	387.5	1 in 5.5

BRAKES:

Efficiency	Pedal Pressure (lb)
21.0 per cent	25
43.5 per cent	50
60.5 per cent	75
72.7 per cent	100

FUEL CONSUMPTION:
20.8 m.p.g. overall for 620 miles (13.6 litres per 100 km).
Approximate normal range 17.5-27.5 m.p.g. (16.1-10.3 litres per 100 km).
Fuel, Premium grade.

WEATHER: Dry, sunny, slight breeze.
Air temperature 70 deg F.
Acceleration figures are the means of several runs in opposite directions.
Tractive effort and resistance obtained by Tapley meter.
Model described in *The Autocar* of 12 October, 1956.

SPEEDOMETER CORRECTION: M.P.H.

Car speedometer:	10	20	30	40	50	60	70	80	90
True speed:	14	21	29	38	47	57	67	77	87

DATA

PRICE (basic), with de luxe saloon body, £871.
British purchase tax £436.
Total (in Great Britain), £1,307.
Extras: Radio £39 7s 6d.

ENGINE: Capacity: 2,639 c.c. (161 cu in).
Number of cylinders: 6.
Bore and stroke: 79.4 × 89 mm (3.125 × 3.5in).
Valve gear: Overhead, pushrods and rocker.
Compression ratio: 8.25 to 1.
B.H.P.: 102 at 4,600 r.p.m. (B.H.P. per ton laden 66.8).
Torque: 142 lb ft at 2,400 r.p.m.
M.P.H. per 1,000 r.p.m. on top gear, 19.95.

WEIGHT (with 5 gals fuel): 27¼ cwt (3,073 lb).
Weight distribution (per cent): F, 56; R, 44.
Laden as tested: 30¼ cwt (3,423 lb).
Lb per c.c. (laden): 1.3.

BRAKES: Type: F, two-leading shoe; R, leading and trailing.
Method of operation: F, hydraulic; R, hydraulic.
Drum dimensions: F and R, 11in diameter; 2¼in wide.
Lining area: F, 95 sq in. R, 95 sq in (125 sq in per ton laden).

TYRES: 6.40—15in.
Pressures (lb per sq in): F, 24; R, 15 (normal).

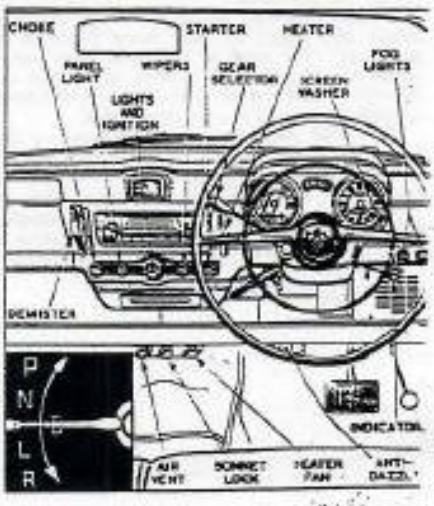
TANK CAPACITY: 14 Imperial gallons.
Oil sump: 12½ pints.
Cooling system: 25 pints.

TURNING CIRCLE: 40ft (L and R).
Steering wheel turns (lock to lock): 3¼.

DIMENSIONS: Wheelbase: 8ft 9¾in.
Track: F, 4ft 3¼in; R, 4ft 3¼in.
Length (overall): 15ft 0¾in.
Width: 5ft 3in.
Height: 5ft 4in.
Ground clearance: 7¼in.

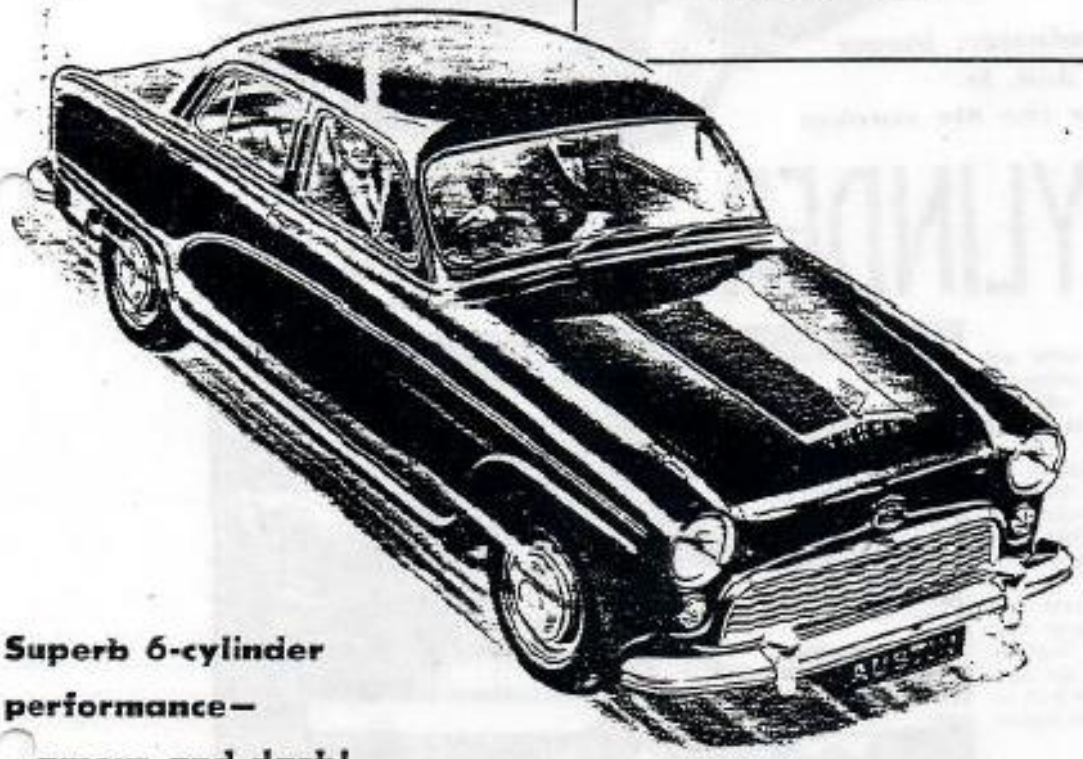
ELECTRICAL SYSTEM: 12-volt; 51 ampere-hour battery.
Head lights: Double dip; 42-36 watt bulbs.

