The Motor Road Test No. 2/60

Make: Ford **Type:** Falcon Fordor Sedan

Makers: Ford Motor Company, Dearborn, Michigan, U.S.A.

Concessionaires: Lincoln Cars Ltd., Great West Road, Brentford, Middlesex.

Test Data

CONDITIONS: *Weather: Cool and dry, with 20 m.p.h. wind and very low barometer. (Temperature 40°-42°F., Barometer 28.5 in. Hg.) Surface: Dry tarred macadam and concrete. Fuel: Intermediate grade pump petrol (approx. 90 Research Method Octane Rating).*

INSTRUMENTS

Speedometer at 30 m.p.h.	1% fast
Speedometer at 60 m.p.h.	3% fast
Speedometer at 80 m.p.h.	3% fast
Distance recorder	1% fast

WEIGHT

Kerb weight (unladen, but with oil, coolant and fuel for approx. 50 miles)...	21¾ cwt.
Front/rear distribution of kerb weight	55½/44½
Weight laden as tested	25½ cwt

MAXIMUM SPEEDS

Mean lap speed around banked test circuit	85.9 m.p.h.
Best one-way quarter mile on straight	90.0 m.p.h.
"Maximile" Speed. (Timed quarter mile after one mile accelerating from rest.)	
Mean of opposite runs	81.1 m.p.h.
Best one-way time equals	85.3 m.p.h.
Speed in gears	
Max. speed in 2nd gear	63 m.p.h.
Max. speed in 1st gear	33 m.p.h.

FUEL CONSUMPTION

38.5 m.p.g. at constant 30 m.p.h. on level.
35.0 m.p.g. at constant 40 m.p.h. on level.
31.5 m.p.g. at constant 50 m.p.h. on level.
27.5 m.p.g. at constant 60 m.p.h. on level.
23.5 m.p.g. at constant 70 m.p.h. on level.
17.5 m.p.g. at constant 80 m.p.h. on level.

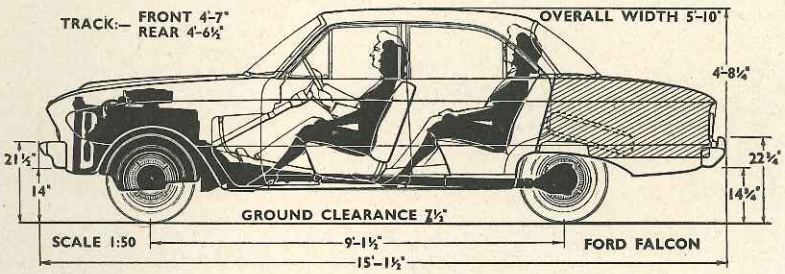
Overall Fuel Consumption for 1,783 miles, 71.7 gallons, equals 24.9 m.p.g. (11.3 litres/100 km.).

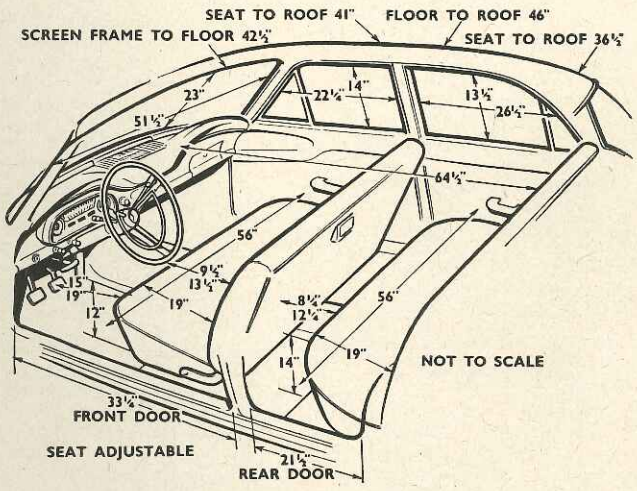
Touring Fuel Consumption (m.p.g. at steady speed midway between 30 m.p.h. and maximum, less 5% allowance for acceleration) 27.0 m.p.g.

