

Road Test prior to the introduction of D1/D2 Transmission  
Acceleration and mpg. were much improved.  
We are arranging a new Road Test sometime *JK*

Road Test Report of  
**The**  
**DAIMLER V-8**

*Reprinted from*

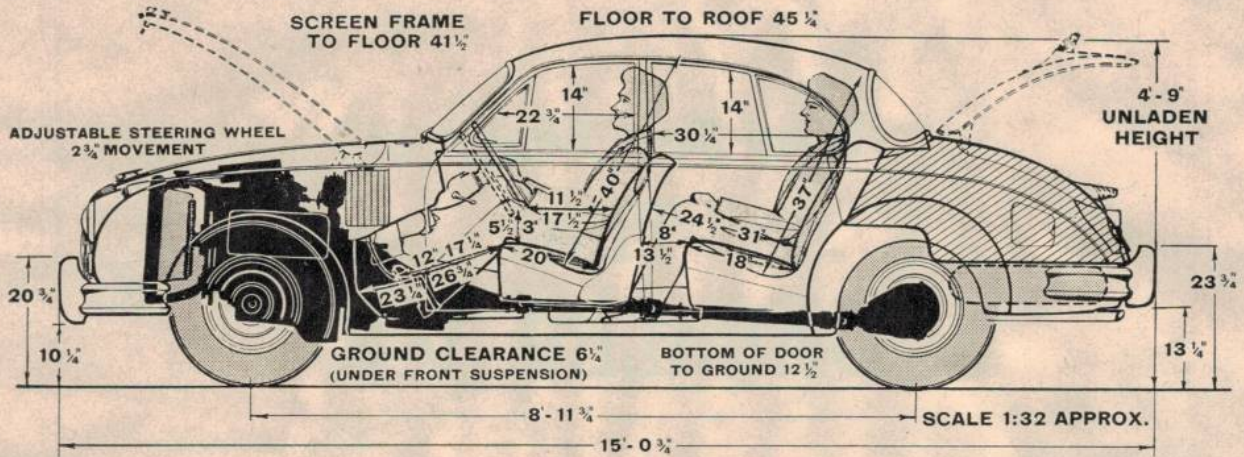
**THE  
Motor**

*April 17, 1963*



# Extended ROAD TEST No. 15/63

MAKE Daimler ● 2½-litre V8 Saloon  
 ● MAKERS The Daimler Co. Ltd., Coventry, England ●



## Test Data

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Conditions: Weather: Mild and dry with light wind. (Temperature 45°-50° F., Barometer 29.8 in. Hg.) Surface: Dry tarmacadam. Fuel: Premium grade pump petrol (98 Octane by Research Method).

### MAXIMUM SPEEDS

#### Flying Mile

Mean of four opposite runs ... 109.5 m.p.h.  
 Best one-way mile time equals ... 110.2 m.p.h.  
 "Maximile" Speed: (Timed quarter mile after one mile accelerating from rest)  
 Mean of four opposite runs ... 105.9 m.p.h.  
 Best one-way time equals ... 107.1 m.p.h.

#### Speed in gears (automatic control)

Max. speed in 2nd gear ... 64 m.p.h.  
 Max. speed in 1st gear ... 40 m.p.h.

### ACCELERATION TIMES

#### from standstill

0-30 m.p.h.	4.8 sec.
0-40 m.p.h.	7.0 sec.
0-50 m.p.h.	9.6 sec.
0-60 m.p.h.	13.5 sec.
0-70 m.p.h.	18.4 sec.
0-80 m.p.h.	24.2 sec.
0-90 m.p.h.	31.8 sec.
0-100 m.p.h.	42.3 sec.

Standing quarter mile 19.8 sec.

#### on upper ratios

Speed Range	Top gear "kick down" range	Time
10-30 m.p.h.	— sec.	3.6 sec.
20-40 m.p.h.	— sec.	3.9 sec.
30-50 m.p.h.	8.3 sec.	4.8 sec.
40-60 m.p.h.	8.8 sec.	6.5 sec.
50-70 m.p.h.	10.5 sec.	8.8 sec.
60-80 m.p.h.	11.5 sec.	10.7 sec.
70-90 m.p.h.	13.4 sec.	13.4 sec.
80-100 m.p.h.	18.1 sec.	18.1 sec.

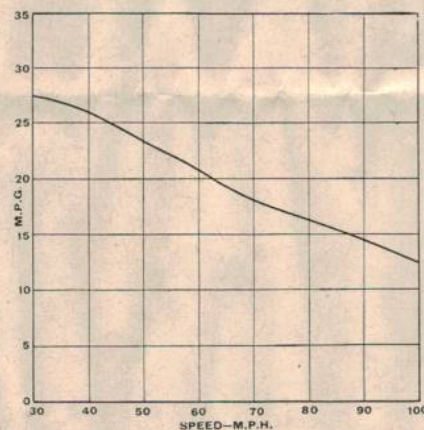
### Overtaking

Starting at 40 m.p.h. in direct top gear, distance required to gain 100 ft. on another car travelling at a steady 40 m.p.h. = 455 ft.

### FUEL CONSUMPTION

Overall Fuel Consumption for 2,302 miles 140.5 gallons, equals 16.4 m.p.g. (17.25 litres/100 km.)

### FUEL CONSUMPTION AT STEADY SPEEDS



Touring Fuel Consumption (m.p.g. at steady speed midway between 30 m.p.h. and maximum, less 5% allowance for acceleration) 17.2 m.p.g.

