

The Motor Road Test No. 24/59

Make: Vauxhall

Type: Velox Friary Estate Car

Makers: Vauxhall Motors Ltd., Luton, Beds., and Friary Motors, Ltd., Basingstoke.

Test Data

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CONDITIONS: Weather: Warm and dry with little wind. (Temperature 68°-76°F., Barometer 29.7 to 29.8 in.Hg.). Surface: Dry tar macadam. Fuel: Premium grade pump petrol (approx. 96 Research Method Octane Rating).

INSTRUMENTS

Speedometer at 30 m.p.h. ... 7% fast
 Speedometer at 60 m.p.h. ... 1% fast
 Speedometer at 80 m.p.h. ... 1% slow
 Distance recorder ... Accurate

WEIGHT

Kerb weight (unladen, but with oil, coolant and fuel for approx. 50 miles) ... 24½ cwt.
 Front/rear distribution of kerb weight ... 51/49
 Weight laden as tested ... 28½ cwt.

MAXIMUM SPEEDS

Flying lap of banked circuit ... 88.7 m.p.h.
 Best one-way ¼-mile on straight ... 90.0 m.p.h.
 "Maximile" Speed. (Timed quarter mile after one mile accelerating from rest)
 Mean of opposite runs ... 87.4 m.p.h.
 Best ¼-mile time equals ... 88.2 m.p.h.
Speed in gears
 Max. speed in 2nd gear ... 60 m.p.h.
 Max. speed in 1st gear ... 37 m.p.h.

FUEL CONSUMPTION

32½ m.p.g. at constant 30 m.p.h. on level.
 29½ m.p.g. at constant 40 m.p.h. on level.
 27 m.p.g. at constant 50 m.p.h. on level.
 24½ m.p.g. at constant 60 m.p.h. on level.
 22½ m.p.g. at constant 70 m.p.h. on level.
 17½ m.p.g. at constant 80 m.p.h. on level.
Overall Fuel Consumption for 1,212 miles, 55.6 gallons, equals 21.8 m.p.g. (13.0 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) 23.6 m.p.g.
 Fuel tank capacity (maker's figure) 14 gallons

STEERING

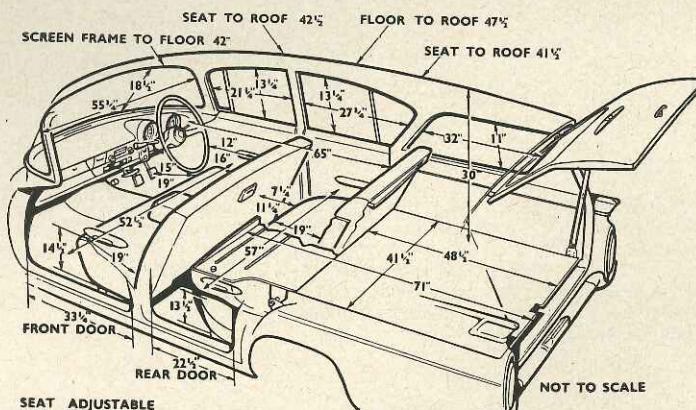
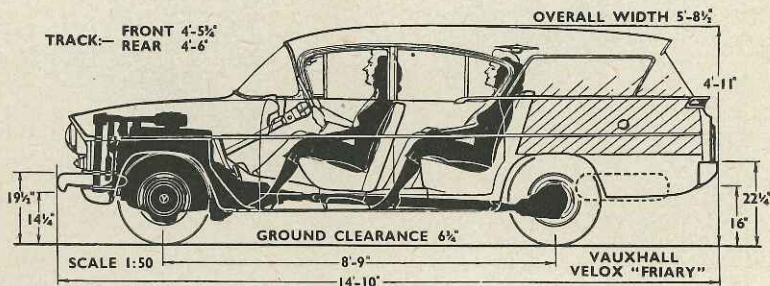
Turning circle between kerbs:
 Left ... 33½ feet
 Right ... 34 feet
 Turns of steering wheel from lock to lock 4

BRAKES from 30 m.p.h.