Fuel tank capacity (maker's figure) 11.7gallons

STEERING

Turning circle between kerbs:	
Left	36¾ feet
Right	36 feet
Turns of steering wheel from lock to lock	5





ACCELERATION TIMES from standstill

0-30 m.p.h.	6.0 sec.
0-40 m.p.h.	9.7 sec.
0-50 m.p.h.	13.7 sec.
0-60 m.p.h.	19.5 sec.
0-70 m.p.h.	31.9 sec.
Standing quarter mile	21.5 sec.

ACCELERATION TIMES on Upper Ratios

	Top gear	2nd gear
10-30 m.p.h.	11.1 sec.	6.1 sec.
20-40 m.p.h.	11.1 sec.	6.2 sec.
30-50 m.p.h.	12.3 sec.	7.2 sec.
40-60 m.p.h.	14.2 sec.	10.4 sec.
50-70 m.p.h.	20.2 sec.	—

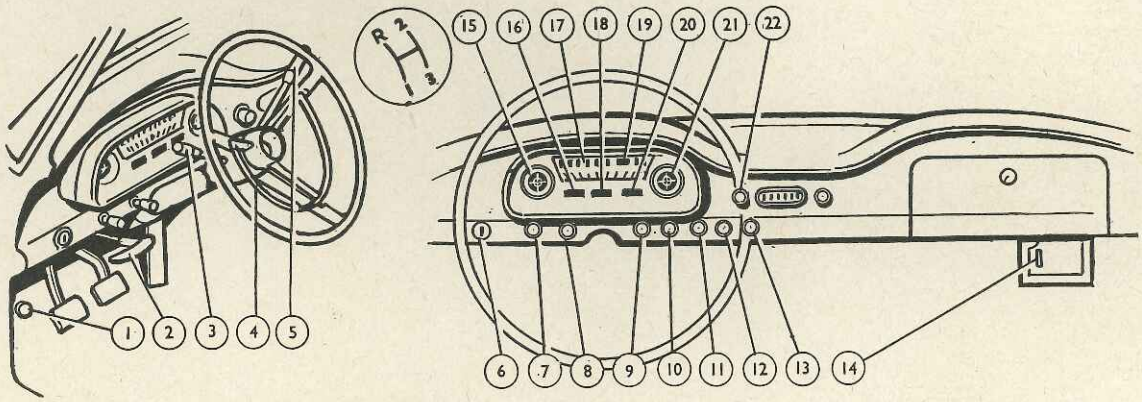
HILL CLIMBING at sustained steady speeds

Max. gradient on top gear ... 1 in 11.1 (Tapley 200 lb./ton)

Max. gradient on 2nd gear ... 1 in 5.9 (Tapley 375 lb./ton)

BRAKES from 30 m.p.h.

0.95 g retardation (equivalent to 31¾ ft. stopping distance) with 90 lb. pedal pressure.
0.87 g retardation (equivalent to 34½ ft. stopping distance) with 75 lb. pedal pressure.
0.40 g retardation (equivalent to 75 ft. stopping distance) with 50 lb. pedal pressure.
0.15 g retardation (equivalent to 200 ft. stopping distance) with 25 lb. pedal pressure



1. Dip switch. 2. Handbrake. 3. Direction indicator switch. 4. Horn ring. 5. Gear lever. 6. Ignition and starter switch. 7. Lights, panel light and interior light switch. 8. Windscreen wipers switch. 9. Choke control. 10. De-misting control. 11. Heater temperature control. 12. Heater, air intake and fan switch. 13. Cigar lighter. 14. Fresh-air vent controls. 15. Fuel contents indicator. 16. Oil pressure warning light. 17. Speedometer. 18. Distance recorder. 19. Direction indicator warning light. 20. Dynamo charge warning light. 21. Coolant temperature indicator. 22. Radio controls.