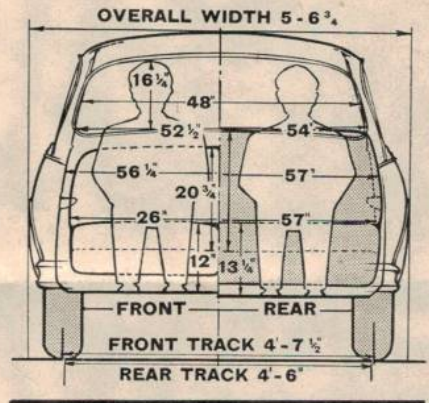
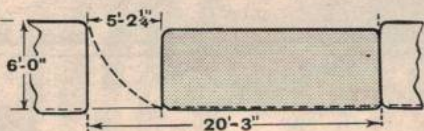
Fuel tank capacity (maker's figure) 12 gallons

### STEERING

Turning circle between kerbs: Left 33 ft., Right 34 1/2 ft.  
 Turns of steering wheel from lock to lock 4 1/2  
 Steering wheel deflection for 50 ft. diameter circle = 1.5 turns  
 Steering force (at rim of wheel) to move front wheels at rest = 15 lb.  
 Steering force to hold car on 100 ft. diameter circle at 15 m.p.h. (= 0.3 g approx.) = 4 1/2 lb.

### PARKABILITY

Gap needed to clear a 6-ft obstruction.



### BRAKES

Deceleration and equivalent stopping distance from 30 m.p.h.  
 1.00 g with 110 lb. pedal pressure .. (=30 ft.)  
 0.97 g with 100 lb. pedal pressure .. (=31 ft.)  
 0.81 g with 75 lb. pedal pressure .. (=37 ft.)  
 0.55 g with 50 lb. pedal pressure .. (=55 ft.)  
 0.23 g with 25 lb. pedal pressure .. (=130 ft.)

### Handbrake

0.36 g deceleration from 30 m.p.h. .. (=83 ft.)

### Brake Fade

TEST 1. 20 stops at 1/2 g deceleration at 1 min. intervals from a speed midway between 30 m.p.h. and maximum speed (=70 m.p.h.)  
 Pedal force at beginning .. = 40 lb.  
 Pedal force for 10th stop .. = 45 lb.  
 Pedal force for 20th stop .. = 45 lb.  
 TEST 2. After top gear descent of steep hill falling approximately 600 ft. in half a mile increase in brake pedal force for 1/2 g stop from 30 m.p.h. .. = 0 lb.

### Waterproofing

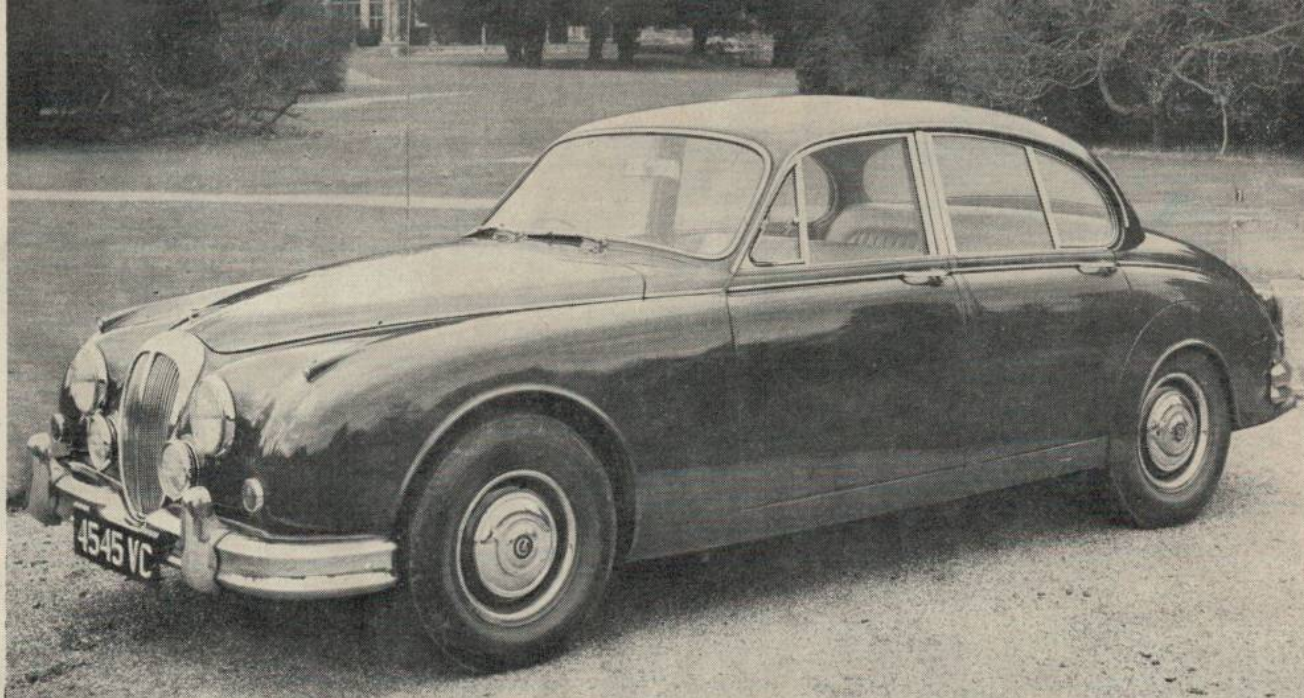
Increase in brake pedal force for 1/2 g stop from 30 m.p.h. after two runs through shallow watersplash at 30 m.p.h. .. = 15 lb.