0.90 g retardation (equivalent to 33½ ft. stopping distance) with 120 lb. pedal pressure.
 0.88 g retardation (equivalent to 34½ ft. stopping distance) with 100 lb. pedal pressure.
 0.67 g retardation (equivalent to 43½ ft. stopping distance) with 75 lb. pedal pressure.
 0.43 g retardation (equivalent to 69½ ft. stopping distance) with 50 lb. pedal pressure.
 0.20 g retardation (equivalent to 120 ft. stopping distance) with 25 lb. pedal pressure.

HILL CLIMBING at sustained steady speeds

Max. gradient on top gear ... 1 in 8.8 (Tapley 255 lb./ton)
 Max. gradient on 2nd gear ... 1 in 5.4 (Tapley 405 lb./ton)

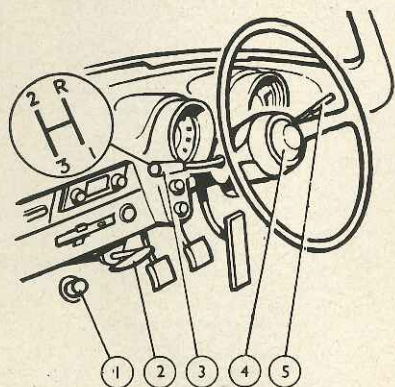


ACCELERATION TIMES from standstill

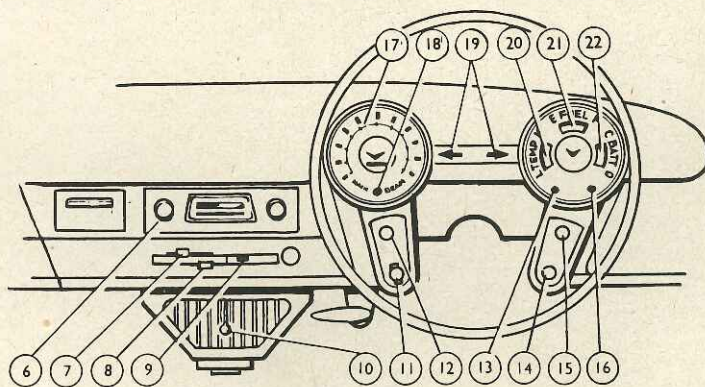
0-30 m.p.h.	4.7 sec.
0-40 m.p.h.	8.3 sec.
0-50 m.p.h.	11.6 sec.
0-60 m.p.h.	17.6 sec.
0-70 m.p.h.	26.1 sec.
0-80 m.p.h.	40.6 sec.
Standing quarter mile	21.4 sec.

ACCELERATION TIMES on Upper Ratios

	Top gear	2nd gear
10-30 m.p.h.	8.4 sec.	5.0 sec.
20-40 m.p.h.	9.5 sec.	5.6 sec.
30-50 m.p.h.	10.2 sec.	6.7 sec.
40-60 m.p.h.	10.7 sec.	—
50-70 m.p.h.	14.0 sec.	—
60-80 m.p.h.	23.0 sec.	—



1. Dip switch. 2. Handbrake. 3. Gear lever. 4. Horn button. 5. Direction indicators switch. 6. Radio controls (when fitted). 7. Heat control. 8. Air control. 9. Two-speed fan switch. 10. Cold



air shutters. 11. Ignition. 12. Provision for fog lamp switch. 13. Dynamo charge warning light. 14. Windscreen wiper and (optional) washer control. 15. Lights and panel light rheostat.