SUSPENSION: Front, independent, coil springs and wishbones. Rear, half-elliptic leaf springs. Anti-roll bar on rear axle.



Experience something new—today!

AUSTIN
WESTMINSTER
A90 'six'



Superb 6-cylinder performance—

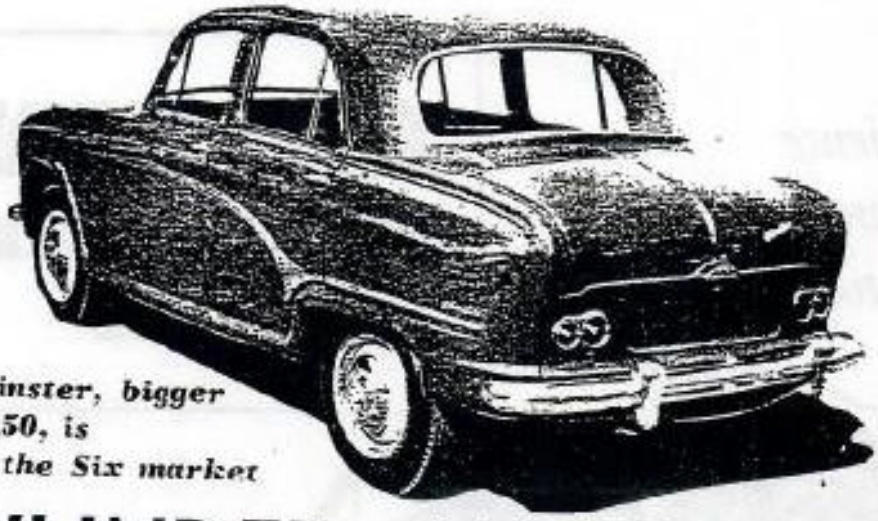
glamour and dash!

Slip behind the wheel of a Westminster, open the throttle and see what this A90 can do! Its new 6-cylinder engine delivers all the power you can use — and that little bit extra when you really want it. It can take you from 0 to 70 m.p.h. in 26 seconds flat — and then up to 90 and beyond. Gears are matched for this great performance. In third you can get up to 70 m.p.h. That makes overtaking easy. The gear-change system gives swift and easy changes, but so flexible is the engine that, in top, you can dawdle smoothly at only 10 m.p.h. Brakes are super-safe with over 188 square inches of braking surface. This is a big, fast, stylish car with fittings, lines and comfort that are in the luxury class. Imported de-luxe model, with heater, £1145 plus tax. *OVERDRIVE is available as an optional extra.*

Try something thrilling — today! See your Austin Distributor or Dealer for a demonstration drive.

THE AUSTIN MOTOR COMPANY (AUSTRALIA) PTY. LTD., A UNIT OF THE BRITISH MOTOR CORPORATION (AUSTRALIA) PTY. LTD.

AC.240.FP



FRONT or REAR, the basic design is like that of the A50, but the whole car is bigger all round. Much longer bonnet, chrome side strips are main distinguishing marks.

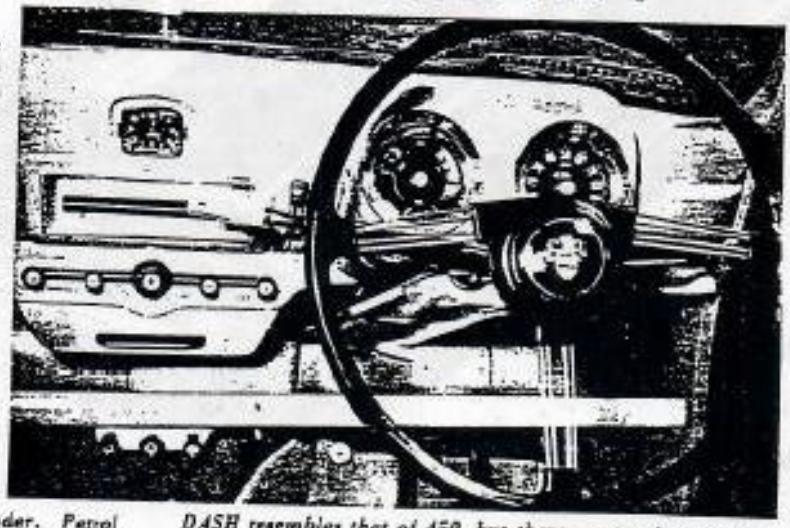
The A90 Westminster, bigger brother to the A50, is Austin's bid for the Six market

SIX-CYLINDER AUSTIN

The wide boot has 14 cubic feet of luggage space and is unencumbered by the spare tyre, which is carried in a tray under the rear of the car.