The FORD FALCON Fordor Sedan

A New American Six-seater which Exceeds 85 m.p.h. and is Notably Economical to Run

AS a reaction against the "horsepower race" which in recent years has rapidly increased the size and fuel thirst of most American automobiles the "big three" Detroit car builders have added what they describe as "compact cars" to their 1960 ranges. Of these three new American "compact cars," the Ford Falcon, which is being imported into Britain by Lincoln Cars, Ltd., and is the second of the trio to go through our usual Road Test on British roads, represents the most extreme reaction against flamboyantly extravagant designs, but with its modest 2,365 c.c. of engine and a catalogued 90 b.h.p. it is a remarkably pleasant and practical alternative to other Fords with up to 5,766 c.c. displacement and 300 catalogued b.h.p. As with recent new British Fords, the Falcon demonstrates notable economy of fuel, and it also gives the impression that, being built to a straightforward design, its maintenance costs over a long life should be low.

Handsome in appearance, thanks to its own moulded shape which needs little superficial decoration, the Falcon is apt on casual examination to be thought an almost tediously orthodox design. It has a water-cooled six-in-line engine with pushrod-operated o.h.v., the choice between a synchromesh 3-speed gearbox or a simple automatic transmission, coil and wishbone front suspension, semi-elliptic rear springs, and four-door bodywork of integral steel construction. Closer study of the design reveals that, whilst unorthodoxy for its own sake has certainly not been sought, there has been no lack of independent thought by the Ford engineers. The four-bearing crankshaft of an oversquare engine is a hollow iron casting; a six-port inlet manifold located outside the cylinder head nevertheless forms part of the head casting; a water heated flange is arranged below the carburetter, to prevent ice formation inside the induction system interfering with tick-over reliability; the ignition system lacks the usual centrifugal timing control, but has a vacuum-operated control sensitive to air speed through the choke as well as to throttle opening; the ball-jointed i.f.s. has geometry which diminishes nose-dipping under brake reaction, and the coil springs with their telescopic dampers act above the upper instead of the lower wishbone; the integral body has bolt-on attachment for the front wings which are its most easily damaged panels.

Although it is almost a yard shorter and nearly a foot narrower than the 1960 Ford Galaxie, the Falcon is certainly not a small car by European standards. Six adults can quite reasonably travel in it, and the driver looks ahead over a bonnet which is impressively long although it is low enough to be no serious obstruction to his range of vision. This is also a genuine "big car" in respect of the quietly effortless way in which it cruises along a motorway or good main road at an honest 75 m.p.h., a speed which the speedometer exaggerates by only about 2 m.p.h.

Two related facets of the Falcon's performance are, however, out of line with what many people expect of a big car, these being its top gear pulling power and its petrol consumption. An axle ratio of 3.1/1 and tyres of 6.00-13 size provide 21.6 m.p.h. per 1,000 r.p.m. of the engine, and top gear acceleration from 20 to 40 m.p.h. in 11.1 sec. (an abnormally low barometric pressure during our tests was taking probably around 5% off the engine's normal power output) represents low-speed pulling power which is comparable with that of many 1½-litre saloons. But, a computed Touring Fuel Consumption of 27 m.p.g., and an overall consumption in the hands of our hard-driving staff of 24.9 m.p.g. for 1,783 miles, provide a very full justification for the choice of a high top gear ratio—there are many present-day American cars which use petrol twice as fast as does the Falcon. With an 11.7-gallon tank, this car has an excellent range without refuelling

In Brief

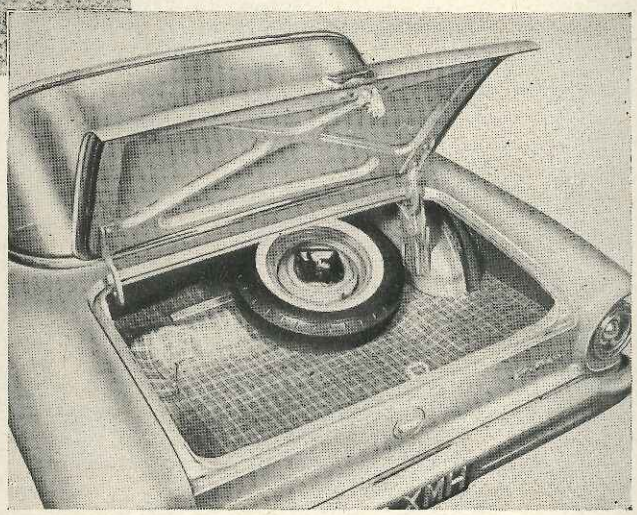
Price £1,415 plus purchase tax £590 14s. 2d. equals £2,005 14s. 2d.