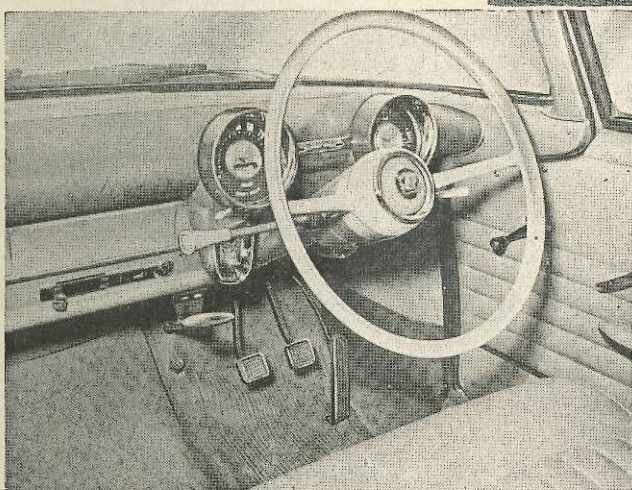
16. Oil warning light. 17. Speedometer. 18. Main beam warning light. 19. Direction indicators warning light. 20. Water thermometer. 21. Fuel gauge. 22. Ammeter.

The VAUXHALL VELOX

Friary

Estate Car

A Roomy and Imposing
Dual-purpose Car with
a Restful but Lively
Performance



EXTENSION of the Velox roof-line to form an estate car tail on the body is a conversion which lengthens the car's appearance without adding to the overall length.

BLACK-TOPPED to eliminate reflections the fascia panel has the instruments neatly grouped in two circular dials, with some minor controls not too easily accessible behind the steering wheel.

flat floor, gives a particularly clear space entirely free of any kind of obstruction. The floor width is 41½ in. and, even when the rear seats are occupied by passengers, the clear length is 48½ in. With the seat folded, this fore-and-aft dimension is increased to no less than 71 in., but even this does not tell the whole story because there is still a space of some 9 in. between the end of the extended floor and the back of the front seat, which enables a considerable amount of additional luggage to be stowed on the normal rear-passenger-compartment floor. To prevent articles on the main luggage floor sliding forward, a suitable ledge is provided.

The whole arrangement, which gives a luggage capacity of 30 cu. ft. when the rear seats are in use and no less than 52 cu. ft. when the rear squab is folded, has been planned so that, if desired, the vehicle can be used for camping, with adequate space for two people to sleep.

For loading purposes, the luggage compartment is accessible either via the normal side doors or via a top-hinged tail door which extends to the full width of the luggage floor and provides an opening

INTRODUCED recently, the Friary Estate Car conversion of the Vauxhall Velox and Cresta models represents a very logical and sensible addition to this range of roomy six-cylinder 2.3-litre cars—logical because the general power and performance are particularly well-suited to estate-car requirements, and sensible because the very large luggage capacity has been obtained without excessive overhang and, indeed, without any addition to the overall length and width of saloon models.

The word "conversion" should, incidentally, be noted because the basic, all-steel, integral body-chassis structure of the Velox and Cresta is used, with the rear portion modified to estate-car form. Whilst this fact is not undetectable by those with an eye for door and window contours, the overall effect is, nevertheless, both pleasing and imposing. The conversion is the work of Friary Motors, Ltd., of Basingstoke, with the full co-operation of Vauxhall Motors, Ltd., who now list these models in their normal catalogue range.

An example of a Velox was recently submitted for test and before its qualities are considered in detail, it is worth stressing that the conversion has made surprisingly little difference to either performance or handling qualities, although, as one

would expect, a slight falling off in acceleration and fuel economy is noticeable, an increase in weight of a little over 1 cwt. doubtless being responsible.

In the front, the normal three-abreast bench-type Velox seat is used and, indeed, there is nothing to denote that this is other than a normal Velox model. In the rear compartment, the front-to-rear dimension of the seat cushion is slightly curtailed, although the seat still provides a satisfactory standard of comfort with adequate knee room and plenty of space for the occupants' feet below the front squab. As at the front, there is ample room for three abreast and both a wide folding central arm rest and fixed side arm rests on the doors are provided.

