

Specifications

D TYPE CHASSIS, 25 H.P.

ENGINE Four cylinders, 95 mm. bore by 140 mm. stroke. R.A.C. rating, 22.4 h.p. Cylinder capacity 4 litres. Firing order 1-2-4-3. Crankshaft has five bearings of following dimensions—front and rear 2 inches diameter by 3 inches; second, third and fourth 2 inches diameter by $2\frac{1}{4}$ inches. Pins, 2 inches diameter by $2\frac{1}{4}$ inches.

IGNITION High tension magneto, variable spark.

CARBURETTOR Zenith. An extra air inlet worked by a lever fitted above the steering wheel allows the strength of the mixture to be varied at the will of the driver, who can thus make his choice between maximum power and maximum economy.

LUBRICATION The forced lubrication is on the Vauxhall plunger pump system, and requires no attention whatever.

COOLING The Vauxhall fan and pump combination, successfully employed since 1912. The same belt drives the pump and the fan, and the size of the water connections ensures adequate cooling by thermo-syphon action should the fan belt be removed, which may be done in winter. Experience on practically all cars demonstrates that the belt is the only satisfactory method of driving a fan, on account of the very large effort required to accelerate the fan when the engine throttle is opened. This effort will break chains and ordinary gear teeth, but no such trouble occurs with the belt, as it can slip slightly. Bearing in mind that the horse-power required to drive the pump at an engine speed of, say, 1,500 revs. per minute, is about one-fortieth of that required to drive the fan, it is obviously unnecessary to use a gear drive of the size usually fitted for working the pump. Moreover, if during frosty weather the impeller freezes to the casing of the pump, a breakdown of the pump driving gear is caused when the engine is started. In the Vauxhall design the belt merely slips on its pulley and no damage is done. The arrangement of the belt renders adjustment very rarely necessary; when required, it can easily be made, as the belt pulley on the fan spindle is of the adjustable cone type. Capacity of cooling system, 6 gallons.

FRONT AXLE The front axle has inclined steering pivots, which are completely encased and lubricated with oil. The steering connections are so disposed that no shocks are transmitted through the steering wheel.

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STEERING Worm and wheel type. The Vauxhall steering gear is noted for being exceedingly light in operation and for its automatic stability. Steering wheel 17 inches diameter.

CLUTCH Vauxhall multi-disc with dry plates running in graphite. The power is taken up with perfect smoothness, and there is no end thrust from the crankshaft when the clutch is engaged. The Vauxhall clutch is particularly light in operation.

GEARBOX Four speeds and reverse. The top speed is direct, and just as its ratio is that which is considered to be the most suitable for top gear purposes, so the first speed is sufficiently low to tackle the most trying conditions. Vauxhall special form of gear teeth.

FOOT BRAKE The foot brake is placed at the rear of the gearbox, and is easily adjustable. Asbestos fabric lined.

BACK AXLE The back axle is of orthodox design, with straight tooth differential gear and spiral bevels. The road wheels are carried on sleeves, so that the axle is of the full floating type.

REAR BRAKE 16 in. diameter. Internal (expanding), asbestos fabric lined.

SPRINGING The springs are semi-elliptic, made of silico-manganese steel. Front 36 inches by 2 inches; back 48 inches by $2\frac{1}{4}$ inches.

PETROL SUPPLY Tank at rear with air-pump feed. Tank holds 12 galls.

WHEELS Detachable wire, 880 mm. by 120 mm.

FINISH Nickel.

EQUIPMENT Complete Vauxhall cars supplied by the Company have a standard equipment (known as the VM equipment) of electric starting and lighting (6 lamps), aluminium instrument board fitted with speedometer, clock, lamp, switchboard and gauges, five detachable wire wheels and five Dunlop Magnum tyres, bulb horn and electric horn, full tool kit, and number plates. When a chassis only is delivered, the equipment included in the chassis price is the same minus number plates.

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VARIATIONS OF STEERING RAKE AND SPRINGS The "D" type chassis is built for three types of body :

- (1) Open body with torpedo steering rake and open car type springs.
Order—Chassis D open.
- (2) Closed body to be driven by chauffeur, with upright steering, and closed car type springs. *Order—Chassis D chauffeur closed.*
- (3) Closed body to be driven by owner, with torpedo steering rake, and closed car type springs. *Order—Chassis D owner closed.*

The following particulars of standard open body dimensions will be found useful:—

Width of front door opening	19 inches.	Leg room, front seats to pedals	23 inches.
Width of rear door opening	20½ inches.	Leg room, rear seats to footboards	25 inches.

WITH THIS MODEL A GUARANTEE FOR THREE YEARS IS GIVEN

D (EXPORT TYPE) CHASSIS, 25 H.P.

This model is of the same design as the 25 h.p. model described in the foregoing pages, and therefore possesses the great structural strength and general reliability which are necessary for constant use on bad roads, and travelling long distances in countries where assistance is seldom within easy reach.

COOLING The adequacy of the Vauxhall cooling system, described on page 21, is attested by wide experience, including hill-climbing of the severest kind in the Balkans and among the Italian Alps.

GEAR RATIOS The gear ratios enable the car to cope with the most trying conditions, whether of road surface or gradient, or the two combined.

ACCESSIBILITY All parts requiring attention are easily got at and are so designed that they give the least possible trouble.

SPRINGING The springs are specially adapted for overseas use, the leaves being thicker, more in number, and slightly cambered.

CLEARANCE About 9 inches under the rear axle. It may be mentioned that Vauxhall cars with this clearance made the record runs :

Melbourne—Adelaide (580 miles). Melbourne—Sydney (575 miles). Brisbane—Sydney (650 miles).

GUARANTEE As some indication of the confidence with which the manufacturers are able to recommend the 25 h.p. EXPORT TYPE Vauxhall to overseas motorists, it is pointed out that, as with the English model,

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