Capacity	2,365 c.c.
Unladen kerb weight ...	21¾ cwt.
Acceleration:	
20-40 m.p.h. in top gear ...	11.1 sec.
0-50 m.p.h. through gears	13.7 sec.
Maximum top gear radient	1 in 11.1
Maximum speed	85.9 m.p.h.
"Maximile" speed	81.1 m.p.h.
Touring fuel consumption ...	27.0 m.p.g.

Gearing: 21.6 m.p.h. in top gear at 1,000 r.p.m.; 51.8 m.p.h. at 1,000 ft./min. piston speed.

The FORD FALCON

SCULPTURED shape of the Falcon's tail encloses a luggage locker which is capacious in spite of intrusions, and a petrol tank giving almost 300 miles range. Windows are large and the roof-line fashionably flat.

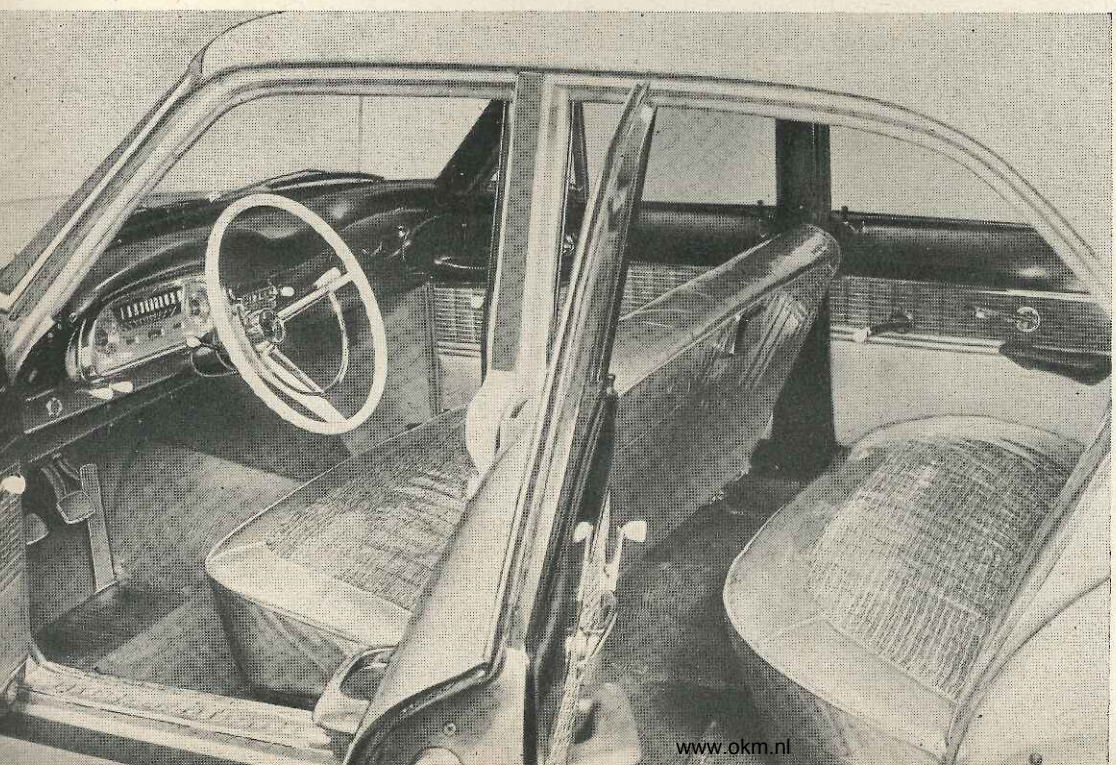


and, designed for American "regular grade" petrol of 91-92 Octane rating, its 8.7/1 compression ratio is satisfied by the 50/50 premium/regular petrol mixtures marketed in Britain.

