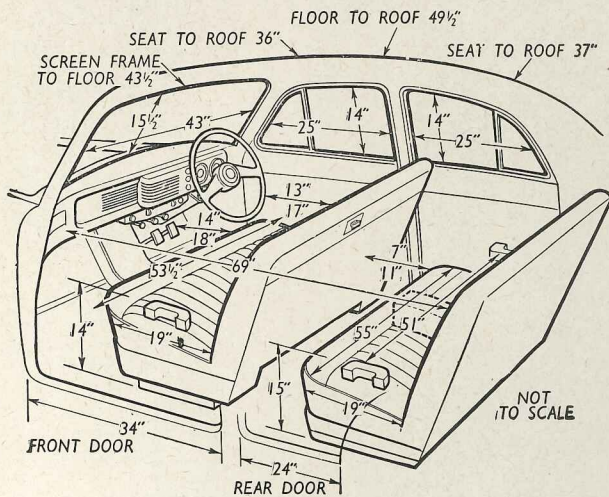
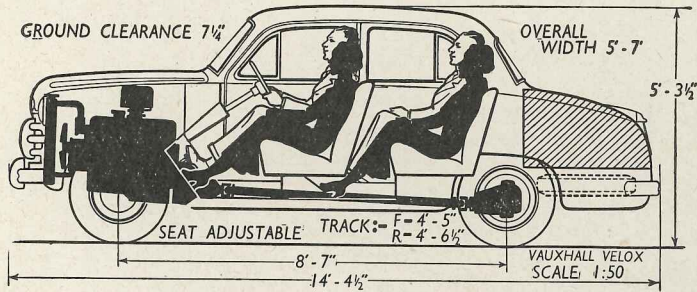


The Motor Road Test No. 9/54

Make : Vauxhall **Type :** Velox (High-compression engine)
Makers : Vauxhall Motors Ltd., Luton, Beds.



WEIGHT

Unladen kerb weight 22 1/2 cwt.
 Front/rear weight distribution 57/43
 Weight laden as tested 26 cwt.

Test Data

CONDITIONS: Cold, damp weather with light cross wind. Smooth, wet tarmac surface. Premium-grade pump fuel.

INSTRUMENTS

Speedometer at 30 m.p.h. 1% fast
 Speedometer at 60 m.p.h. 7% fast
 Distance recorder 3% fast

MAXIMUM SPEEDS

Flying Quarter Mile
 Mean of four opposite runs 82.0 m.p.h.
 Best time equals 82.6 m.p.h.

Speed in Gears

Max. speed in 2nd gear 61 m.p.h.
 Max. speed in 1st gear 33 m.p.h.

FUEL CONSUMPTION

38.0 m.p.g. at constant 30 m.p.h.
 36.0 m.p.g. at constant 43 m.p.h.
 31.0 m.p.g. at constant 50 m.p.h.
 27.0 m.p.g. at constant 60 m.p.h.
 23.5 m.p.g. at constant 70 m.p.h.
 Overall consumption for 1183 miles, 47.3 gallons,
 = 25.0 m.p.g.
 Fuel tank capacity, 11 gallons.

ACCELERATION TIMES Through Gears

0-30 m.p.h. 5.6 sec.
 0-40 m.p.h. 9.3 sec.
 0-50 m.p.h. 13.6 sec.
 0-60 m.p.h. 20.4 sec.
 0-70 m.p.h. 30.6 sec.
 Standing Quarter Mile.. .. . 21.9 sec.

ACCELERATION TIMES on Two Upper Ratios

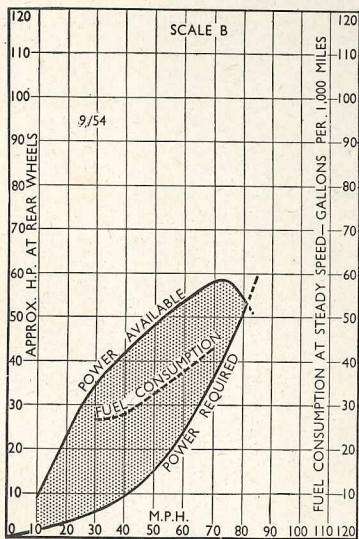
	Top	2nd
10-30 m.p.h.	8.3 sec.	5.2 sec.
20-40 m.p.h.	8.2 sec.	5.6 sec.
30-50 m.p.h.	9.9 sec.	7.4 sec.
40-60 m.p.h.	12.4 sec.	—
50-70 m.p.h.	16.4 sec.	—