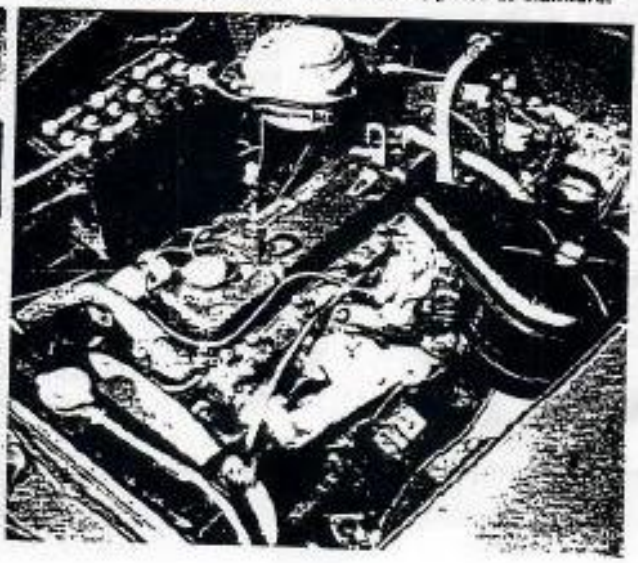
The petrol filler pipe has an external cap, unlike that of the A50. Those who deplore the absence of a crankhandle on many modern cars will be glad to find one stowed at the side of the boot.

A wide, curved windscreen and large rear window give good visibility all round. General finish is excellent, both inside and out, and the car looks well worth its price in every way. Pity about those import restrictions.



DASH resembles that of A50, but there are two instrument groups instead of one. Engine compartment (below) is roomy, houses heater and screen-washer, fitted as standard.

BOOT is wide but short, with spare under. Petrol tank is behind the rear seat; filler pipe has its own locking external lid. And look—a crankhandle!



SEEN for the first time in Australia at Sydney's Royal Easter Show, the Austin A90 Westminster saloon is a handsome big brother to the popular A30 Cambridge.

It is bigger all round than the A50—six cylinders instead of four, 8½ inches longer overall, 2¾ inches higher, 6 cwt. heavier, and about 4½ inches longer in the wheelbase.

The engine is the car's newsiest feature, being the first medium-priced Austin Six since 1938. Its coming was first rumored more than a year ago.

Although not quite in the luxury class, the five/six-seater A90 offers many refinements that should make it attractive to both the family man and the business user. Its design is very similar to that of the A50, but the bigger Westminster has a longer, sleeker look.

The car is keenly priced at £1317, including tax, and should find plenty of buyers when it reaches the Australian market. But the distributors cannot say when it will be available here, because of recently imposed import restrictions.

The only Westminster now in the country was brought out for exhibition only, and is not yet sufficiently run-in for road-testing.

Engine, Transmission

The engine is the same as that of the new Wolseley 6/90 and is fully described on page 44, in the review of that car. But the A90 has only one carburettor—a Zenith—and develops 85 b.h.p. at 4000 r.p.m., 10 b.p. less than the Wolseley with its twin carburettors.

The four-speed gearbox has a form of baulk ring synchromesh known as inertia lock, which prevents gear engagement until synchronisation has been achieved.

The hydraulically operated clutch is Borg and Beck single dry-plate, of 9in. diameter. Hypoid bevel drive takes the power to the rear end through a gearing of 3.91 to 1.

The Undercart

Front suspension is independent, by coil springs controlled by double-acting hydraulic shock absorbers. At rear, long semi-elliptic reverse-camber springs, underslung and mounted on rubber bushes, are also controlled by double-acting hydraulic shockers, interconnected by a stabiliser bar.

The slotted, pressed-steel disc wheels take 6.40 x 15in. cushion tyres. Four-wheel Girling hydraulic brakes are fitted, with two leading shoes in front. The handbrake acts mechanically, on rear wheels only, and is operated by a pistol-grip control at the steering column.

Steering is high-efficiency cam type, and the car has a turning circle of 36ft.

Body, Interior

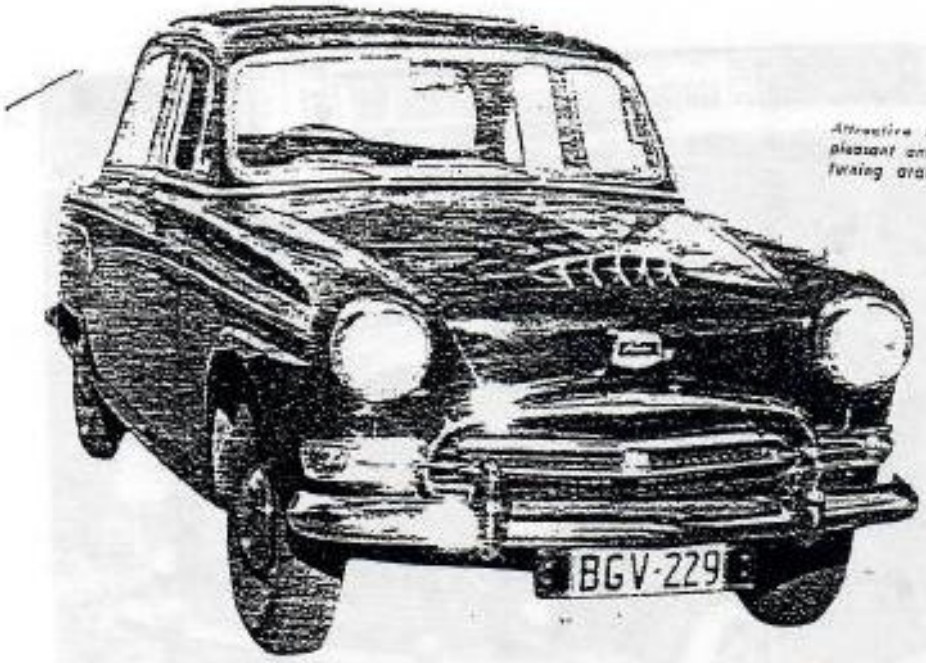
The all-steel body is of unitary construction, with fully recessed skin.