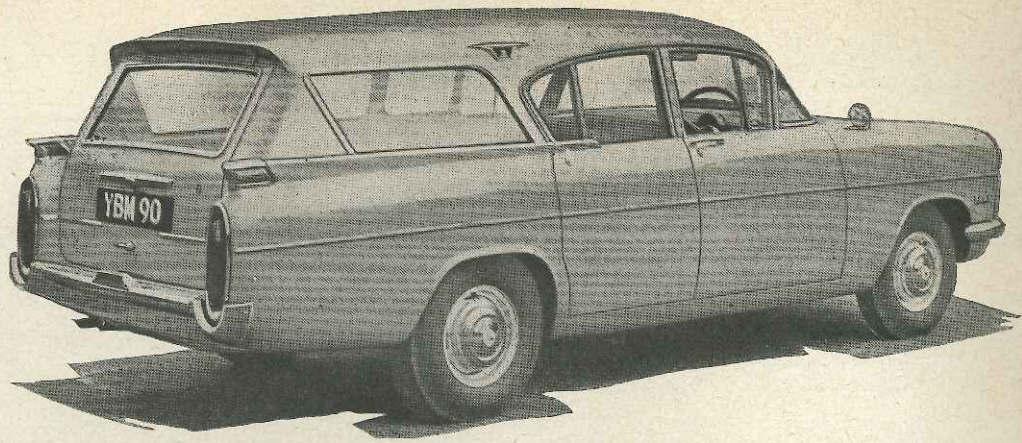
The rear squab, however, is arranged to swing forward so that its back lines up with the luggage floor to give an exceptionally long and completely flat luggage platform. The folding arrangements are particularly simple as it is quite unnecessary to interfere with the actual seat cushions, the single action of swinging the squab forward being all that is necessary to obtain the extra luggage accommodation.

A notable feature of the luggage compartment is that the wheel arches are completely boxed in and this, together with the

In Brief

Price	£862 plus purchase tax	£360 5s. 10d.	
	equals	£1,222 5s. 10d.	
Capacity	...	...	2,262 c.c.
Unladen kerb weight	...	...	24½ cwt.
Acceleration:			
20-40 m.p.h. in top gear	...	...	9.5 sec.
0-50 m.p.h. through gears	...	...	11.6 sec.
Maximum top gear gradient	...	...	1 in 8.8
Maximum speed	...	...	88.7 m.p.h.
"Maximile" speed	...	...	87.4 m.p.h.
Touring fuel consumption	...	...	23.6 m.p.g.
Gearing: 17.3 m.p.h. in top gear at 1,000 r.p.m.; 34.6 m.p.h. at 1,000 ft./min. piston speed.			

ADDITIONAL rear quarter windows of generous size retain excellent all-round vision from inside the car, slight rear overhang of the roof being a practical and fashionable detail.



26 in. high with a loading height $25\frac{1}{2}$ in. from the ground. Sensible features of the rear door are that it swings open well above the horizontal for easy loading and has rounded corners for obvious safety reasons. As with so many estate cars, however, the number plate is attached to the rear door so that a special plate has to be rigged up if it is desired to run with the door open to accommodate oversize loads.

Both the floor and side walls of the luggage compartment, together with the back of the rear squab are covered with Vynil sheet with a non-slip surface and the sides have chromium-plated rubbing strips. The floor covering is secured with press fasteners and a removable circular panel gives access to the spare wheel and tools—an arrangement which has the advantage of neatness although the deep recessing of the wheel calls for some effort in its removal whilst it is, of course,

16.8 sec. recorded for the saloon. Above 60 m.p.h. the difference is rather more marked and the estate car took 2.4 sec. longer to reach 70 m.p.h. and 6.7 sec. longer to reach 80 m.p.h. from rest. Even so, the estate car version is still a very lively performer.