HILL CLIMBING (At steady speeds)

Max. top gear speed on 1 in 20 69 m.p.h.
 Max. top gear speed on 1 in 15 64 m.p.h.
 Max. top gear speed on 1 in 10 53 m.p.h.
 Max. gradient on top gear 1 in 7.9 (Tapley 280 lb./ton)
 Max. gradient on 2nd gear 1 in 5.1 (Tapley 430 lb./ton)

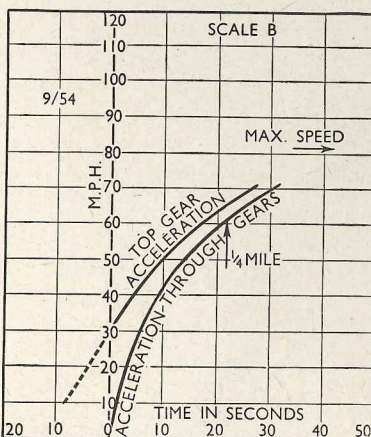
BRAKES at 30 m.p.h. (damp surface)

0.87 g retardation (= 34 1/2 ft. stopping distance) with 160 lb. pedal pressure.
 0.67 g retardation (= 45 ft. stopping distance) with 100 lb. pedal pressure.
 0.33 g retardation (= 91 ft. stopping distance) with 50 lb. pedal pressure.
 0.15 g retardation (= 200 ft. stopping distance) with 25 lb. pedal pressure.



Drag at 10 m.p.h. 46 lb.
 Drag at 60 m.p.h. 146 lb.

Specific fuel consumption when cruising at 80% of maximum speed (i.e., 65.6 m.p.h.) on level road, based on power delivered to rear wheels 0.71 pints/b.h.p./hr.



Maintenance

Sump: 8 pints (plus 1 pint in filter), S.A.E.20 engine oil. **Gearbox:** 2/3 pint, S.A.E. 90 gear oil. **Rear Axle:** 2 1/2 pints, S.A.E. 90 hypoid gear oil. **Steering gear:** S.A.E. 90 gear oil. **Radiator:** 17 1/2 pints plus one pint extra if heater fitted. (2 drain taps). **Chassis lubrication:** By oil gun every 1,000 miles to 17 points. **Ignition timing** (for Premium-grade fuel and clean engine): 6°-8° B.T.D.C., static. **Spark plug gap:** 0.028-0.030 in. **Contact breaker gap:** 0.014-0.016 in. **Valve timing:** Inlet opens 13° B.T.D.C.; Inlet closes 39° A.B.D.C.; Exhaust opens 45° B.B.D.C.; Exhaust closes 7° A.T.D.C. **Tappet clearances:** (Hot); Inlet and Exhaust, 0.013 in. **Front wheel toe-in:** 3/32-5/32 in. at tyres. **Camber angle:** 1°-2° unladen. **Castor angle:** 1°-1 1/2° unladen. **Tyre pressures:** Front and rear, 24 lb. **Brake fluid:** Lockheed (S.A.E. Spec. 70.R2). **Battery:** 12-volt, 53 amp.-hr. **Lamp bulbs:** 12-volt. **Headlamps:** 42/36 watt. **Side and number plate lamps:** 6 watt. **Tail/stop lamps:** 6/18 watt.

The VAUXHALL Velox (High Compression)



EFFORTLESS running is the essential characteristic of the Vauxhall Velox, which we have recently subjected to a 1,200-mile test. Now that high-quality petrols are available in Britain as well as in many other countries, the Vauxhall Velox is offered with the choice of either a 6.8/1 compression ratio permitting the use of low-grade fuel, or a ratio of around 7½/1 which calls for the use of premium-grade petrol but provides advantages in respect of performance and fuel economy. This latter alternative was in use on the model just tested, and significant all-round gains over the performance figures recorded in our previous Road Test Report on a Vauxhall Velox (June 11, 1952) were found to result.