Needing little help from the manual choke to start in near-freezing weather, the six-cylinder engine is smooth under load down to quite moderate r.p.m. even though it does not provide sparkling rapidity of top-gear acceleration. The 3-speed gearbox has powerful synchromesh on the upper two ratios, the reduction ratio of 1.75/1 chosen for middle gear seeming rather wide but combining with the axle gearing to produce a 5.42/1 middle gear which is genuinely useful up to nearly 60 m.p.h. The instruction book suggests engaging the unsynchronized 1st gear only with the car at rest, but it is in fact desirable and very reasonably easy to change down into bottom gear at low speeds in town traffic. Perhaps because of a helper spring on its linkage which keeps pedal pressures very low, the clutch is not easy to use smoothly, the 2nd gear starts which are often said to be American practice being almost impossible on the Falcon—a 1 in 4 gradient represents this model's extreme limit both for 1st gear re-starting and for being held stationary with the handbrake.

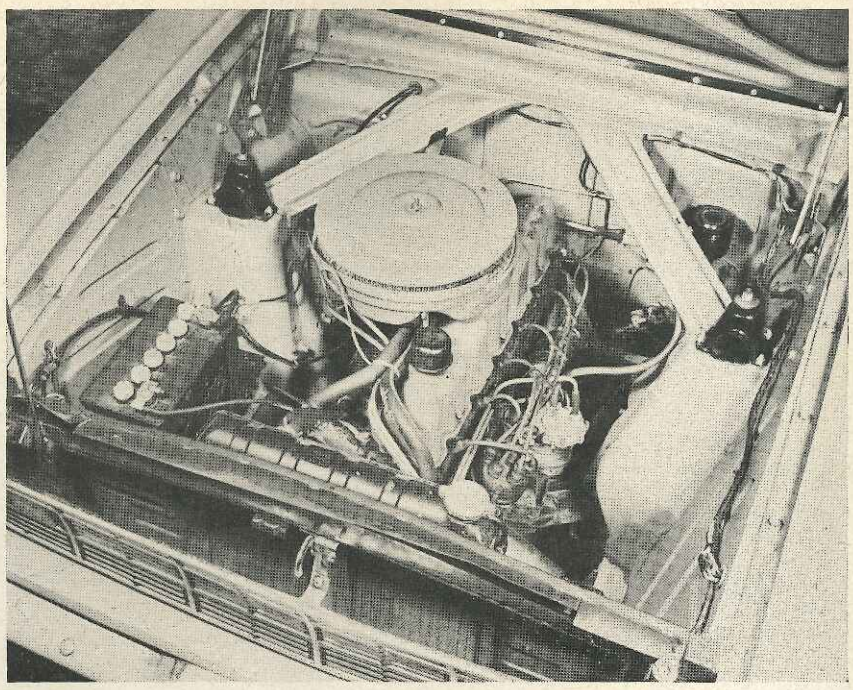
Although it lacks the fuel thirst and the top gear urge of many recent American cars, the Falcon shows some typical national steering characteristics. A big and deeply dished wheel is set back closer to the front seat than plump or short-legged drivers appreciate, and steering geared at 5 turns from lock to lock (with measured turning circles of 36 ft. and 36¾ ft. which are not especially compact) is by no means exaggeratedly sensitive. Equally, the steering is never very heavy to use, and one can understand why the Falcon is not offered with the power steering which is optional on larger American Fords. The modest weight of this far-from-small model, 21¾ cwt. as verified at the Weights and Measures Office, is surprising and a tribute to skilful design.

