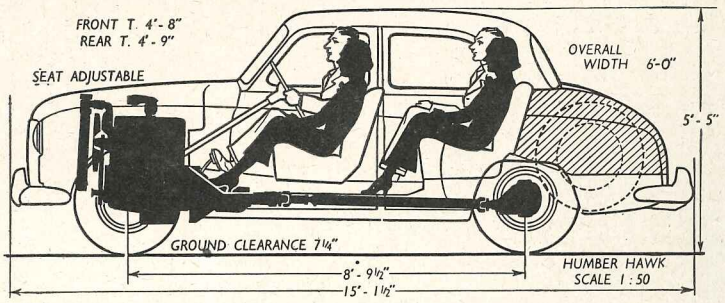
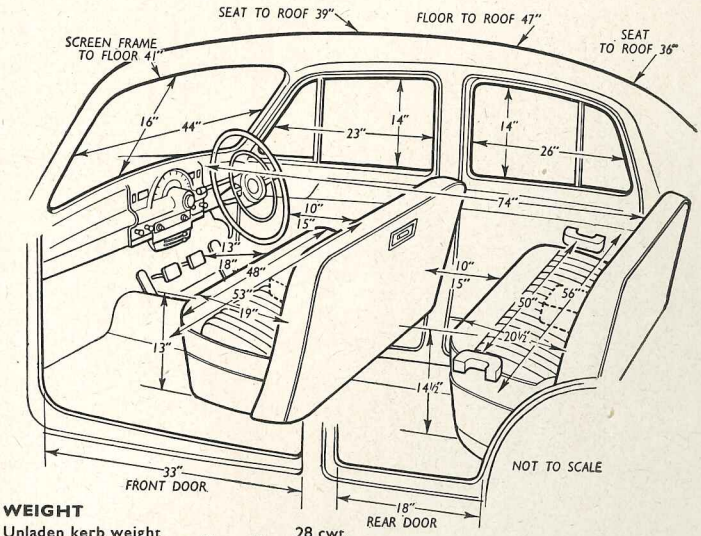
The Motor Road Test No. 26/54

Make: Humber **Type:** Hawk (Mark VI) Saloon

Makers: Humber Ltd., Coventry





Test Data

CONDITIONS: *Weather: Fine and warm for acceleration, speed and braking tests; wet for constant-speed fuel consumption tests. Surface: Smooth tarred macadam. Fuel: Premium grade.*

INSTRUMENTS

Speedometer at 30 m.p.h.	2% fast
Speedometer at 60 m.p.h.	1% fast
Distance recorder	accurate

MAXIMUM SPEEDS

Flying Quarter Mile

Mean of four opposite runs (o'drive)	80.0 m.p.h.
Best time (overdrive) equals	81.8 m.p.h.
Mean of two opposite runs (direct top)	79.3 m.p.h

Speed in Gears

Max. speed in 3rd gear	59 m.p.h.
Max. speed in 2nd gear	36 m.p.h.

FUEL CONSUMPTION

34.0 m.p.g. at constant 30 m.p.h.	
32.0 m.p.g. at constant 40 m.p.h.	
28.0 m.p.g. at constant 50 m.p.h.	
23.5 m.p.g. at constant 60 m.p.h.	
21.5 m.p.g. at constant 70 m.p.h.	
Overall consumption for 1,032 miles, 46½ gallons	=22.2 m.p.g.
Fuel tank capacity, 10 gallons.	