In testing the Velox, it is a constant difficulty to recall how low down in the price scale this model comes. Only one other British car with a six-cylinder engine is cheaper at the moment of writing, and that by less than £5 even when purchase tax is included in the calculation. Inevitably, as a result of its roominess and its performance, the Velox was compared mentally with other, higher-priced models.

A glance at the performance data on the opposite page is enough to reveal that this car has a very good turn of speed, and outstandingly good acceleration. It is not, however, as a high performance model that the Velox makes its strongest appeal. Extreme docility, the willingness to potter through traffic or up steep hills in top gear,

HIGH BONNET, full-width bodywork, liberal application of decorative chromium, and the fashionable use of press-button door handles combine to make the roomy Velox an imposing-looking car.

A Low-priced Six-cylinder Car with its Fuel Economy and Effortless Performance Enhanced by an Optional High-compression Engine

appears to result from the raised compression ratio.

Built in England, in a factory which is controlled by one of the largest American car manufacturing groups (the General Motors Corporation), the Vauxhall Velox is quite a large car by European standards, its exterior shape and many of its interior fittings having evidently been influenced by American automobile practice of the post-war period. There is not the great overall length or width of the typical American car, but a modest scaling down in size leaves sufficient internal breadth to make this model a reasonable six-seater, with very comfortable amounts of head-room, legroom and luggage capacity. Comfort, for rear-seat passengers just as much as for the driver, has been adjudged more important than extremes of high performance. Although set rather too low for good forward vision, the rear seat provides very comfortable travel indeed.

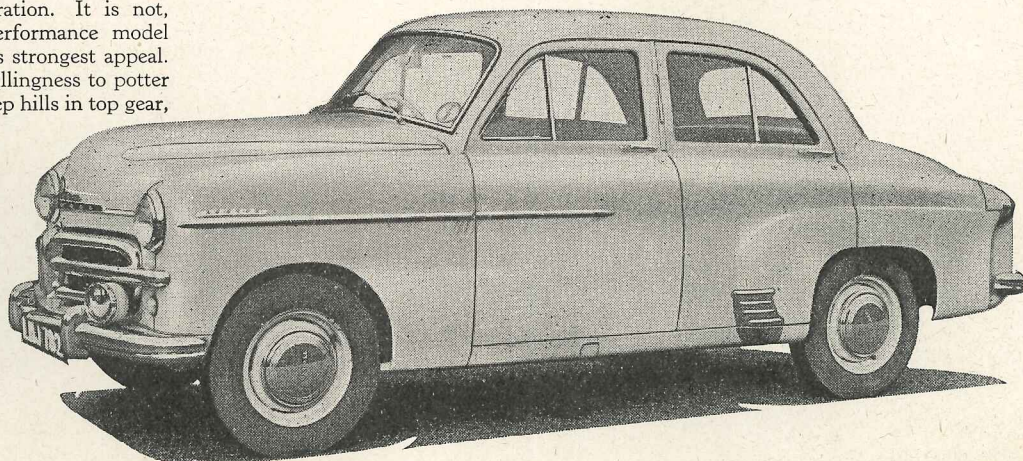
Essentially a top gear car, this "six" has a degree of engine flexibility which four-cylinder power units can never quite match. With everything in proper tune, the car can be checked to a speed well below 10 m.p.h. in top gear, and only the slightest skill is needed to secure smooth as well as very rapid acceleration from this pace. The rush of acceleration can be continued right up to 70 m.p.h. before the onward thrust begins to diminish very perceptibly, rather under 35 seconds sufficing for top gear acceleration from 10 to 70 m.p.h.