Front seat is of the split bench type, with both sides individually adjustable.

Dash layout is similar to that of the A50, with all instruments grouped in front of driver. These include speedo and trip recorder, a "no charge" warning light, and a headlamp beam indicator, plus fuel, oil pressure and water temperature gauges. There is a glovebox on the passenger's side and a full-width parcel shelf under the dash.

The flashing-light direction indicators are operated by a self-cancelling finger lever on the steering column. Twin horns are standard equipment.

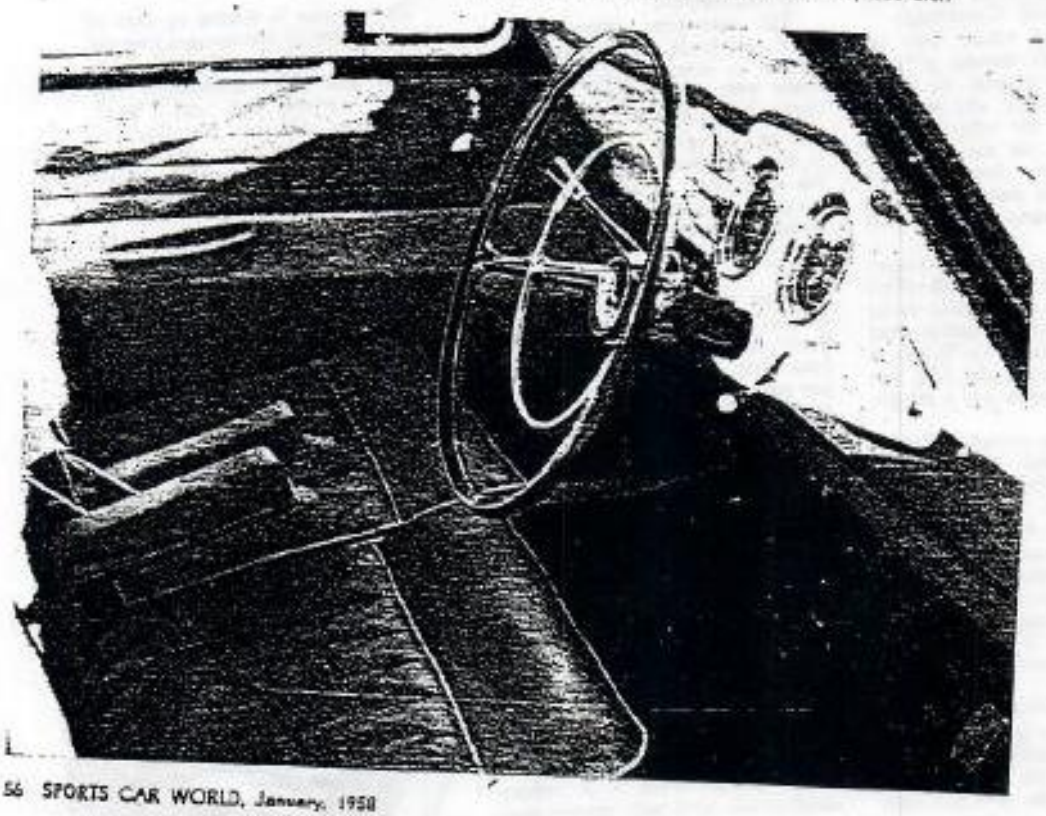
***ARMRESTS** provided on all the seats give extra comfort, folding back into squabs when not needed.*



Attractive in line, the Austin A/95 is a pleasant and fast car to drive, besides returning around 22 m.p.g. touring rapidly.

AUSTIN'S A/95 HAS RACING PROMISE

Operator's compartment is neat and functional. Note dished wheel and trafficator arm below speedo dial.



Showing possibilities as a contestant in sedan car racing,

Austin's medium sized vehicle has lots of potential.

By IAN FRASER

APART from the Healey, Austins have never made a car which fits comfortably into the classification of "fast touring with possibly better things to come". The A/95, however, breaks with tradition and is definitely a high performance car reflecting the generally high standard which can now be found in modestly priced, mass production machines.

But more important, it appears to be a car with great possibilities for sedan car racing. Several are racing in England, and there are reports of considerable success.

The motor, the B.M.C. C-type, is virtually a single carburettor version of the Healey power plant, turning out 92 b.h.p. instead of 102.

Technically this unit is interesting because it has a 12 port cylinder head, and no doubt some clever enthusiast could quickly devise a method of applying triple carburettors and a six branch exhaust system.

Those who play at guessing games declare that 140 b.h.p. would be quickly obtainable, while 160 b.h.p. should present no great difficulties. Naturally, this sort of output in a car weighing about 25 hundredweight puts it in a race winning position.

The gear ratios are reasonably close, and the box itself is provided with a powerful synchromesh which permits very fast changes. In common with most steering column gear change levers, the one on 95 is best described as fair, rather than good. Main complaint is that it lacks feel.

With 30 m.p.h. available in first cog, 50 in second, and 75 in third the gearbox is obviously there to be used if maximum performance is desired.

The instruments, arranged in two dials, are directly in front of the driver under a small cowl which effectively prevents reflections on the curved windscreen.

Steering, by cam and roller, is light and accurate, and the dished wheel requires slightly more than three turns lock to lock.

Seating arrangements are good. The front seat is a divided bench and each half has a folding armrest in the centre, besides the ones supplied on each door. Six people can be accommodated.