ACCELERATION TIMES Through Gears

0-30 m.p.h.	6.1 sec.
0-40 m.p.h.	10.4 sec.
0-50 m.p.h.	15.3 sec.
0-60 m.p.h.	22.9 sec.
0-70 m.p.h.	36.0 sec
Standing Quarter Mile	22.3 sec

ACCELERATION TIMES on Upper Ratios

	Overdrive	Top	3rd
10-30 m.p.h.	—	8.9 sec.	5.7 sec
20-40 m.p.h.	13.6 sec.	9.6 sec.	7.2 sec.
30-50 m.p.h.	14.5 sec.	11.1 sec.	8.9 sec.
40-60 m.p.h.	17.2 sec.	14.3 sec.	—
50-70 m.p.h.	27.1 sec.	21.8 sec	—

WEIGHT

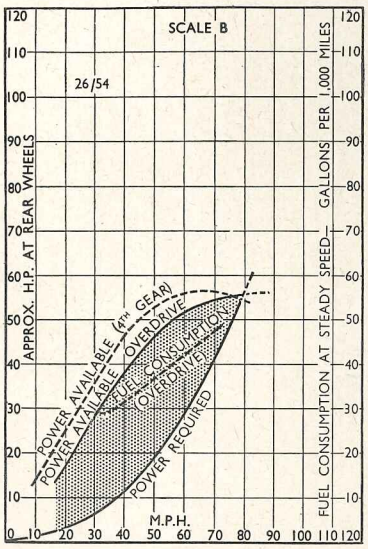
Unladen kerb weight	28 cwt.
Front/rear weight distribution	55/45
Weight laden as tested	31½ cwt

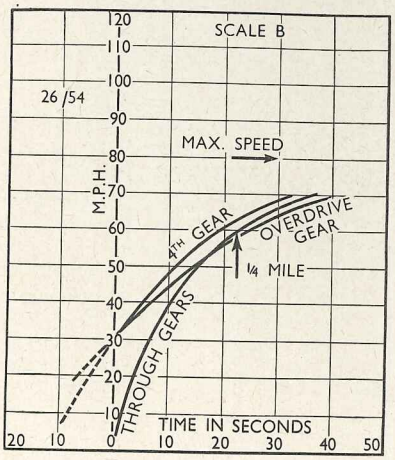
HILL CLIMBING (At steady speeds)

Max. top gear speed on 1 in 20	64 m.p.h.
Max. top gear speed on 1 in 15	59 m.p.h.
Max. top gear speed on 1 in 10	47 m.p.h.
Max. gradient on overdrive	1 in 12.4 (Tapley 180 lb./ton)
Max. gradient on top gear	1 in 9.1 (Tapley 245 lb./ton)
Max. gradient on 3rd gear	1 in 6.2 (Tapley 355 lb./ton)

BRAKES at 30 m.p.h.

0.92 g retardation	(= 33 ft. stopping distance) with 110 lb. pedal pressure
0.88 g retardation	(= 34½ ft. stopping distance) with 100 lb. pedal pressure
0.60 g retardation	(= 50 ft. stopping distance) with 75 lb. pedal pressure
0.43 g retardation	(= 70 ft. stopping distance) with 50 lb. pedal pressure
0.21 g retardation	(=144 ft. stopping distance) with 25 lb. pedal pressure





Drag at 10 m.p.h. 40 lb.
Drag at 60 m.p.h. 178 lb.
Specific Fuel Consumption when cruising at 80% of maximum speed (i.e. 64 m.p.h.) on level road, based on power delivered to rear wheels. 0.68 pints/b.h.p./hr.