On hills, the availability of good engine torque over a wide range of speeds is greatly appreciated. The temptation to "rush" short, sharp acclivities hardly exists, a little extra throttle opening allowing this car to maintain speed on surprising gradients. At one end of the scale, hills encountered on the open road have little effect on the cruising speed, over 50 m.p.h. being maintainable even on a 1 in 10 (10%) grade: at the opposite extreme, the

In Brief

Price	£535, plus purchase tax
	£224 0s. 10d., equals £759 0s. 10d.
Capacity	... .. 2,262 c.c.
Unladen kerb weight	... .. 22½ cwt.
Fuel consumption	... .. 25.0 m.p.g.
Maximum speed	... .. 82.0 m.p.h.
Maximum speed on 1 in 20 gradient	... .. 69 m.p.h.
Maximum top gear gradient	1 in 7.9
Acceleration:	
10-30 m.p.h. in top	... .. 8.3 sec.
0-50 m.p.h. through gears	13.6 sec.
Gearing: 17.9 m.p.h. in top at 1,000 r.p.m.; 89.5 m.p.h. at 2,500 ft. per min. piston speed.	

a reserve of power always in hand in case sudden acceleration is wanted, these are the qualities with which many Velox owners are already well pleased. The high-compression engine accentuates existing virtues, providing better acceleration and hill climbing yet also increasing mileage per gallon of fuel, and incidentally it gives a slight increase in maximum speed. Apart from the fact that premium-grade fuel must be used, no disadvantage whatever





The Vauxhall Velox

over 80 m.p.h. Located to the right of the driving seat, the handbrake is both convenient and effective.

Driving vision has suffered to some extent from styling considerations, the scuttle and bonnet being rather higher in relation to the driving seat than is nowadays usual, and the windscreen pillars tending to be rather wide. A central division in the bonnet top panel provides a sighting line, however, and drivers soon become happy to take this relatively wide car through heavy traffic or narrow British lanes. Since this model was first announced legibility of the instruments has been vastly improved, but the push-pull lighting switches continue to take the form of semi-concealed "drawers" instead of having the prominence appropriate to vital controls.

Velox will slog uncomplainingly up long hills in top gear at below 20 m.p.h. when held up behind slow traffic. To cite a specific example, Titsey Hill in Surrey was surmounted at well over 20 m.p.h. in top gear, three-up and with an approach speed of around 35 m.p.h. only, this well-known test gradient of some considerable length climbing 300 feet in approximately 850 yards and having a reported steepest gradient of 1 in 6 (16½%).

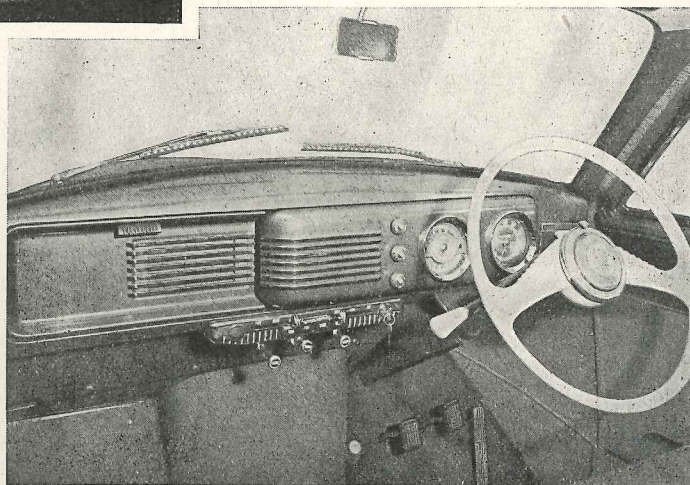
Imperceptible by feel or hearing inside the car at tick-over, the engine is quiet under load at moderate speeds, and showed no sign of pinking on any of the brands of premium-grade fuel sampled during our test. Only above 75 m.p.h. could it be felt that the top gear ratio chosen to provide good acceleration was allowing the engine to "rev." somewhat rapidly, the last few m.p.h. towards the timed maximum of 82 m.p.h. producing body drumming of which there was no trace at lower speeds. Also, at the car's ultimate maximum speed, top gear was apt to jump out of engagement.

Universal Second

Use of a three-speed gearbox emphasizes the fact that, although this is an exceptionally lively car, it is not intended primarily to appeal to sporting tastes. Engaged with the aid of effective synchromesh mechanism, 2nd gear is quiet without being altogether inaudible at the higher speeds, and in this ratio the car will pull away from the merest crawl and will climb almost any hill—first gear is, apart from normal use when starting from rest, an emergency ratio, on which hill climbing abilities are limited solely by the rear wheel adhesion available with a typically modern chassis carrying the heaviest components well towards the front.