The estate car, moreover, retains the very notable top-gear flexibility which has long been a feature of the six-cylinder Vauxhall range. The engine is not only smooth and good tempered when allowed to fall to speeds as low as 15 m.p.h. in top, but also responds in most notable fashion to the accelerator. Indeed, one of the charms of this car (which retains the normal saloon gearing) is its ability to overtake slower traffic without use of the gear lever—a quality which makes for both quiet and restful motoring and surprisingly good journey times without conscious hurry.

So far as fuel consumption is concerned,

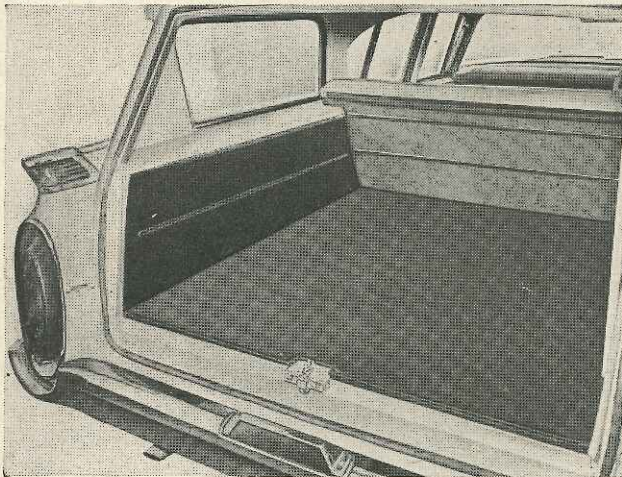
constant-speed comparisons at 40 m.p.h., 60 m.p.h. and 80 m.p.h. give a clue to differences which a less well-tuned engine probably exaggerated, the respective figures for the estate car (with the saloon comparison in brackets) being $29\frac{1}{2}$ m.p.g. (33 m.p.g.), $24\frac{1}{2}$ m.p.g. ($26\frac{1}{2}$ m.p.g.) and $17\frac{1}{2}$ m.p.g. (20 m.p.g.). The overall consumption recorded for the estate car worked out at 21.8 m.p.g. compared with 22.3 m.p.g. for the saloon.

The need to cure some oil leakages demonstrated to us that this engine is unusually accessible under the wide bonnet, the only minor point of criticism in this respect being a tendency for the dipstick to get tangled with wires and a vacuum pipe to the distributor. Starting (with an automatic choke) was always easy and warming-up quite quick. Throughout the range the engine is very sweet although slightly on the fussy side at 60 m.p.h. upwards; the car will, nevertheless, cruise willingly in the "seventies."

A peculiarity which we have not noticed previously on Vauxhall models was a slight high-frequency vibration which had no connection with the engine and appeared to be road-excited as it was noticeable on some surfaces but not on others.

Very pleasing is the general lightness of the controls. The clutch requires little effort, and is smooth once the need to use an appreciable accelerator-pedal pressure when starting from rest is appreciated; the steering-column change for the three-speed gearbox is a very satisfactory example of its type, and the fact that synchromesh is provided for first speed is a much appreciated point as occasions for engaging bottom gear on the move are naturally more frequent than where four speeds are provided.