Maintenance

Sump: 10½ pints, S.A.E. 30 (summer) 20 (winter). **Gearbox:** 2 pints, S.A.E. 30 (S.A.E. 20 below 10° F). **Rear axle:** 1¾ pints, 90 E.P. (80 E.P. below −10° F). **Steering gear:** ¾ pint, 140 E.P. (90 E.P. below +10° F.). **Radiator:** 22 pints (2 drain taps). **Chassis lubrication:** By grease gun every 1,000 miles to 11 points and every 2,000 miles to 17 additional points. **Ignition timing:** 2° B.T.D.C. (standard grade fuels), 4° B.T.D.C. (premium grades). **Spark plug gap:** 0.028—0.032 in. **Contact breaker gap:** 0.014—0.016 in. **Valve timing:** Inlet opens 15° B.T.D.C. and closes 49° A.B.D.C. Exhaust opens 53° B.B.D.C. and closes 11° A.T.D.C. **Tappet clearances** (Hot): Inlet 0.007 in. Exhaust 0.009 in. **Front wheel toe-in:** ⅛ in. **Camber angle:** 0° 45 mins. (+ or −15 mins.)., **Castor angle:** 0°. **Tyre pressures:** Front 22 lb., rear 22 lb. (or 24 lb. and 26 lb. with full load and luggage). **Brake fluid:** Lockheed. **Battery:** 12 volt. 51 amp./hr. (Lucas GTW 9A). **Lamp bulbs:** Headlamps, 42/36 watt; side 6/18 watt; stop/tail/indicators, 6/18 watt; rear number plate 4 or 6 watt; roof lamp, 6 watt; panel lights, 2.2 watt; clock 3 watt; warning lights, 2.2 watt.

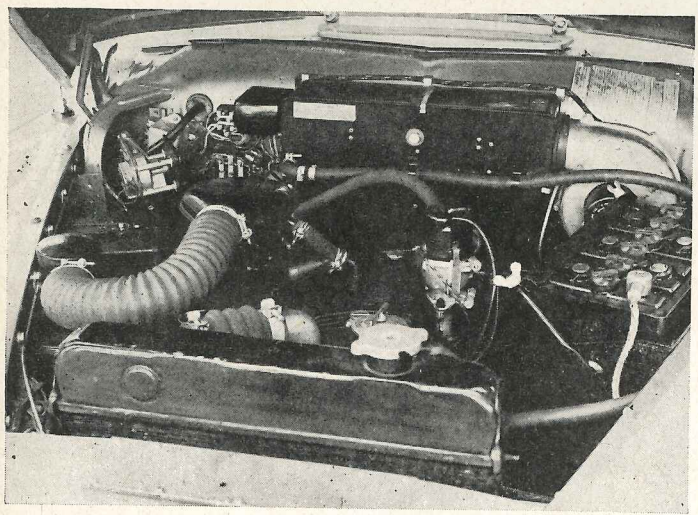
The HUMBER Hawk Mk. VI

SMOOTH and attractive lines and large window areas characterize the Hawk, which in its latest form is little changed externally but reveals notably livelier performance.

New o.h.v. Engine Makes Lively Performer of Medium-powered Model Already Well-known for Roominess and Comfort

SINCE its original introduction in modern post-war form some six years ago, the Humber Hawk has occupied a place of affection amongst a wide circle of users as a car in which roominess and comfort have taken pride of place; performance has been adequate rather than noteworthy.

The substitution last June of a new o.h.v. engine (of the same size as the former side-valve type) means that the latest Mark VI Hawk, whilst continuing to offer unusual roominess and comfort for a car in the 2-2½ litre class, now takes its place in the 80 m.p.h. performance group. Not only have speed and acceleration been improved, but handling qualities and braking have also received attention on the latest type to maintain a good all-round balance of road behaviour.



NEW POWER.—Air cleaner, distributor, battery and heater unit are prominent in this view of the engine bay, which houses a power plant identical in capacity with earlier Hawks but now with o.h. valves, and developing 70 b.h.p. in place of 58 b.h.p.

Comparisons with the figures obtained when the last example of a Hawk was tested, show how greatly the new o.h.v. unit has improved performance. The new Mark VI model achieved a mean speed of exactly 80 m.p.h. with a best run of 81.8 m.p.h., the former representing an improvement of no less than 12% over the 71.4 m.p.h. mean speed of the side-valve type.

As readers who studied our full description of the Mark VI model (*The Motor*, June 16, 1954) will recall, the new engine peaks at 4,000 r.p.m., at which speed an output of 70 b.h.p. is achieved, compared with the 58 b.h.p. of the older engine at 3,400 r.p.m. From this, some readers might have assumed that the improved performance would become apparent only at the top end of the range and that the new unit would be no better—perhaps even inferior—in slogging powers at low speeds. This is far from being so. It is quite true that the big gain is in the upper ranges, but the o.h.v. unit, nevertheless, shows its superiority at low speeds as well.