Complete freedom from pitching on rough roads has been secured by suitable matching of the front and rear springs on the Velox, and the suspension system provides a good all-round standard of riding comfort. At one extreme, badly potholed roads such as are common in some parts of the world do not jolt the car unduly; on

SIX PEOPLE can be carried in the Velox, on two comfortable bench-type seats, side armrests and a folding central armrest being provided at the back of the car only. Points of interest for the driver are the excellent right-hand parking brake, steering-column control for a 3-speed gearbox, and instruments of improved legibility.



the other hand, undulations in main-road surfaces do not make the fast moving car rise and fall to an exaggerated extent.

There is an impression that this car rolls somewhat freely on corners, but observation from another vehicle shows that roll angles are not in fact any greater than is usual on an essentially "touring" type of car. A moderate degree of roll occurring before the anti-roll torsion bar takes full effect is, apparently, made more evident by the fact that a bench-type front seat with comfortably firm upholstery has no shaping or arm-rests to provide lateral support. Stable on the straight, the Velox is very light to control, the steering being shock free, yet adequately precise despite a certain measure of flexibility in the mechanism; there are many, however, who would willingly accept rather heavier steering in order to secure quicker response, the gearing in use requiring four turns of wheel from lock to lock.

Responding to normally gentle pressures when a modest degree of retardation is called for, the hydraulic brakes do not seem to have as much self-servo action as is nowadays common, and sharp stops call for unusually firm pressure on the brake pedal. In compensation for this, there is substantially greater resistance to "fade" than might be expected from the use of 9-in. brakes on a six-seater car capable of

The variable-brightness instrument lighting is excellent, and there is a good interior light which may be switched on separately when first entering the parked car at night.

Conventional winding windows are not used; lift-up windows which are counter-balanced and lock with the doors save space and so help to make extra elbow-width available for three-abreast seating. These windows work easily, but do not drop completely into the doors; hinged ventilating panels are also provided on the front windows. On the car submitted for test, the "optional extra" fresh-air heating and ventilating system was installed, and proved very useful indeed, an all too unusual point being that appreciable warmth reached the rear compartment. Although no provision exists for abnormal requirements such as concentrating extreme amounts of heat on the windscreen in icing weather conditions, this heater is simpler to control than some, with merely a fan switch, air intake shutter, and hot-water tap.

Door-locking arrangements are unusual, in that the car can only be locked by setting the internal catches and slamming the doors. The door key will open either front door, a convenient point, but it is all too simple for the absent-minded to lock up the car with the key still in the ignition. A distinctive key for the rear luggage locker

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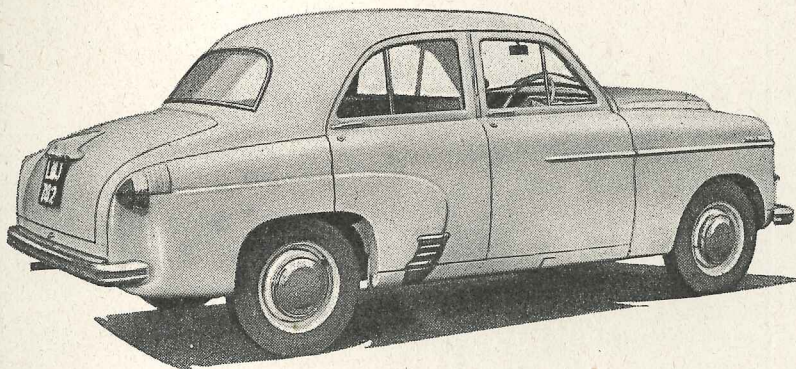
provides security for baggage when the car is left open in a public garage. An almost unique Vauxhall feature is mechanical drive by flexible shaft from the engine for the twin-bladed self-parking wind-screen wipers: ample power to cope with mud or snow is available, but above 60 m.p.h. the wipers "flap" rather violently.