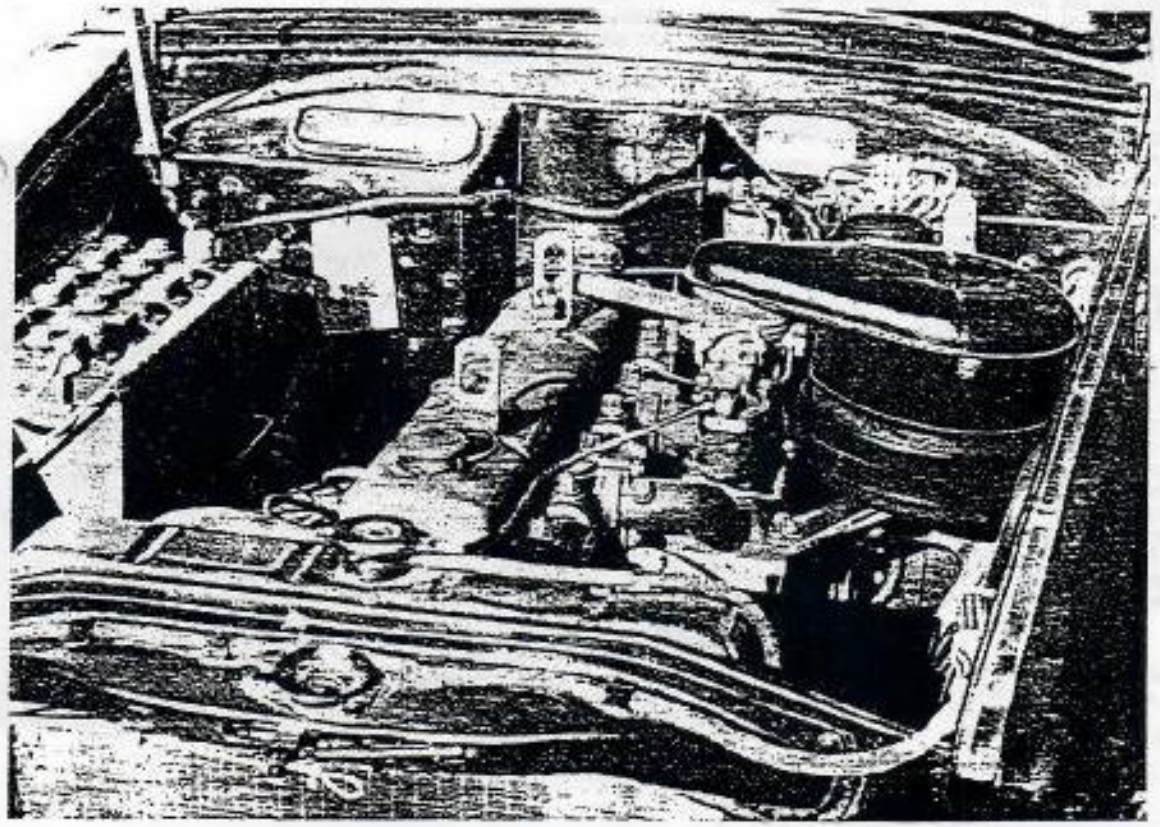
On the road the 95 returns a gratifying performance when the driver wishes to hasten along a little. The brakes are good and require only gentle pedal pressure. If pounded heavily, the drums will overheat and fade, but recovery is quick, thanks to the drilled disc wheels which keep air circulating around the drums.

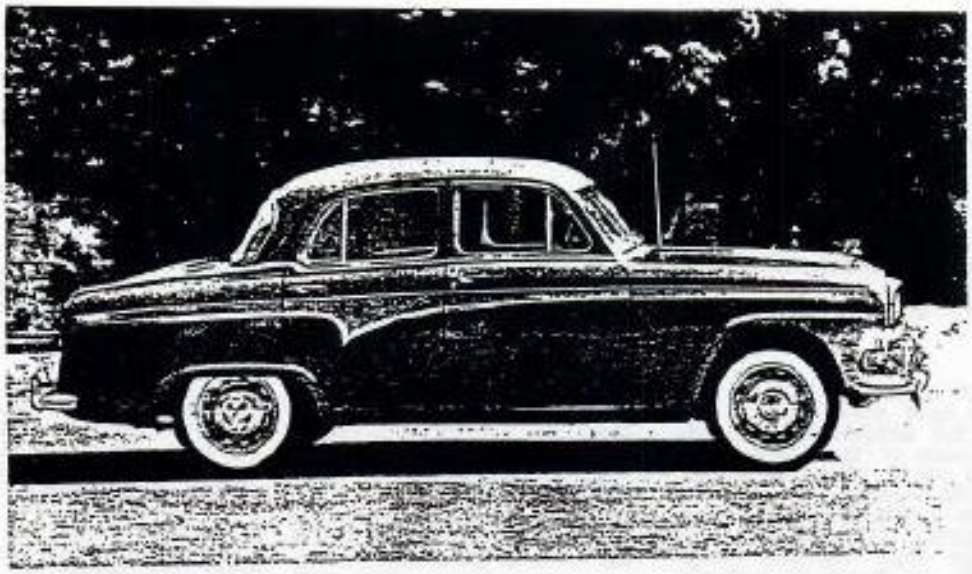
Fast corners can be taken with full confidence. Although there is some understeer, it does not reach the proportions found in many modern cars.

Through tight bends, taken in a low gear, there seems to be slight wheel lifting at the rear, with some excess wheel spin, but it is far from making the car feel unstable.

Flat out the 95 will do a genuine 93 m.p.h., and will accelerate to 50 m.p.h in 11.4 seconds and to 60 m.p.h. in 15.1 seconds.