Thus the 10-30 m.p.h. top-gear acceleration figure represents an improvement of 7.3%, clearly indicating that the driver who wants an engine which will slog as well as rev will not be disappointed. The really big gain becomes noticeable in the middle and upper ranges, the 40-60 m.p.h. top-gear figure, for example, showing the very notable improvement of 21%.

The car tested was fitted with the Laycock-de Normanville overdrive, which is available as an extra at £63 15s. including purchase tax increment. With this in use, notably good constant-speed fuel consumptions were also obtained and the new Hawk at 70 m.p.h. in overdrive recorded exactly the same consumption rate (21.5 m.p.g.) as the former model showed at 60 m.p.h. in normal top.

The overall consumption figure recorded embraced more than a thousand miles of hard driving including the usual performance tests, a number of long-distance journeys made at a cruising speed of 65-70 m.p.h. and a proportion of short-distance traffic driving—in short, the sort of usage which is very heavy on fuel consumption. Few owners indeed are likely to obtain a worse figure and the great majority should do very much better.

The overdrive is an extra which can be strongly recommended. It serves to step-up the normal top gear of 4.55 to 1 to 3.54 to 1 and makes main-road cruising particularly effortless, the engine speed at 65 m.p.h. in overdrive, for example, being no more than that at 51 m.p.h. in direct

In Brief

Price: £695 plus purchase tax £290 14s. 2d., equals £985 14s. 2d.
Capacity ... ... 2,267 c.c.
Unladen kerb weight ... 28 cwt.
Fuel consumption (driven hard) 22.2 m.p.g.
Maximum speed ... ... 80.0 m.p.h.
Maximum speed on 1 in 20 gradient ... ... 64 m.p.n.
Maximum top gear gradient 1 in 9.1
Acceleration:
10-30 m.p.h. in top ... 8.9 sec.
0-50 m.p.h. through gears 15.3 sec.
Gearing: 17.0 m.p.h. in top (21.8 m.p.h. in overdrive) at 1,000 r.p.m.; 59.0 m.p.h. in top (74.9 m.p.h. in overdrive) at 2,500 ft. per min. piston speed.

LENGTHENED rear wings give a slightly altered appearance to the Mk. VI version of this roomy car, whose large rear window contributes to the general air of lightness and space in the interior.

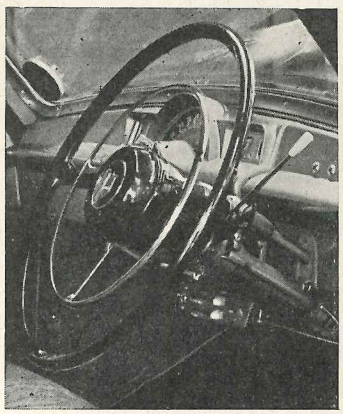
top gear. On the Hawk a genuine 70 m.p.h. proved a quite effortless speed in overdrive and the sort of pace, in fact, which a driver in a hurry finds himself adopting without thought, the more so as the Hawk is also a fairly quiet car from the point of view of wind noise.

Solenoid operation, manually controlled by a neat switch on the right of the steering column, is used for the overdrive and the change is clutchless; all that is required is a flick of the switch with the finger tips without the need, even, for taking one's hand from the wheel. Provided that this was done with the throttle open—on either upward or downward changes—engagement proved imperceptible at low speeds and never objectionable at high, although pernickety drivers might prefer to ease the clutch pedal partially in the latter case as engagement takes place. It should be stressed, however, that this is not in any way necessary.

Individual ideas vary on when and how overdrive should be used. On the Hawk, leisurely drivers will find it pleasant for ambling at speeds even as low as 30 m.p.h. Alternatively, the driver in a hurry will accelerate through the gears in the normal way to his usual cruising speed, slipping into overdrive when he reaches it.