### INSTRUMENTS

Speedometer at 30 m.p.h. ... accurate  
 Speedometer at 60 m.p.h. ... 1 1/2% fast  
 Speedometer at 90 m.p.h. ... 2% fast  
 Distance recorder ... 1 1/2% slow

### WEIGHT

Kerb weight (unladen, but with oil, coolant and fuel for approximately 50 miles) ... 29 cwt.  
 Front/rear distribution of kerb weight ... 57/43  
 Weight laden as tested ... 32 1/2 cwt.



## DAIMLER V-8

**S**INCE the Daimler company was acquired by Jaguar over two years ago this is the first new model to be introduced. Ignoring minor details it is a Mark 2 Jaguar powered by the 2½-litre V-8 engine inherited from the sports two-seater Daimler SP 250. It is fitted with the Type 35 Borg-Warner automatic transmission, a lighter, more compact and more recent design than that used on automatic Jaguars; a manual gear box is not offered.

By combining well-tried and well-developed components in this way it has been possible to produce at a reasonable price a small Daimler which fills the gap left by the Conquest and Century models of some years ago. It is very smooth, quiet and comfortably sprung. The lines of the car are attractive, visibility is good and the interior trim and furnishings have an air of quality and good taste.

Measured performance figures surprised us; the turbine smoothness of the engine and the deceptive relationship between speed and engine r.p.m. with a torque converter transmission conspired to make acceleration feel less impressive than it really is. Nevertheless, although the power is available when needed, the Daimler has clearly been designed for less hurried motorists; low final drive gearing helps top gear performance but gives only 16.6 m.p.h./1,000 r.p.m. in top gear so that at high cruising speeds the Daimler lacks the effortless feeling that high gearing confers. Auto-

matic gearchanges which are barely perceptible in gentle driving become distinctly jerky at large throttle openings and when baulked by slow traffic or climbing very steep hills one feels the lack of a more readily available bottom gear. The combination of low gearing and automatic transmission makes it a fairly thirsty car, but fuel consumption is probably not a dominant consideration for buyers in this class.

It will be remembered that this short-stroke V-8 engine has a very stiff five-bearing crankshaft and a single camshaft mounted between the V of the two cylinder blocks which operates inclined valves in hemispherical combustion chambers through pushrods. It is not only very compact but also constructed largely of light alloys. Compared with the automatic 3.4 Jaguar Mk. 2 which we tested in August, 1961, the Daimler is 1½ cwt. lighter at the front and the front spring rates have been modified accordingly. Otherwise suspension follows the familiar pattern for this model, although telescopic Girling gas cell dampers are a recent innovation.

In standard form it is particularly well-equipped and instrumented but many further extras are available. Our test car had reclining front seats and power-assisted steering; the latter costs an additional £66 (with P.T.), but drivers who value really light and effortless control will probably think this money well spent.

### Performance

**T**HE V-8 engine with its two S.U. carburetters is a very easy starter, needing full choke only for a few seconds, half-choke for less than a mile and having little of the tendency to stall, which can be so irritating with automatic transmission. Perhaps because so much of it is made in light alloy it is mechanically noisy when cold, but as soon as the full running temperature has been reached it becomes very quiet and outstandingly smooth, a smoothness which continues without vibration periods right up to the red sector on the rev. counter (6,000-6,500 r.p.m.) and even slightly beyond it. At the creditable maximum speed of nearly 110 m.p.h. the needle was reading about 6,600 r.p.m., but there were no signs of distress from the valve gear.