Engine compartment of the Austin is neatly laid out while the power unit lends itself to considerable hotting up by the addition of extra carburettors and an exhaust system.





The A.105 has plated mouldings which help to brighten as well as add length to its appearance. Each door has an opening quarter vent

Autocar ROAD TESTS 1649

Austin A.105

AUTOMATIC TRANSMISSION

WITH the exception of the larger and more costly Princess saloons and limousines, the A.105 saloon with Borg Warner automatic transmission is the most lavishly furnished model of the Austin range. It is a faster, de luxe version of the A.95 and, apart from the automatic transmission, the radio is the only item officially listed as an optional extra.

Twin S.U. carburettors are fitted to the 2.6-litre engine, and the standard transmission is by a four-speed synchromesh gear box, to which is coupled a Borg Warner overdrive. The automatic transmission version was the subject of this test.

Since a Road Test of the previous A.105 was published on 22 June 1956, there have been improvements in appearance and load-carrying capacity. Though engine power is unchanged, the car can cover over 27 miles on one gallon of petrol, it will reach 70 m.p.h. in just over 26sec and it has a maximum speed of 96 m.p.h. In addition, the total price, in the U.K., of the model tested is £1,329 12s, which represents good, competitive value.

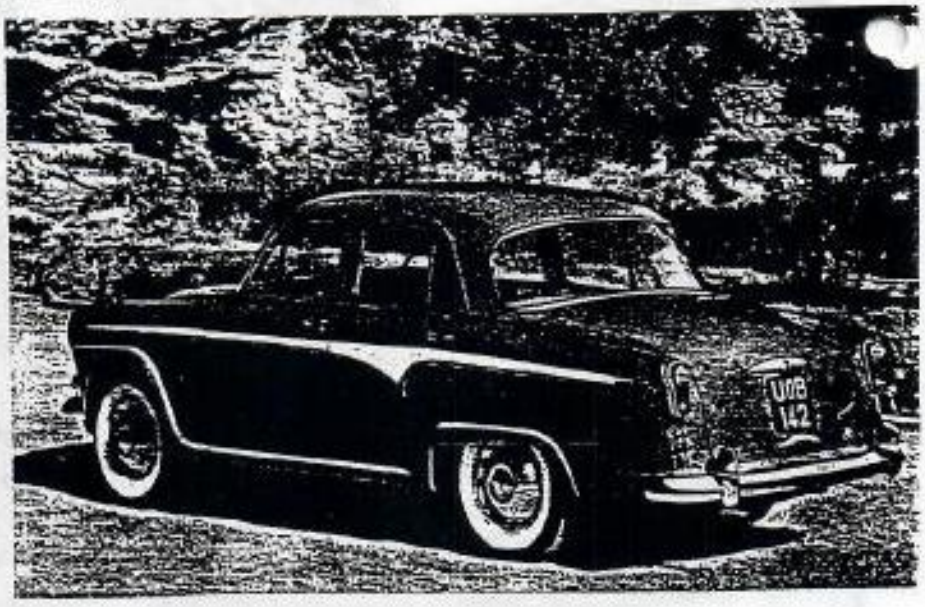
The A.105 is an excellent family car; it is suitable for the business man who has to cover a big annual mileage; and th the ample baggage space provided .. is a fine long-distance tourer.

Before the actual Road Test, the car had been used by *The Autocar* in covering the Tulip Rally. Provision of a car fitted with automatic transmission for this assignment caused the crew certain misgivings at the outset. It was realized that Rally conditions called for long hours of arduous driving, and previous experience of a transmission of similar type raised some doubts as to how it would behave on mountain roads. It is in the accelerate-slow-accelerate conditions of fast, mountain pass climbing that the "brain" of an automatic transmission may sometimes be found wanting, and the ability to select and hold a ratio regardless of accelerator position would be welcome.

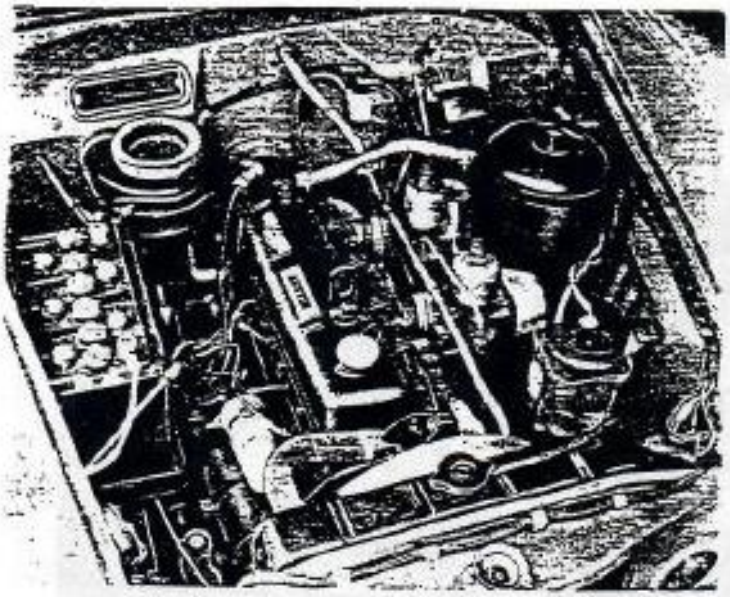
In the event, on a journey of over 2,000 miles, it was found that this happy combination of car and transmission could be driven at much more than everyday average speeds, up hill and down, and still maintain station with fast rally cars fitted with hand change, synchromesh gear boxes. Up hill, with numerous hairpin bends to negotiate, it was sometimes found that a quick change to Low range retained the optimum ratio for full control in rapid cornering, and the change up to Drive could be made as required.