The substantially orthodox suspension system has reasonably flexible springs adequately controlled by 1 3/16 in. bore telescopic dampers, the spring frequencies being properly matched between front and rear to prevent pitching and to give surprisingly smooth travel over surfaces varying from very good to very bad indeed. The rear seat ride is commendably free from bounce or shock due to unsprung weight of the rigid axle or 5-leaf springs, but a certain amount of lateral float in the suspension impairs the comfort of fast travel for rear seat passengers without the driver noticing its existence. Cornering fast with only a very moderate amount of body roll and scarcely any tyre squeal, the Falcon shows the expected degree of understeer until when it is pushed to the limit the rear wheels start to slide, and it can be held very accurately to a chosen line except for a degree of uncertainty in windy



ROOM for six people is provided inside the easily-entered four-door body, transparent loose covers being fitted to the seats of our test model. Neatness and good finish inside the body contrast with many recent American products, but in very wet weather some rain water reached the rear floor of an early production car.

Fordor Sedan



SIMPLICITY beneath the bonnet is a Falcon feature, space between high-mounted front springs and shock absorbers being ample to make components of the short-stroke 2,365 c.c. six-cylinder engine easily accessible.

weather. When required, 9-inch hydraulic brakes are well able to check the Falcon from its maximum speed of over 85 m.p.h., all stops being in a straight line although the retardation provided by the self-energizing brakes is by no means in direct proportion to pedal effort.

At first acquaintance, the bench-type front seat of the Falcon feels almost uncomfortably hard, but like many such seats its comfort withstands the test of a long day's driving very well. The rear seat is uncramped, but its too-short cushion fails to provide any support below the knees. Armrests are provided on the four doors, but not in the centres of the bench seats. Ample areas of glass surround the passengers, but rather slimmer pillars alongside the broad windscreen would be a useful further improvement. Although the floor is recessed below the door sills, this car with its 4 ft. 8¼ in. unladen height has escaped the fashion for exaggeratedly low build and its four doors provide comfortably easy entry to all seats. Behind the car, there is a luggage locker of very large cubic capacity, boasting a good expanse of flat fabric-covered floor despite intrusions by a horizontal spare wheel, the petrol filler pipe and a hump over the rear axle: on our test model, torsion bar springs were just not strong enough to hold the lift-up lid open if the car was on a hill or any wind was blowing, but later cars are unlikely to show this sort of painful detail fault.

Interior decor in the Falcon is of a neat but soberly practical character which contrasts strongly with many recent American designs, the whole facia of our grey-and-cream test car being finished in black. The facia top is thickly padded, and its base well rounded, to save passengers from injury in accidents. A neat panel with variable-brightness illumination faces the driver, and identifies four of the minor controls as well as carrying a quadrant speedometer and uncalibrated "target" style indicators of fuel level and coolant temperature.

Vacuum-operated windscreen wipers are used on this model, it being possible to regulate their speed to some extent although this also varies to a considerable and unwelcome extent with throttle opening—a booster pump usually prevents them stopping completely. Slower to get into action than might have been expected, the interior heater eventually settled down to do a good job of work, and with rear windows fractionally open considerable warmth reached rear seat passengers. Orthodox twin headlamps are fitted, the 12-volt 40 amp. hr. battery seeming rather small by British standards although it is normal for a country such as the U.S.A. where parking on the highway with lights burning is not normally permissible. Our left-hand-drive test model originated in Detroit whereas subsequent imports to Britain are likely to be Canadian built, but its general finish was superior to that found on many larger and dearer (but much more complex) transatlantic products—a few details such as door locks could be faulted but might improve with use and careful lubrication as did the initially almost inoperable lock of the luggage compartment.

Although its design cannot in any way be identified with Ford models built at Dagenham or Cologne, the Falcon has obviously benefited from the technical liaison which its designers maintained with these associated factories during a period when nothing smaller than 3,655 c.c. and 145 b.h.p. was being built in Detroit. As an entirely new model, it shows a strictly sensible excellence of design which, if Americans now consider that ease of parking, reliability and economy of operation are important features of a car, should make it extremely popular as something midway between the smaller best-selling European models and the larger Detroit products.

Specification

Engine

Cylinders	6
Bore	88.9 mm.
Stroke	63.5 mm.
Cubic capacity	2,365 c.c.
Piston area	57.7 sq. in.
Valves	Pushrod o.h.v.
Compression ratio	8.7/1
Carburetter	Holley 1 7/16 in. single-choke downdraught
Fuel pump	Mechanical
Ignition timing control	Vacuum, sensitive to both choke and manifold depressions
Oil filter	Full-flow
Max. power (gross) at	90 b.h.p. at 4,200 r.p.m.
Piston speed at max. b.h.p.	1,750 ft./min.