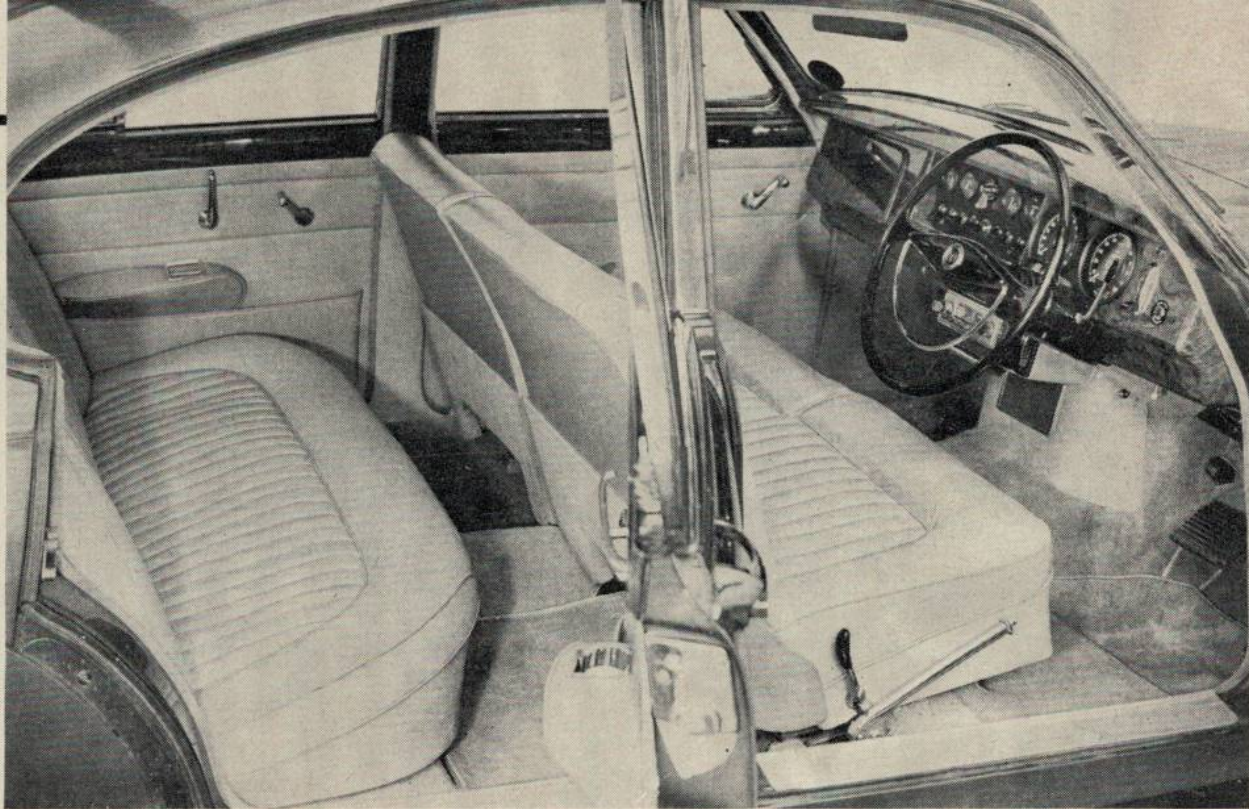
Some exhaust noise is audible when accelerating hard—by no means enough to be annoying or obtrusive, but enough to make one aware that the engine is turning over fast. At 16.6 m.p.h./1,000 r.p.m. the Daimler is a little undergeared in the interests of top-gear performance and exhibits a trace of fussiness when cruising on fast main roads in the 80-90 m.p.h. region. This effect would probably be more pronounced if it were not for the use of a Smiths viscous fan coupling which gives a near-positive drive up to about 2,500 r.p.m.; above this speed the silicone fluid has insufficient viscosity to transmit any further torque.

Acceleration from 0-50 m.p.h. in 9.6 sec. is good; 0-100 m.p.h. in 42.3 sec. is well into the sports-car class. The complete absence of engine harshness coupled with the fact that engine r.p.m. do not rise in proportion to car speed, but rather less rapidly than this whilst the torque converter is operating, deceive the occupants into thinking the acceleration leisurely,

### In Brief

Price (including power steering as tested)	£1,353 plus purchase tax
£282 8s. 9d. equals	£1,635 8s. 9d.
Price with manual steering	£1,568 19s. 7d. (including purchase tax).
Capacity	2,548 c.c.
Unladen kerb weight	29 cwt.
Acceleration:	
20-40 m.p.h. in "kick down"	3.9 sec.
0-50 m.p.h. through gears	9.6 sec.
Maximum speed	109.5 m.p.h.
Overall fuel consumption	16.4 m.p.g.
Touring fuel consumption	17.2 m.p.g.
Gearing:	16.6 m.p.h. in top gear at 1,000 r.p.m.

## DAIMLER V-8



To the right of the driver's seat is the handbrake; the smaller lever is for varying the rake of the seat squab. The automatic gearbox, although considerably smaller than most, occupies a good deal of the foot width.

although this is only true in the lower speed ranges when, as explained below, first gear may be unobtainable.

### Transmission

THE Borg-Warner automatic gearbox, which is standard on the Daimler V-8, comprises a hydraulic torque converter in series with a three-speed epicyclic gearbox which changes gear automatically when the steering column selector lever is in the D (Drive) position; the speed at which it changes up varies with accelerator opening. At small throttle openings the changes are almost imperceptible and occur at low speed, but if the full accelerator travel is used the first to second shift is postponed to 40 m.p.h. and still remains smooth, second to top occurs at nearly 65 m.p.h. and is accompanied by a rather jerky forward surge which is also noticeable at lower speeds.

From about 20 m.p.h. upwards full throttle can be used in top without causing a downward change; if, however, the pedal is depressed still further against a spring, the "kick-down" switch is operated and second gear can be recalled at any speed up to about 60 m.p.h. Again this is not a very smooth operation and better results can be obtained by anticipating the need for a lower gear whilst approaching an obstruction or corner and moving the selector to L (lock-up) on the overrun when the intermediate ratio is engaged very smoothly. If one starts from rest in L, first gear is held indefinitely, but once on the move and in a higher gear the 40 m.p.h. bottom gear cannot be regained unless the speed drops below about 5-6 m.p.h. This can be rather annoying in traffic hold-ups when acceleration from very low speeds in second is not rapid; on occasions we were reduced to very low speeds in second by steep hills which could have been climbed fast in bottom had it been easily obtainable.

The gearbox is very quiet and manoeuvring in confined spaces can be done smoothly and easily. A restart on the 1 in 4 test hill was accomplished with great ease, but on the 1 in 3 hill the car displayed peculiar symptoms. The drive came in at much higher r.p.m. than normal and in short, sudden surges, causing bursts of wheelspin. Since, on level ground, full engine power could be applied against the footbrake without any such effect it appeared that the torque converter was upset by the gradient.

### Running Costs

FOR the whole of our 2,300-mile test the Daimler averaged 16.4 m.p.g. on premium grade fuel. During this time it was perhaps driven rather harder than an owner would drive it but it is clear that, in the choice of gearing and transmission, factors other than economy have been given priority. A more detailed analysis in different conditions gives the following figures.