Although engine braking is not available in the Drive range, Low provides this in addition to the useful maximum of 45 m.p.h., and if a gradient is severe enough for engine braking to be required, then 45 m.p.h. is probably as fast as one would wish to go down that particular hill. For leisurely driving over mountain passes, the automatic transmission is efficient, and calls for the minimum effort on the part of driver and car.

In Alpine country continuous gear changing with conventional clutch pedal and gear lever calls for considerable activity on the part of the driver. The automatic transmission avoids this, and it was thought that the crew bene-



An excellent rear view is obtained through the large curved window. A lid, locked by the ignition key, covers the petrol tank filler. White wall tyres are standard



Twin S.U. H4 carburettors are used on the A.105 engine; there is a mechanical petrol pump and AC oil bath air cleaner. The battery and fuses are accessible. Right: The early morning sun of southern Germany shines on the ice-encrusted A.105

Austin A.105 . . .

fited physically. On part of the route snow and ice was encountered, and it was found possible to maintain control and reasonably high speeds in these conditions. Mechanically the automatic unit behaved without any vices, and the transmission as a whole was quiet.

The twin-carburettor engine develops 10 b.h.p. more than the single carburettor version used in the A.95, which has the same body construction and dimensions. According to the makers' figures, the automatic transmission A.105 weighs 1 cwt more than the car from which it is derived, but the extra power is well able to take care of this. The acceleration figures quoted in the data tables are excellent, and the maximum speed almost lifts the A.105 into the *gran turismo* class. Although the automatic 105 accelerates to 60 m.p.h. less rapidly than the manual change A.95 (*The Autocar* Road Test, 25 January 1957), thereafter it steps away very smartly.

The six-cylinder engine is an easy starter, and proved very smooth. Even in severe freezing conditions, little use of the choke was necessary, and the engine would pull without misfiring when cold. Surprisingly enough, having regard to the provision of two carburettors and automatic transmission, it could be made to propel the car in a very economical fashion. Consumption tests carried out on an undulating road gave a figure of 27.5 m.p.g. at a steady 30 m.p.h.; even at 70 m.p.h. the car recorded 23.5 m.p.g. These tests were carried out with the driver only on board.

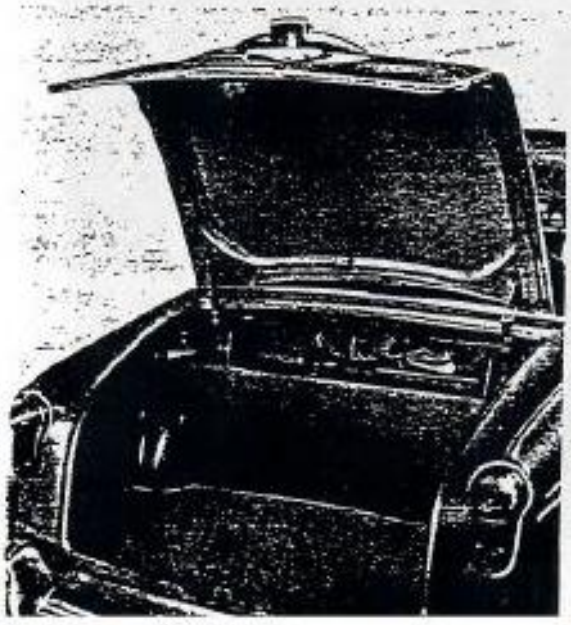
Included in the overall figure quoted—20.8 m.p.g.—were fast main road journeys where the maximum speed was used when possible, town driving, and, in general, conditions least favourable to economical motoring. On most of these occasions all seats were occupied and some luggage was carried. The designers should be complimented on fitting the car with a sensible size fuel tank, holding 16 gallons, with the additional advantage of a large filler orifice.

During the previous Road Test of an Austin A.105, published in June, 1956, the brakes came in for some criticism. It was wondered how those of the new car would behave, especially in view of exacting Rally requirements and the extra work put on them as a result of the automatic transmission, but at no time was there any sign of fade or unevenness. It was necessary to press the pedal hard for full

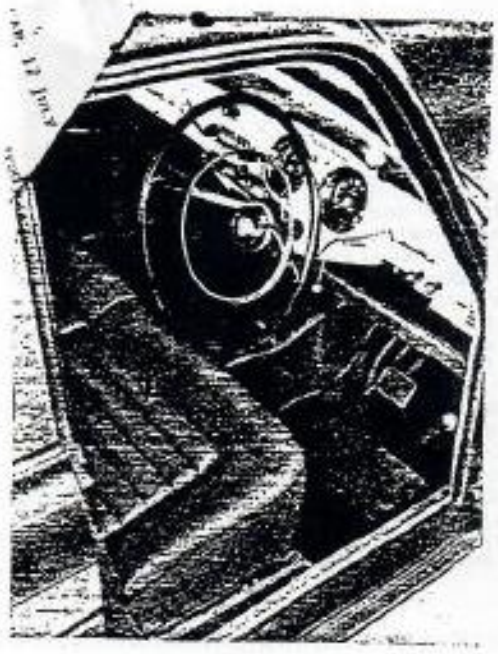
retardation (72.7 per cent), but check braking in traffic or out of town called only for average pressures. The hand brake is effective, although the lever is rather tucked away behind the steering wheel.