Engine Accessibility

Since we last tested the Velox, a side-hinged bonnet has been replaced by the currently fashionable rear-hinged layout, with a simple catch concealed in the radiator air-intake grille. Springs support the weight of the bonnet when it is opened, and access to the radiator filler, overhead valvegear and carburetter is easy: the oil

on level road, all these figures being, of course, corrected for a modest degree of exaggeration by the car's distance recorder.

Over big mileages, different drivers get equally varied results from cars of the same type, and our overall fuel-consumption figure of 25 m.p.g. for more than 1,000 miles covers very mixed conditions. A fast 500-odd-mile week-end visit to Wales gave an average of 23.1 m.p.g., and another 350 brisk miles were run with a consumption of 24.2 m.p.g. A second week-end, during which little use was made of the gearbox and the speed was generally kept below 50 m.p.h., saw some 300 miles of hilly Sussex, Surrey and Hampshire roads covered at 30.4 m.p.g. In either hard or gentle driving, the Velox is commendably economical of petrol for a car of such roominess and performance, the high-compression model showing an average improvement of 4% over the mileage-per-



VISIBLE from almost any angle, tail lamps set at the extreme rear corners of the body are commendable features of current Vauxhall models.

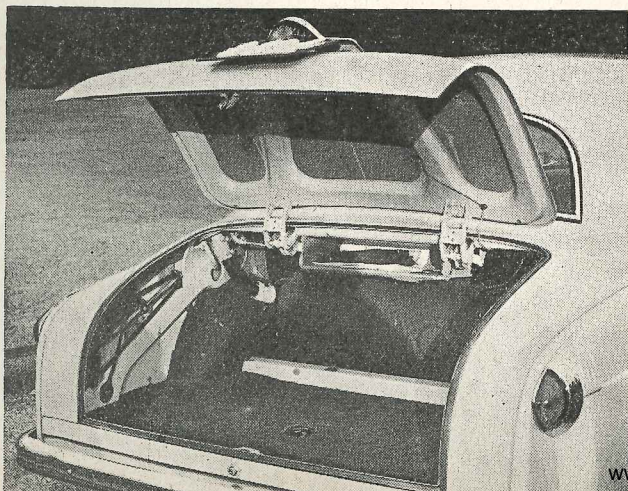
dip-stick, fuel pump and ignition contact-breaker unit are less accessible, being alongside the engine, where they are rather overshadowed by air ducts to the car interior heater.

Large in its capacity for passengers and luggage, and rapid in its acceleration over a very considerable speed range, the Vauxhall Velox might reasonably be expected to burn a considerable amount of petrol: in fact, it can match the fuel economy of many smaller and slower models. Our steady-speed tests, run both with and against the wind using a 1/10-gallon test tank, show how the cruising consumption varies between 23½ m.p.g. at a true 70 m.p.h., 31 m.p.g. at 50 m.p.h., and a noteworthy 38 m.p.g. at a sustained 30 m.p.h.

gallon figures of the car tested in 1952.

Instantaneous starting from cold, and quick warming-up to run normally, were good points which we observe whenever we test a Vauxhall, although in this case the tick-over was apt to be unreliable until a couple of miles had been covered.

Exhibiting great competence rather than specialized brilliance, the Vauxhall Velox is not the kind of car which evokes fervent enthusiasm, but profound respect for its abilities increases as each mile is covered. Spaciously comfortable, utterly docile, fast when the need arises and with quite a modest thirst for fuel, the popularity of this moderately priced car in Britain and in many other parts of the world can hardly be described as surprising.



LOW LOADING for luggage results from positioning of the fuel tank directly behind the rear seat backrest. Hung below the tail of the car is the spare wheel, the inflation of which may be checked through the small trap-door visible in the centre of this picture.