Easy driving on quiet main roads, cruising at about 60 m.p.h.	20 m.p.g.
Hard driving on fast but busy arterial road, 80-90 m.p.h.—cruising, max. acceleration for overtaking, 50 m.p.h. average	16.2 m.p.g.

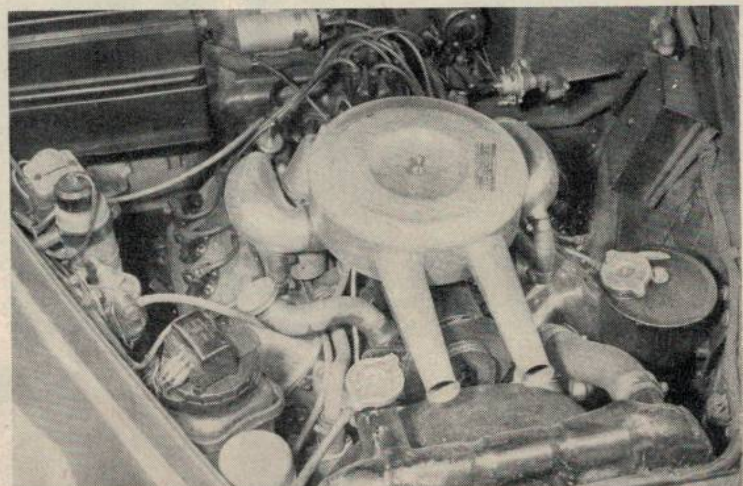
Fast driving on very hilly minor roads, 38 m.p.h. average	15.6 m.p.g.
4 miles from cold in London rush-hour traffic, 13 m.p.h. average	11.2 m.p.g.

Maintenance demands are not heavy. The gearbox oil level should be checked every 1,250 miles and topped up if necessary, but periodic draining is not required. Eight chassis points should be greased at 2,500-mile intervals and another two every 5,000 miles. The makers do not set fixed charges for servicing which may, therefore, vary from dealer to dealer, but we estimate that it will cost approximately £2½-£3 per 1,000 miles excluding the cost of oil and other materials. It is unlikely that many Daimler owners indulge in "do it yourself" maintenance, but for the record the S.U. carburettors, battery, washer bottle, distributor and brake fluid reservoir are all easily accessible; there is a facia warning light to indicate low brake fluid level. The fuel pump is less accessible; it is mounted at the side of the boot behind a trim panel which must first be removed.

### Handling

POWER-ASSISTED steering is an optional extra on the Daimler and our test car was so equipped; although the car weighs 29 cwt. the effort was thus made considerably less than on most small family saloons. For winding British roads we thought it unnecessarily low geared, 1½ turns for a 50-ft. diameter circle at walking pace requiring a good deal of vigorous arm movement and losing some speed of response in emergencies. For very high speeds on straight main roads it is, of course, entirely suitable and the car is directionally stable even in fairly strong winds. The steering has little feel, but it takes only a short time to get used to its sensitive initial response and to find that the car can be placed accurately on bends.

Although the light alloy V-8 engine fills the width of the bonnet space, examination shows that practically all the components and accessories which are likely to need attention are very accessible. The small tank on the right is a reservoir for the hydraulic power-steering system.



The Daimler is an understeering car with no vices at all if it is driven sensibly. On dry roads cornering speeds are restricted more by low-g geared steering and appreciable roll than by any inherent limitations in roadholding, which is extremely good on bad surfaces as well as good ones; to correct any false impression that this statement may give, we should say that roll is probably less than average for this class of car, but above average handling tempts one to drive faster. On wet roads it is advisable to avoid full power kick-down changes to second when cornering hard, which may break the rear wheels away, but otherwise no special care is necessary. Dunlop Road Speed tyres are standard and only very forceful driving causes any squeal; they have the incidental advantage that both maximum speed and fast motorway cruising are permissible with the standard pressures.

## Brakes

THE Jaguar company were pioneer users of Dunlop disc brakes with which this Daimler is equipped all round; it is difficult to find anything but praise for their operation. They are light yet very sensitive and progressive, and give enormous confidence when used hard from high speeds. A 1g stop was made from 30 m.p.h. without premature wheel locking at either end. A descent of the standard half-mile test hill showed us no signs of fade or increasing pedal pressure and twenty  $\frac{1}{2}$ g stops from 70 m.p.h. at minute intervals demanded an increase of only 5 lb. in pedal force, there being no accompanying trace of roughness or pulling to one side.

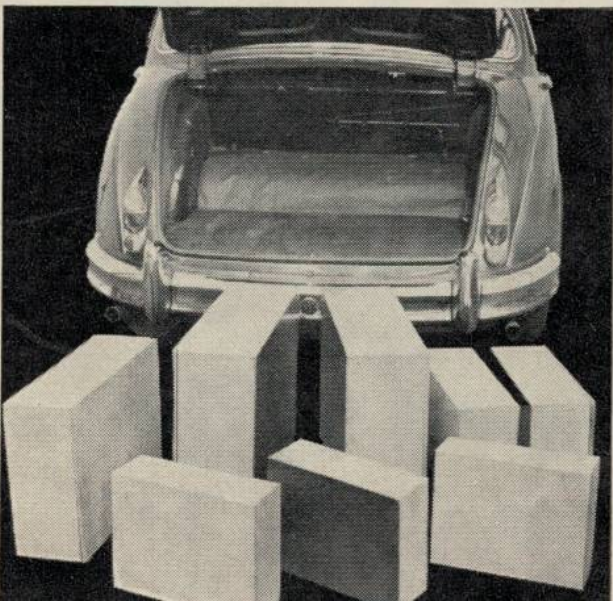
The handbrake is of the self-adjusting type and much more powerful than some disc handbrakes; it held the car easily on a 1-in-4 gradient, just managed 1 in 3 with a very heavy pull on the lever, and locked the rear wheels from 30 m.p.h. to give a retardation of 0.36g.