Owing to the excellent low and medium-speed torque already mentioned, the

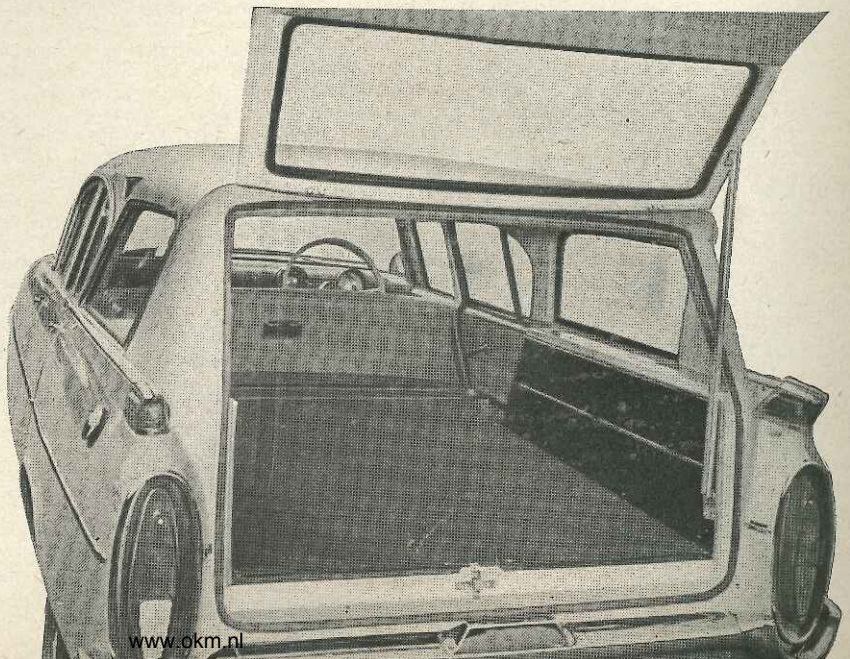


ALTERNATIVE uses of this model are emphasized by these two photographs. With the arm-rest-equipped rear seat in use there is accommodation for up to six people and the generous amount of luggage space shown on the left. Folding forward the rear seat backrest extends the luggage capacity as shown below, this photograph also revealing the lift-up rear door.

necessary to disturb the luggage to gain access to it.

On the car tried, dual tanks (with a total capacity of 14 gallons) were fitted, one on each side of the spare wheel, but the arrangement, although neat, introduced complications with fuel gauge accuracy and is to be modified on future models, which will also have an improved filler orifice less liable than the test example to blow back when being filled rapidly.

It was mentioned earlier that the handling characteristics of the estate car are little different from those of the normal saloon and that the effect on performance is not great. The following comparisons with a Cresta saloon tested by *The Motor* in the spring of last year illustrate the point. The maximum speed of the estate car proved to be 88.7 m.p.h. compared with the saloon speed of 89.8 m.p.h. In terms of acceleration, there is little to choose between the two up to 60 m.p.h., that speed being reached on the estate car from rest in 17.6 sec. compared with a time of



The VAUXHALL VELOX Friary Estate Car

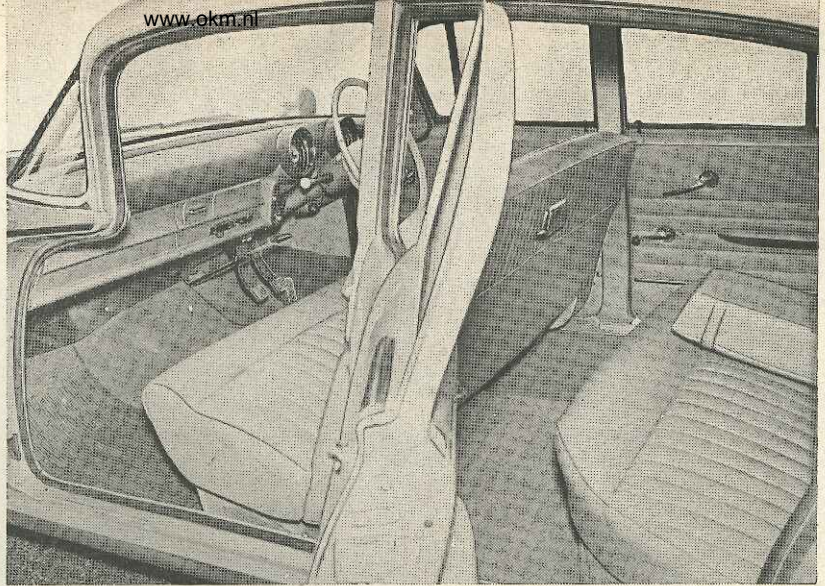
absence of a fourth ratio is not seriously missed. Second gear is by no means silent, but offers an easy 45 m.p.h. for normal acceleration and hill-climbing, with a good deal in hand if required (the actual maximum is 60 m.p.h.), whilst the ability of the engine to deal with gradients of steeper than 1 in 9 in top reduces the need for using an intermediate gear to a minimum.