Mechanical Specification

Engine

Cylinders ...	...	...	...	6
Bore ...	...	...	...	79.4 mm.
Stroke ...	...	...	...	76.2 mm.
Cubic capacity ...	...	...	...	2,262 c.c.
Piston area ...	...	...	...	46.0 sq. in.
Valves ...	...	...	...	Pushrod o.h.v.
Compression ratio ...	...	...	...	Max. 7.6/1.
(Optional standard ratio 6.8/1.)				
Max. power ...	...	...	...	67.5 b.h.p.
(With standard compression ratio 65.5 b.h.p.)	...	...	...	at ...
at ...	...	...	...	4,000 r.p.m.
Piston speed at max. b.h.p.	...	...	...	2,000 ft. per min.
Carburetter	...	...	...	Zenith 30 VIG-7 down-draught
Ignition	...	...	...	"AC-Delco" 12-volt oil-filled coil
Sparking plugs ...	...	...	...	14 mm. AC "48"
Fuel pump ...	...	...	...	AC mechanical
Oil filter ...	...	...	...	AC by-pass

Transmission

Clutch ...	...	...	...	Borg & Beck 8-in. s.d.p.
Top gear (s/m) ...	...	...	...	4.125
2nd gear (s/m) ...	...	...	...	6.72
1st gear ...	...	...	...	12.79
Propeller shaft ...	...	...	...	Hardy Spicer open
Final drive ...	...	...	...	8/33 hypoid bevel

Chassis

Brakes ...	...	...	...	Lockheed-Vauxhall hydraulic
Brake drum diameter ...	...	...	...	9.13 in.
Friction lining area ...	...	...	...	100.6 sq. in.
Suspension:				
Front ...	...	...	...	Coil and wishbone I.F.S., with anti-roll torsion bar.
Rear ...	...	...	...	Semi-elliptic
Shock absorbers:				
Front ...	...	...	...	Vauxhall telescopic
Rear ...	...	...	...	Splay-mounted Vauxhall telescopic
Tyres ...	...	...	...	5.90-15

Steering

Steering gear ...	...	...	...	Burman, re-circulating ball type
Turning circle: Left ...	...	...	...	33 ft.
Right ...	...	...	...	35 ft.
Turns of steering wheel, lock to lock ...	...	...	...	4

Performance factors (at laden weight as tested):

Piston area, sq. in. per ton ...	...	...	...	35.4
Brake lining area, sq. in. per ton ...	...	...	...	77.5
Specific displacement, litres per ton mile	...	...	...	2,920
Fully described in <i>The Motor</i> , August 29, 1951 (new engines, April 23, 1952).	...	...	...

Coachwork and Equipment

Bumper height with car unladen:

Front (max.)	...	...	...	20 in., (min.) 12½ in.
Rear (max.)	...	...	...	19½ in., (min.) 15½ in.
Starting handle ...	...	...	...	No
Battery mounting ...	...	...	...	On scuttle
Jack ...	...	...	...	Ratchet-type
Jacking points ...	...	...	...	Two external (one each side of body)

Standard tool kit: Wheel nut spanner, sparking plug spanner and tommy bar, screwdriver, two open-ended spanners, adjustable spanner.

Exterior lights: Two headlamps, two side-lamps, two stop/tail lamps, number plate lamp.

Direction indicators ... Semaphore type, self-cancelling

Windscreen wipers ... Two-bladed, self-parking driven from engine

Sun vizors ... Two, universally pivoted

Instruments: Speedometer (recording 1/10ths miles, but not trip distances), Coolant temperature, fuel contents.

Warning lights: Dynamo charge, oil pressure, headlamp main beam

Locks:

With ignition key ... Ignition and either front door

With other keys ... Luggage locker

Glove lockers ... One on fascia panel, with lid

Map pockets ... Two large compartments in front doors

Parcel shelf ... Behind rear seat squab

Ashtrays ... Three (two on fascia, one behind front seat)

Cigar lighter ... Optional extra

Interior lights ... One in roof

Interior heater: Optional extra fresh-air heater and screen de-mister

Car radio: Optional extra (five pre-set stations)

Extras available: Heater, radio, foglamp, windscreen washing sprays, loose seat covers, link mats, supplementary tool kit, cigarette lighter, reversing lamps, anti-dazzle mirror, external mirror, towing bracket, clock.

Upholstery material Two-tone Vynide plastic

Carpets ... Pile

Exterior colours standardized ... 6

(Empress blue, Caribbean blue, sand beige, grey, green, black.)

Alternative body styles ... Nil