Two runs through a shallow water splash at 30 m.p.h. decreased brake effectiveness appreciably but only momentarily. On wet roads initial application sometimes shows a diminished response and some pulling to the side, but this was transient.

## Comfort and Control

FIRM damping and Road Speed tyres contribute to some degree of hardness in the low-speed ride, but this is not sufficient to cause any physical discomfort, in fact it is heard

The Daimler does not have an exaggerated boot but swallows more luggage than would be expected. These imitation suitcases have a total volume of 8.4 cu. ft. and measure (in inches) 24 x 18 x 8, 21 x 15 x 7, 17 $\frac{1}{2}$  x 13 x 6 and 14 x 11 x 5.



rather than felt. At higher speeds, the car is very comfortable in both front and rear seats and travels over broken surfaces and motorway subsidences with a creditable lack of disturbance and rapidly damped recovery.

The driving position is ideal for those who like to sit well away from the steering wheel. With the telescopic column pushed right in and the seat well back a driver of average height finds himself at full arm's length from an ideally positioned wheel. For very tall people, however (over 6 ft.), the wheel is rather low and even in its rearmost position the knees must be splayed apart. Such drivers, also, are rather conscious of the large mirror which gives a particularly good rearward view but comes well into the line of forward sight. In other respects visibility is very good, the windscreen pillars being slender enough to leave only small areas of complete (two-eyed) blindness and the short bonnet sloping away rapidly in front. The sealed beam headlights were adequate but not really up to the full performance.

The front seats roused little enthusiasm; the cushions were

Different insignia on the boot lid, a fluted number plate cowl and "D" emblems on the hub covers distinguish this view of the Daimler from a Mk. 2 Jaguar.



found to be too horizontal to give much support under the knees and have a rather hard section at the rear. Moreover the adjustable reclining backs are not shaped to give side support, a fact of which the driver is acutely aware although the front passenger finds adequate support by using both the door armrest and the folding one in the seat. On the driver's side these armrests are of no great value, the one on the door impeding access to the handbrake and the folding one restricting elbow movement. The rear seats proved very comfortable except for extremely tall passengers.

The heating system appears to be entirely adequate, with a considerable reserve for colder weather than we actually experienced. The fresh air supply can be increased by opening a vent on the scuttle and at low speeds a reasonably quiet two-speed fan maintains the flow. Some rear passengers complained of cold feet, but there were no obvious draughts. At high speeds the front quarter lights caused a slight hiss when closed and considerable roar when open—better ventilation with much less noise was obtained by opening the rear quarter lights.

## Fittings and Furniture

INTERIOR trim is in the traditional style with leather seats, a good deal of tasteful and subdued polished woodwork and clearly marked circular black dials for all the full set of instruments. A row of tumbler switches along the central panel is clearly labelled and well illuminated at night, but to avoid distraction from the road their positions need to be memorized. The gear indicator is also illuminated, quite brightly in daylight and less so when the sidelamps are switched on; small red pips on the wings show that the latter are alight.

Two-speed windscreen wipers are provided, but slightly heavier blade loading might be an advantage—in gale force cross winds we found them lifting off the screen altogether. A headlamp flasher is a very useful fitting and its operation, by squeezing the direction indicator lever towards the rim of the wheel, proved most convenient. A windscreen washer and cigarette lighter are standard fittings and there are map pockets in each door, a map shelf between the instrument panel and the radio console, and a cubby hole with a lockable lid in the fascia. Unless a spare key is left permanently in this, there is no way of opening it except by putting the finger nails round the overlapping edge.

# DAIMLER V-8

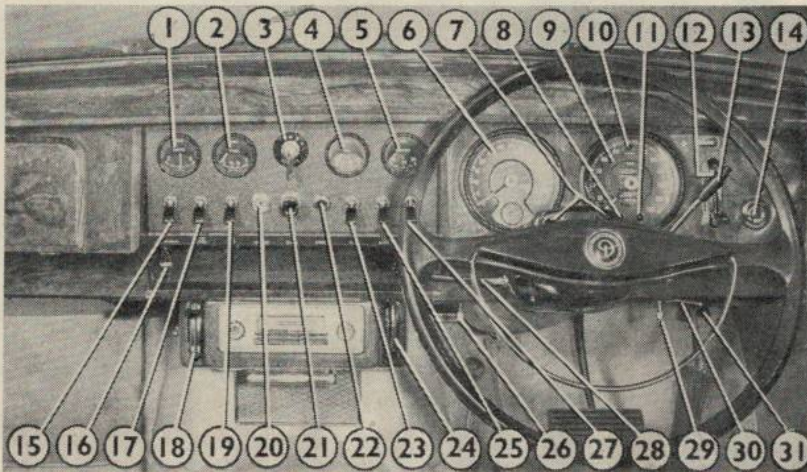


## Coachwork and Equipment

Starting handle .. .. None  
 Battery mounting .. .. Offside under bonnet  
 Jack .. .. Screw pillar type  
 Jacking points: Two each side adjacent to wheel arches.  
 Standard tool kit: Adjustable spanner, pliers, screwdriver, box spanner and tommy bar, 4 o.e. spanners, tyre pressure gauge, feeler gauge, distributor screwdriver, valve extractor, grease gun, wheelbrace, bleeder tube and jar, battery screwdriver.  
 Exterior lights: 2 headlamps, 2 foglamps, 2 sidelamps, 2 tail lights, 2 stop lights, reversing light, number plate lamp.  
 Number of electrical fuses .. .. 2  
 Direction indicators .. .. Self-cancelling flashers  
 Windscreen wipers: Two-speed, self-parking, electrical.