The general lightness of the controls also extends to the steering, which not only calls for minimum effort but also has good self-centring action and a very high degree of precision for a touring car. On the straight, this Velox estate car follows a precise line with minimum attention from the driver and on corners it behaves as anticipated with no unexpected tricks for the driver to learn. Roll is extremely well controlled by a front torsion bar.

One of the few mechanical modifications compared with the normal saloon lies in the use of heavy-duty rear springs and tyres. In consequence, the suspension is rather more firm than normal when lightly loaded, but certainly cannot be described as harsh; the ride, in fact, is very comfortable at all times, this applying both to good surfaces and to the sort of unmade roads encountered on building estates.

With the exception of the handbrake (which is a not particularly convenient example of the pull-and-twist type), the main controls are well placed and nicely spaced. In particular, there is plenty of room for a farmer's gum-boots on the pedals, with room at the side of the clutch for the driver's left foot where it rests naturally on the dipper switch.

The small controls are well placed to avoid confusion but could be easier to reach. Notable detail points include an elaborate combined ignition-and-starter switch which provides for use of the auxiliary accessory circuit without the ignition



INTERIOR roominess and the retention of all saloon car amenities such as folding armrests, ashtrays, and four passenger doors make this a sensible everyday car as well as a notable load carrier.

and is also arranged so that, when desired, the key can be withdrawn whilst still leaving the switch operable. Another pleasing detail is a dimming switch (combined with the main push/pull lighting switch) for varying the instrument lighting, an extreme position bringing in the roof light, which incorporates a plastic lens directing a bright reading beam on to the front seats.

As with the normal saloon, this estate car provides an extremely good range of vision for both driver and passengers and, whilst the wrap-round screen cannot be said to be completely free of distortion at its extremities, the displacement of objects is so slight as to be normally unnoticeable. Less pleasing are the non-intersecting arcs of the wiper blades. A good feature of the car tried was a pair of external mirrors placed on the body sides close to the base of the screen where they give an extremely helpful view along the sides of the car for reversing; one, on the driver's side, is

standard, and the second is an extra. Other extras on the model tried included a fresh air heater, a screen washer, and a folding centre arm-rest in the front.

In all, this Friary estate car version of the Velox and Cresta models is a vehicle which should find a considerable market. Having a greater degree of elegance than many vehicles of its type, it nevertheless offers a greater-than-average carrying capacity, combined with the further advantages of both ease of access and ease of conversion from a six-seater car with above-normal luggage capacity to a three-seater which will accommodate a very large amount of baggage or provide sleeping accommodation for two if required. An inclusive price of £1,222 5s. 10d. (excluding extras) is a very reasonable figure for such versatility.