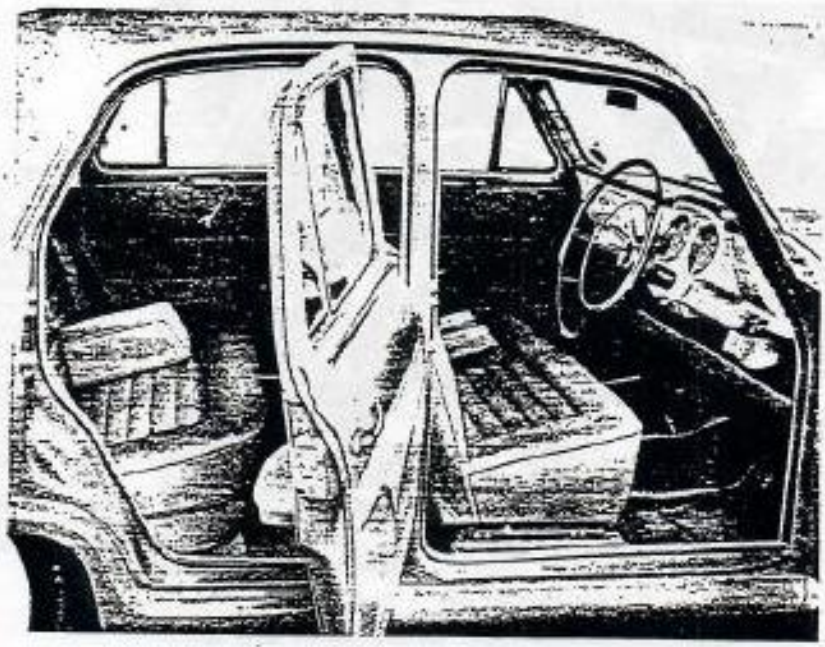
A large proportion of the total weight of the car is on the front wheels, but this does not give rise to any road-holding peculiarities. An anti-roll bar fitted to the rear axle helps the car to corner without heeling over and without a great deal of tyre squeal, even when the car is driven hard. The ride in both front and rear compartments is good and the car holds the road well when driven fast—an indication of a reassuring reserve of stability in ordinary motoring. Rough surfaces are not apparent to a marked degree, though there was the feeling of firmness in the suspension. It did not, however, give rise to adverse criticism by rear seat passengers.

The steering is light and has a good self-centring action. There is very good directional stability at high speed and, at the other end of the scale, the car can be manœuvred easily when parking. Some drivers do not like the rather large-



The luggage locker has a fitted, flat floor and is easy to load. Tools are housed on a shelf above the fuel tank. The lid is counterbalanced by two coil springs. The spare wheel is carried on a tray beneath the locker, lowered and raised by turning a large, slotted bolt head





The seat cushions are thickly upholstered and there are folding central armrests. Separate switches are provided for the fog lamps. The direction signalling switch is to the right of the steering column housing

diameter steering wheel which has become a feature of the marque; after a week of concentrated driving in the car, the size had not proved an embarrassment.

Reference was made earlier in this report to the suitability of the car for long-distance touring. It has a fine cruising speed range, and does not tire however long or hard it is driven. In this respect the machine is better off than the driver; the rake of the front seat backrests is too upright, and on a long journey the driver has the feeling of being thrust towards the steering wheel. The large cover over the gear box intrudes into the space available for the driver's left foot, and his left leg is forced to adopt an "off centre" position which can become tiring after a time.

The seat cushions are well upholstered and there is good support for the thighs. There is an armrest on each door; that on the driving side does not interfere with movement. Central folding armrests on the separate seats add to the comfort of driver and passenger, and give lateral support when the car is being cornered briskly.

The actual driving position is good, in that there is ample visibility through the large, curved windscreen and the screen pillars do not interfere with sideways vision to any m[illegible] degree. The "flying A" motif makes a good aiming po[illegible] for those drivers who prefer such an aid, and the top of each wing can be seen clearly by drivers of varying heights. The brake pedal is well positioned and can be operated by either foot; the accelerator had an annoying habit of tapping the driver's foot at certain engine speeds.

Two large dials contain the main instruments, which can be read without difficulty except for two areas in which the driver's vision is obstructed by the horn ring. There are only four main switches in addition to the light and ignition switch, and it is difficult to see the need for the four small identification lights on the lower part of the panel; they were found to be distracting at night. The main panel lighting, which does not have rheostat dimming control, is bright enough without causing glare, and the gear position indicator also is illuminated. As a safety provision, the top of the facia is covered with plastic-backed sponge rubber; though it is not very thick it has the additional advantage of preventing reflections in the windscreen.

Head lamps with good-quality reflectors are fitted on the A.105 and those who wish to do so may drive fast at night with ample illumination. There is good beam length and width, and oncoming traffic did not appear to be troubled when the dipped beam was in use. It was difficult to determine if the plated cowls over the lamp rims served any practical purpose. Twin fog lamps—standard equipment—are controlled by individual switches on the right of the facia panel. Strangely enough, on this otherwise fully equipped car there is no reversing light.

The self-parking wipers clean the screen well, but they have a slow movement. Dual Windtone horns, mounted behind the radiator grille, project an effective warning. Space for small articles is provided by a cubby hole, the lid of which when closed can be locked by a separate key, and when dropped down forms a useful small table. Beneath the facia is a full-width shelf of commendable depth.

Other comforts for driver and passengers include a screen washer, electric clock, sun vizors and a very effective heating and demisting unit, which cleared the screen readily in cold and wet conditions. The heater proved adequate in the severe winter weather encountered on the Tulip Rally. Later, during a heat wave in England, the extra fresh air control beneath the facia admitted a pleasant cooling draught to the interior. Ample air flow through the car could be had by opening the quarter vents in the rear

Fresh air is taken in through the aperture in the bonnet top. The twin fog lamps are part of the standard equipment