The normal gear-change is of the familiar Rootes steering-column type, giving quick and easy changes which call for no finesse. The actual lever positions on the model tried, were not quite so well defined as on previous cars of this make which we have experienced, it being possible, when engaging a gear from rest, to find oneself accidentally in third instead of first, or in top in place of second. It speaks well for the smoothness of the clutch that these mistakes, on the few occasions they occurred, did not result in stalling the engine, the latest clutch operation being particularly smooth and light. Two other minor transmission criticisms, were an occasional difficulty in finding reverse gear and a slight tendency to judder when the clutch was engaged in reverse. The gears themselves proved pleasantly quiet, adding to the general restfulness of driving the car.

The new engine proved a ready starter and one or two distinctly chilly "summer" mornings showed the excellent way the



COMFORT has been particularly well catered for in the Hawk, well-padded seats having wide central folding armrests and the front seat lending itself to height and rake adjustments as well as fore-and-aft sliding. The small picture (*above*) shows how the overdrive control lever is set close to the wheel for quick, simple use; no clutch operation is necessary during engagement or disengagement of the overdrive.

The Humber Hawk Mk. VI

thermostatically-controlled hot-spot enables it to settle down quickly to its work. It has the crisp feel of a lusty "four" but is entirely free from vibration periods and remains commendably quiet throughout the range; in this, the careful attention to sound deadening, which is carried to the extent of a thick padding of glass wool on the underside of the bonnet top, no doubt plays its part. At very low speeds in top gear, the individual beat of the cylinders can be detected, but the unit continues to pull without trace of hesitation or snatch.

The main components requiring routine check are located high in relation to the bonnet sides, where they can be easily reached, but accessibility would be even better if the counterbalanced bonnet were arranged so that its normal point of balance was a little higher.

Re-positioned Anti-roll Bar

The suspension of the Mark VI Hawk is soft, but not excessively so and the degree of damping is well chosen for all normal needs. The only occasion when greater restraint would have been an advantage was when travelling fast with a full load on a by-pass, the foundation of which had obviously settled to leave a surface which was undulating rather than bumpy. On corners, roll is well controlled by the newly-placed anti-roll bar, which has been transferred to the front to improve steering characteristics.

During the course of the test, a most unusual puncture was caused by a $\frac{1}{4}$-in. Whitworth spanner which, evidently picked up by a front wheel, caught the tread of a rear tyre end-on and produced a nasty gash. In spite of the fact deflation was virtually instantaneous, no effect was felt on the steering and the car did not deviate from a straight course.

Cornering characteristics have been very distinctly improved and the Mark VI can be driven with a considerable degree of dash and determination on winding roads without displaying any unexpected vices.

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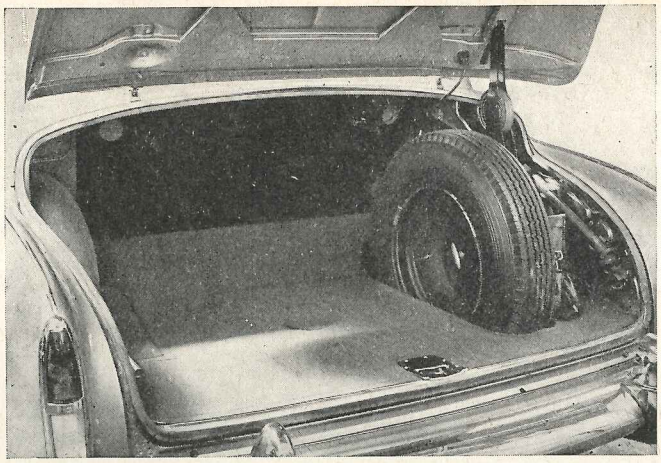
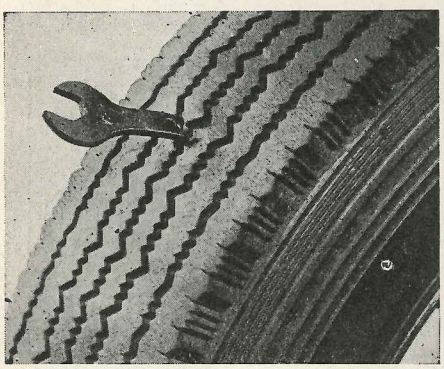


LARGE and flat-floored, the boot offers all the space likely to be required for family luggage even on long holidays.