Windscreens washers .. .. Electric  
 Sun visors .. .. 2  
 Instruments: Speedometer, with total and trip distance recorders, rev. counter, with clock, ammeter, fuel, oil pressure and water temperature gauges.  
 Warning lights: Ignition, headlamp main beam, fuel level, direction indicators, mixture control, brake fluid level/handbrake.  
 Locks:  
 With ignition key .. .. Front door locks  
 With other keys .. .. Luggage boot and fascia locker  
 Glove lockers .. .. 1, with locking lid, on fascia  
 Map pockets: 1 in each door and 1 below instrument panel.  
 Parcel shelves .. .. 1 behind rear seat  
 Ashtrays: 1 below radio console and 1 in each rear door armrest.

Cigar lighters .. .. 1 in fascia  
 Interior lights: 1 each side on door pillars, 1 above rear window, map light, cubby light.  
 Interior heater: Standard fresh air, heating and demisting system with two-speed fan.  
 Car radio: Optional extra, various Radiomobile models.  
 Extras available: Wire wheels, whitewall tyres, power steering, electrically heated rear window, laminated windscreen, radio, safety harness, Pow-Lok differential, reclining front seats.  
 Upholstery material: Leather on seating surfaces, P.V.C. for door panels, etc.  
 Floor covering .. .. Carpet with felt underlay  
 Exterior colours standardized .. .. 12 (others at extra cost)  
 Alternative body styles .. .. None



## Key to photograph

1. Ammeter. 2. Fuel gauge. 3. Main lighting switch. 4. Oil pressure gauge. 5. Water thermometer. 6. Rev counter and electric clock. 7. Gear position indicator and flasher warning lights. 8. Ignition warning light. 9. Speedometer. 10. Main beam warning light. 11. Fuel warning light. 12. Mixture control and warning light. 13. Gear selector. 14. Hydraulic fluid level/handbrake warning light. 15. Interior lights. 16. Scuttle air vent control. 17. Panel light. 18. Heater temperature control. 19. Fan. 20. Ignition. 21. Cigarette lighter. 22. Starter. 23. Map light. 24. Heater air control. 25. Windscreen wipers. 26. Clock re-setting. 27. Windscreen washer. 28. Direction indicators and headlamp flasher. 29. Speedometer trip. 30. Bonnet release. 31. Aerial winder.

## Specification

### ENGINE

Cylinders .. .. V8  
 Bore .. .. 76.2 mm.  
 Stroke .. .. 69.85 mm.  
 Cubic capacity .. .. 2,548 c.c.  
 Piston area .. .. 50.2 sq. in.  
 Valves .. .. Overhead (pushrods)  
 Compression ratio .. .. 8.2/1  
 Carburettor .. .. Twin S.U. type HD6  
 Fuel pump .. .. S.U. electric  
 Ignition timing control .. .. Centrifugal and vacuum  
 Oil filter .. .. Tecalemit full flow  
 Maximum power (gross) .. .. 140 b.h.p. at 5,800 r.p.m.  
 Maximum torque (gross) .. .. 155 lb. ft. at 3,600 r.p.m.

Piston speed at maximum b.h.p. 2,660 ft./min.

### TRANSMISSION

Borg-Warner model 35 automatic transmission with torque converter (giving torque multiplication up to factor of 2) and three speed epicyclic gearbox.  
 Top gear .. .. 4.55  
 2nd gear .. .. 6.60  
 1st gear .. .. 10.87  
 Reverse .. .. 9.51  
 Propeller shaft: Hardy Spicer divided shaft with centre bearing  
 Final drive .. .. Hypoid bevel  
 Top gear m.p.h. at 1,000 r.p.m. .. 16.6  
 Top gear m.p.h. at 1,000 ft./min. piston speed 36.3

### CHASSIS

Brakes .. .. Dunlop discs all round  
 Brake dimensions: Front, 11 in. discs; rear, 11 1/2 in. Friction areas: 31.8 sq. in. of pad area working on 495 sq. in. rubbed area of discs.  
 Suspension:  
 Front: Independent by transverse wishbones and coil springs with anti-roll bar.  
 Rear: Live axle suspended on cantilever leaf springs and located by torque arm and Panhard rod.  
 Shock absorbers:  
 Front and rear: Girling gas cell telescopic  
 Steering gear: Burman recirculating ball (power assistance as optional extra).  
 Tyres .. .. Dunlop RS5 6.40-15 tubed