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Specification

Engine	
Cylinders	6
Bore	79.37 mm.
Stroke	76.20 mm.
Cubic capacity	2,262 c.c.
Piston area	46.0 sq. in.
Valves	Overhead (pushrods)
Compression ratio	7.8/1 (optional 6.8)
Carburettor	Zenith 34 VNT downdraught
Fuel pump	AC mechanical
Ignition timing control	Centrifugal and vacuum
Oil filter	AC by-pass
Max. power (gross)	82.5 b.h.p. (76 b.h.p. net)
at	4,400 r.p.m.
Piston speed at max. b.h.p.	2,200 ft./min.
Transmission	
Clutch	Borg and Beck 8 in. s.d.p.
2nd gear (s/m)	4.111
3rd gear (s/m)	6.721
4th gear (s/m)	11.776
Reverse	12.537
Propeller shaft	Hardy Spicer, open
Final drive	Hypoid bevel
Top gear m.p.h. at 1,000 r.p.m.	17.3
Top gear m.p.h. at 1,000 ft./min. piston speed	34.6
Chassis	
Brakes	Lockheed hydraulic (2 l.s. on front)
Brake drum internal diameter	9 in.
Friction lining area	137½ sq. in.
Suspension:	
Front	Independent by coil springs, wishbones and anti-roll bar
Rear	Semi-elliptic
Shock absorbers	Telescopic hydraulic
Steering gear	Burman recirculating ball
Tyres	6.40-13 (6-ply tubeless)

Coachwork and Equipment

Starting handle	None	Glove lockers	One (on passenger's side) with door and one open
Battery mounting	Alongside engine on left	Map pockets	Two (in sides of scuttle)
Jack	Scissor type	Parcel shelves	None
Jacking points	External, under body sills, 4 points	Ashtrays	One on fascia panel and one on back of front seat
Standard tool kit: Jack, wheel-nut spanner, sparking plug spanner, brake shoe adjuster, screwdriver, adjustable spanner, two double open-ended spanners.		Cigar lighters	None
Exterior lights: 2 headlamps, 2 sidelamps, 2 stop/tail lights, rear number plate lamp.		Interior lights	One in roof with courtesy and manual switches
Number of electrical fuses	2 fuses, 1 thermal interrupter	Interior heater	Available as extra
Direction indicators	Separate amber flashers, front and rear, self-cancelling	Car radio	Available as extra
Windscreen wipers	Twin-blade, two-speed electric, self-parking	Extras available: Front-seat centre folding arm-rest, second external mirror, Plessey radio, screen washer, fresh-air heater and demister; also wide range of Vauxhall-approved accessories.	
Windscreen washers	Available as extra	Upholstery material	Vynide
Sun visors	Two, universally mounted	Floor covering: Rubber matting in front, carpet in rear and plastic matting in luggage compartment.	
Instruments: Speedometer with non-trip decimal distance recorder, fuel gauge, ammeter, coolant thermometer.		Exterior colours standardized: One single and eight dual colour schemes.	
Warning lights: Dynamo charge, oil pressure, headlamp main beam, direction indicators.		Alternative body styles	Velox and Cresta 4-door saloons
Locks: With ignition key	Ignition and both front doors		
With other keys	Tail door		

Maintenance

Sump	10½ pints, S.A.E. 20	51.6 degrees B.B.D.C., closes 28.6 degrees A.T.D.C.	
Gearbox	2.1 pints, S.A.E. 90	Tappet clearances (Hot): Inlet and exhaust, 0.013 in.	
Rear axle	3.8 pints, S.A.E. 90 EP	Front wheel toe-in	½ in.
Steering gear lubricant	S.A.E. 90	Camber angle	0 degrees 38 min. laden
Cooling system capacity 16 pints or 17½ pints if heater fitted (2 drain taps).		Castor angle	2 degrees laden
Chassis lubrication: By grease gun every 1,000 miles to 19 points.		Steering swivel pin inclination	4 degrees
Ignition timing:	9 degrees B.T.D.C. static	Tyre pressures (normal):	
Contact-breaker gap	0.019-0.021 in.	Front	24 lb.
Spark plug type	AC, type 44-5V	Rear	24 lb.
Spark plug gap	0.028-0.030 in.	(Front 26 lb., rear 28 lb. for max. loading)	
Valve timing: Inlet opens 19.6 degrees B.T.D.C., closes 16.6 degrees A.B.D.C. Exhaust opens		Brake fluid	Lockheed 102
		Battery type and capacity: Exide, 6-XTF9R, 12-volt, 53 amp./hr.	