The steering is, admittedly, rather low geared and although this naturally results in some wheel-twiddling when parking or driving in confined spaces, the fact is not obvious under normal conditions unless a sudden swerve is required; in these circumstances one is conscious of a slight feeling of remoteness between the steering wheel and the front end. Normally, the steering is light and free from road reaction, whilst the lock is particularly good for a car of this size.

The general placing of the controls is in keeping with the roominess of the car. Good points include a large, nicely-raked steering wheel with a convenient horn ring,



THE stability of the Hawk was well demonstrated during the test when this spanner caused almost instantaneous deflation of a rear tyre without the car showing any sudden deviation from the straight.

well-spaced pedals (with an organ-type accelerator and a similar arrangement for the left foot in the form of a combined foot rest and dipper), sensibly-disposed minor controls and a large arc-type dial for the unusually-accurate speedometer, which can be seen easily by all the occupants.

Points which did not meet with entire approval included a handbrake which, although of sensible size and power, could not be reached without leaning well forward, a clock dial which was difficult to decipher from an angle, and mileage-recording figures on the speedometer which were also not too easy to read at a quick glance. For night driving, a very suitable degree of illumination has been chosen for the main instruments but the lighter clock face, being above the screen and nearer the driver's line of vision, proved slightly distracting. The water thermometer, incidentally, is one of the new electric type which disconcerts an unfamiliar driver by recording "hot" when the ignition is switched off, the hand reverting to the correct temperature reading as soon as the ignition is switched on again.

Interior comfort is of a high order, with very roomy seats and well-padded upholstery. The folding arm rests, moreover, are broad so that a mere two occupants on the three-abreast front or rear seats do not feel lost. Another excellent point is that, in addition to the usual sliding arrangement, the front bench seat has a bolt adjustment for its rear mounting so that, with comparatively little trouble, both the squab angle and seat height can be adjusted to suit the owner. Other good coachwork details include very easy access, almost non-existent wheel arches at the rear and a floor which is very nearly flat.

Good Visibility

The window and screen area is large, giving an excellent all-round view to both driver and passengers. To the front, a tall driver can just see his nearside wing top over the rather featureless bonnet. Wide arcs of the deep curved screen are cleared by the wipers but, in sunny weather, a minor irritation is caused by reflections of the steering wheel and gear lever in the glass.

Ventilation is looked after by quick-acting winding windows and the usual hinged ventilating panel on the front doors; these open through a wide angle to bring in fresh air if required but, on the car tried, were apt to close if left in this reversed position at high speed. A scuttle top ventilator is provided and, as an extra at £17 10s., a fresh-air heating and demisting system is provided, with the motor under the bonnet for silence. In practice, we found the motor generally unnecessary, as the motion of the car was quite adequate at any speed over 25-30 m.p.h.

The general roominess of the Hawk extends to provision for luggage, the boot being particularly large. For odds and ends there is a useful lockable recess on the passenger's side of the facia board, the lid of which remains horizontal when open and is plastic-covered to act as a miniature picnic table. No door pockets are fitted in the rear, but those at the front are particularly deep and will each accommodate a couple of vacuum flasks.

Detail points worth special mention include a roof light of adequate brightness (with courtesy switches), headlights suitable for 70 m.p.h. and bumpers which not only have a good wrap-round, but project sufficiently to give a good measure of side protection when reversing close to a wall.