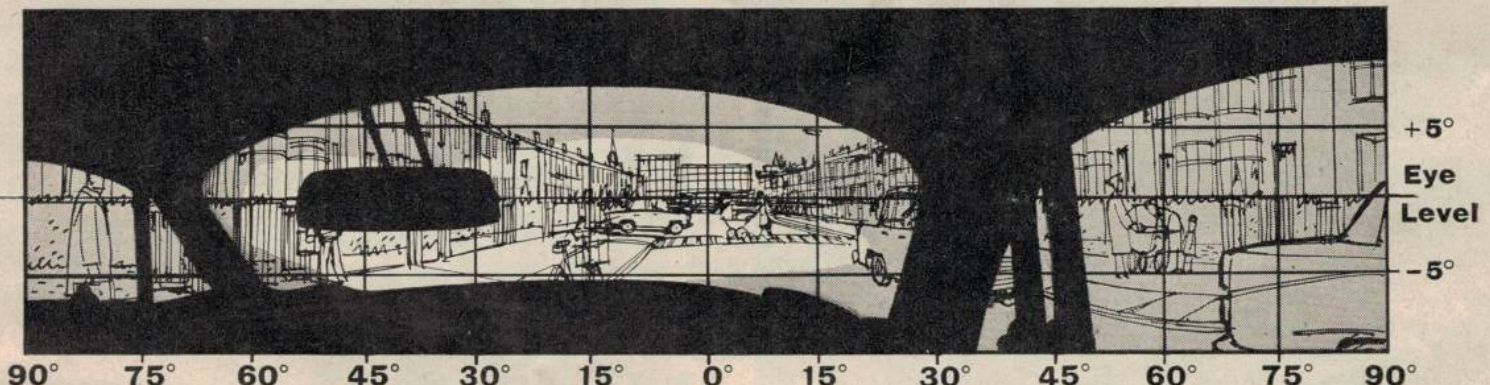
## Maintenance

Sump: 12 pints, S.A.E. 20 (winter), 30 (summer), 40 (tropical).  
 Automatic transmission: 14 1/2 pints, automatic transmission fluid (no draining necessary).  
 Rear axle .. .. 3 1/2 pints, S.A.E. 90 E.P.  
 Steering gear lubricant: Manual, S.A.E. 140 E.P.; Power, Automatic transmission fluid.  
 Cooling system capacity .. 24 pints (2 drain taps)  
 Chassis lubrication: By grease gun every 2,500 miles to 8 points and every 5,000 miles to 2 points.

Ignition timing .. .. 10° b.t.d.c.  
 Contact breaker gap .. .. .014-.016 in.  
 Sparking plug type .. .. Champion N7  
 Sparking plug gap .. .. .025 in.  
 Valve timing: Inlet opens 13° b.t.d.c. and closes 65° a.b.d.c. Exhaust opens 55° b.b.d.c. and closes 23° a.t.d.c.  
 Tappet clearances (cold) .. .. Inlet .011 in. Exhaust .014 in.  
 Front wheel toe-in .. .. Parallel to 1/8 in. toe-in

Camber angle .. .. 1/4° x 1/4°  
 Castor angle .. .. Zero ± 1/4°  
 Steering swivel pin inclination .. .. 7 1/2°  
 Tyre pressures:  
 Normal { Front 28 lb. For town use { Front 25 lb.  
 Rear 24 lb. or bad roads { Rear 21 lb.  
 (For full load increase rear pressures by 4 lb.)  
 Brake fluid .. .. To specification SAE 70 R3  
 Battery type and capacity .. 12 volt, 51 amp.-hour

## Visibility 180° from the Driving seat. Shaded areas show one-eye visibility.



## AN EXPLANATION OF SPECIAL TERMS IN THE DATA PANEL OF "THE MOTOR" ROAD TESTS

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**T**HE following notes may assist readers of these reprints who are unfamiliar with some of the special terms regularly used :

**Kerb weight :** The weight of the car ready to be tested with oil, water, tools and fuel for approximately 50 miles.

**Laden weight :** Kerb weight plus driver, one passenger and standard test apparatus.

**Tapley figures :** Acceleration and hill-climbing ability of the car measured by the instrument of this name, which consists of a damped pendulum. Gradients climbable in top gear equivalent to the Tapley figure recorded are set out separately.

**Braking figures :** With the friction coefficient between tyres and road at the normally accepted maximum coefficient of unity the rate of retardation on the car cannot exceed 32.2 ft. per second<sup>2</sup>—the acceleration of gravity : this would be equivalent to stopping the car in 30.1 ft. from 30 m.p.h. The recorded figures are therefore set out as a percentage of gravity, with the equivalent stopping distances.

**Maximum speed :** Timed by two observers on a level road in both directions with sufficient run-in (between 1 and 3 miles) to ensure that the car has reached its terminal velocity.

**Acceleration :** Top-gear accelerations are taken from rolling starts—i.e., when timing between 30 and 50 m.p.h. full throttle has been given at well below 30 m.p.h. This applies to other acceleration times in a fixed gear.

**Standing start acceleration times :** Are the best that can be recorded by the testers using the fastest possible rather than the smoothest getaway from rest, and upward gear changes on full throttle when this is practicable.

**Fuel consumption :** The steady speed figures are the average of runs in opposing directions consuming a measured 1/10 gallon. The overall figure is based on a mixture of town and country driving and reflects the natural pace of the car so that if an unchanged engine and transmission system were transferred from a car having moderate road holding to one outstanding in these characteristics the overall consumption would tend to suffer.

**Touring fuel consumption :** Based, empirically, on the m.p.g. at a steady speed midway between 30 m.p.h. and the maximum, less 5% to allow for acceleration, this figure will be found close to that obtained by many private owners in the course of normal week to week motoring.

**Under and oversteer :** An understeering car will tend to be naturally straight-running and be stable in cross winds, but will require unexpected steering lock to carry it round a corner of given radius. An oversteering car corners willingly but may wander on the straight and is often sensitive to cross winds.

**Equipment :** This is correct as at the time of road test, and should be checked if a purchase is contemplated at some substantially later date.