Transmission

Clutch	Long 8½-in. single dry plate, with helper spring
Top gear (s/m)	3.10
2nd gear (s/m)	5.42
1st gear	10.2
Reverse	13.8
Propeller shaft	Single-piece open
Final drive	10/31 hypoid bevel
Top gear m.p.h. at 1,000 r.p.m.	21.6
Top gear m.p.h. at 1,000 ft./min. piston speed	51.8

Chassis

Brakes	Hydraulic self-energizing
Brake drum internal diameter	9 in.
Friction areas: 114.3 sq. in. of lining working on 212 sq. in. rubbed area of drums.	
Suspension:	
Front: Independent by coil springs, ball jointed wishbones and anti-roll torsion bar.	
Rear	Semi-elliptic leaf springs
Shock absorbers	Telescopic
Steering gear	Recirculating ball-bearing worm and nut
Tyres	6.00—13 tubeless, 4-ply

Coachwork and Equipment

Starting handle	None
Battery mounting	Alongside engine on right
Jack	Ratchet pillar type
Jacking points	Under front and rear bumpers
Standard tool kit: Jack and combined jack handle/wheel nut spanner.	
Exterior lights: 2 headlamps, 2 sidelamps/turn indicators, 2 stop/tail/turn indicator lamps, number plate lamp.	
Number of electrical fuses	2 (with radio, 3)
Direction indicators: Self-cancelling flashers combined with side and stop lamps.	
Windscreen wipers: Vacuum-operated twin blade (with engine driven booster pump).	
Windscreen washers	Optional extra, pedal operated
Sun visors	Two, universally pivoted
Instruments: Speedometer with decimal total distance recorder, fuel contents indicator, coolant temperature indicator.	
Warning lights: Dynamo charge, oil pressure, headlamp main beam, turn indicators.	
Locks: with ignition-key. Ignition/starter switch and either front door with other key. Luggage locker.	
Glove lockers	One on facia, with lid
Map pockets	None
Parcel shelves	One behind rear seat
Ashtrays: One on facia, one behind front seat.	
Cigar lighters	One on facia
Interior lights: One in roof with courtesy switches on front doors.	
Interior heater: Optional extra, fresh air type with screen de-misters.	
Car radio	Optional extra
Upholstery material: Vinyl and nylon cloth.	
Floor covering	Rubber matting
Exterior colours standardized: 9 (also 14 two-tone combinations.	
Alternative body styles	Tudor saloon

Maintenance

Sump: 5.8 pints plus 1.7 pints in filter, S.A.E 30 above 90° F. or S.A.E. 20W between 20° and 90° F.	
Gearbox	2 pints, S.A.E. 80 gear oil.
Rear axle: 1.7 pints, S.A.E. 90 hypoid gear oil.	
Steering gear lubricant: S.A.E. 80 gear oil.	
Cooling system capacity: 14½ pints plus 1¾ pints in heater (2 drain taps).	
Chassis lubrication: By grease gun every 1,000 miles to 11 points.	
Ignition timing: 2° before t.d.c. at 500 r.p.m. tick-over.	
Contact-breaker gap	0.024-0.026 in.
Sparking plug type 18 mm. Champion type F14 Y.	
Sparking plug gap	0.032-0.036 in
Valve timing: Inlet opens 15° before t.d.c. and closes 37° after b.d.c.; exhaust opens 45° before b.d.c. and closes 7° after t.d.c.	
Tappel clearances (hot): Inlet and exhaust, 0.016 in.	
Front wheel toe-in	5/32 to 7/32 in.
Camber angle	0° to 1° positive
Castor angle	0° to 1° positive
Steering swivel pin inclination	7°
Tyre pressures	Front and rear, 24 lb.
Brake fluid	Heavy duty
Battery type and capacity	12 volt, 40 amp. hr.