In all this Mark VI represents a very worthwhile step forward, combining all the virtues of previous Hawk models with a new and most satisfying liveliness.

Mechanical Specification

Engine

Cylinders	4
Bore	81 mm.
Stroke	110 mm.
Cubic capacity	2,267 c.c.
Piston area	31.9 sq. in.
Valves	Overhead (pushrod)
Compression ratio	7/1
Max. power	70 b.h.p.
at	4,000 r.p.m.
Piston speed at max. b.h.p.	2,890 ft. per min.
Carburetter	Stromberg downdraught, D1 36
Ignition	Coil
Sparking plugs	Champion NA8
Fuel pump	AC mechanical
Oil filter	AC by-pass

Transmission

Clutch	9-in. Borg & Beck s.d.p.
Top gear (s/m)	4.55 (o'drive 3.54)
3rd gear (s/m)	6.79
2nd gear (s/m)	11.26
1st gear	14.52
Propeller shaft	Hardy Spicer, open
Final drive	Hypoid bevel
Top gear m.p.h. at 1,000 r.p.m.	17 (o'drive 21.8)
Top gear m.p.h. at 1,000 ft./min. piston speed	23.6 (o'drive, 30.0)

Chassis

Brakes	Lockheed hydraulic (2 l.s. on front)
Brake drum diameter	10 in.
Friction lining area	172 sq. in.
Suspension:	
Front	Independent (coil)
Rear	Semi-elliptic
Shock absorbers:	
Front	Armstrong piston type, DAS 10
Rear	Armstrong piston type, DAS 9
Tyres	6.40 x 15 cushion

Steering

Steering gear	Burman re-circulating ball
Turning circle	Left 37 ft., right 37 ft.
Turns of steering wheel, lock to lock	4

Performance factors (at laden weight as tested)

Piston area, sq. in. per ton	20.9
Brake lining area, sq. in. per ton	109
Specific displacement, litres per ton mile	2,550 (o'drive 1,990)

Fully described in *The Motor*, June 16, 1954.

Coachwork and Equipment

Bumper height with car unladen:
Front (max.) 21¼ in., (min.) 12¼ in.
Rear (max.) 22½ in., (min.) 13 in.

Starting handle	Yes
Battery mounting	Under bonnet
Jack	Screw pillar type
Jacking points	4 (under bumpers)

Standard tool kit: Tyre pump, wheelbrace, grease gun, adjustable spanner, plug spanner, carburetter spanner, 4 open-ended spanners, pliers, 2 tyre levers, Lockheed bleeder kit, nave-plate extractor, distributor key, tyre valve key, screwdriver, valve and plug gauges.

Exterior lights: 2 headlamps (double-dipping), 2 side lamps (incorporating direction indicators), 2 stop/tail lamps (incorporating direction indicators), rear number plate lamp.

Direction indicators	Flasher type, self-cancelling
Windscreen wipers	Dual electric (self-parking)
Sun vizors	2 (universally mounted)

Instruments: Speedometer (with total and trip mileage), thermometer, fuel gauge and clock.

Warning lights: Ignition, oil pressure, main headlamp beam and flashing direction indicators.

Locks:

With ignition key	Door
With other keys	Cubby locker and boot
Glove lockers	1
Map pockets	In front doors (large)
Parcel shelves	Behind rear squab
Ashtrays	2 (in centre of facia and back of front squab)
Cigar lighters	None

Interior lights: Central roof lamp (with independent and courtesy switches).

Interior heater	Optional extra
Car radio	Optional extra

Extras available: Laycock-de Normanville overdrive, heater and demister, radio, screen washer, exterior sun vizor, rim finishers, exterior door mirror, tow-bar attachment, badge bar and fog lamp carrier, white-wall tyres, petrol tank locking cap, reversing lamp.

Upholstery material	Leather (leathercloth on export models)
Floor covering	Carpet
Exterior colours standardized:	Black, beech green, desert sand, quartz blue, silver gun.
Alternative body styles	Touring limousine