AFTER-WAR MODELS

SOME FURTHER NOTES UPON DETAILS

THE 25 H.P. VAUXHALL FOR 1919

BY ARTIFEX

To anybody who knew the Vauxhall in 1903, a visit to the new works of Vauxhall Motors, Ltd., at Luton, is an experience as illuminating as it is interesting. The first cars of this name were built, as a "side line," by the Vauxhall and West Hydraulic Engineering Company. Mr. Percy Kidner, of the engineering staff of that firm (well-known to marine architects), was keen on the early models, drove one in the first 1,000 Miles Trial, and did so well that his performance attracted the notice of a friend of his own age—somewhere in the early twenties. This friend was Mr. Leslie Walton, who is to-day chairman of Vauxhall Motors, Ltd., and is bracketed with Mr. Kidner in the joint managing directorship. Mr. Kidner presides over the engineering, Mr. Walton over the commercial, end of the business.

These two young men pooled their resources and bought out the car department (of which there was very little to buy, though its purchase cost them every bean they had!) in about 1907. The Vauxhall of 1907 was known as a 12-16 h.p. car, with a four-cylindered engine measuring 92 by 96 mm. Of its year it was very good indeed, in fact a 1907 chassis is doing excellent work as a station 'bus at Luton today.

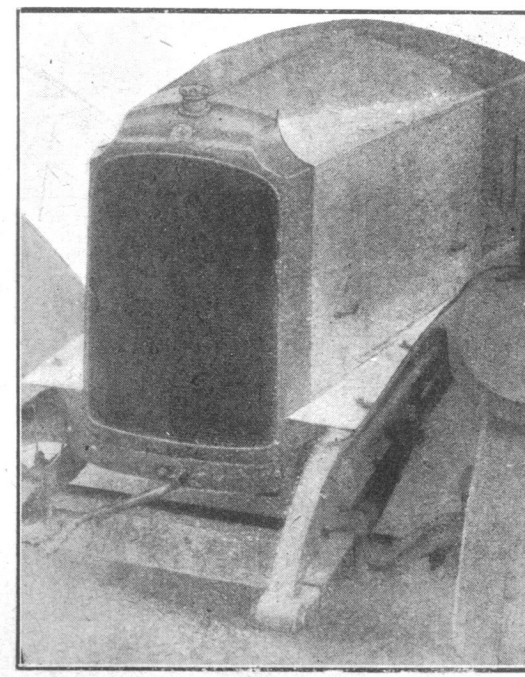
But, good as were the original 5 h.p., 7-9 h.p., 12-14 h.p., and 12-16 h.p. models of 1903-1907, the Vauxhall first began really to shine when the pioneer of the 90 by 120 mm. four-cylindered type made the most meritorious performance in the 2,000 Miles International Touring Car Trial of 1908.

This model, the first with a monobloc engine, was also the first that embodied any work of Mr. Laurence H. Pomeroy, the gifted young fellow on whom Messrs. Kidner and Walton placed such reliance that—though he was only of their own age, and quite unknown—they gave him his head. He gave them a car, and the combination of Mr. Pomeroy in the drawing office, Mr. Kidner in the works, and Mr. Walton in the commercial offices (backed, in each case, of course, by well-selected staffs) has given us increasingly good cars year by year, and shown the world that a good car, well marketed, will always sell well, and as numerously as it can be built.

Having attained considerable reputation in both "club" and "open" hill climbs in 1908, the company enjoyed their first racing successes (in the ordinary acceptance of the term—racing against cars as well as clocks and road-gradients) in 1909, a single 90 by 20 "four" gaining three "firsts," two "seconds," and three "thirds" at the Brooklands August meeting of that year. This car, by the way, was driven by an amateur owner, Mr. Rudolph Sells (who is now a full corporal in H.M. Middlesex Regiment, somewhere in France).

From that win, other drivers, on other Vauxhalls, won event after event on road and track, at home and abroad.

But although the company went all-out on a speed programme, they never lost sight of, or provision for, the fact that one can sell only one sports model for each hundred of the cars bought by people to whom a car is simply a mechanically-propelled carriage. By this the writer means that their speed work was never for a week permitted to divert their minds from the less interesting but more solid business of life. That is why Vauxhalls have never had "a bad year." There is no Vauxhall that is mentioned *sotto voce*.

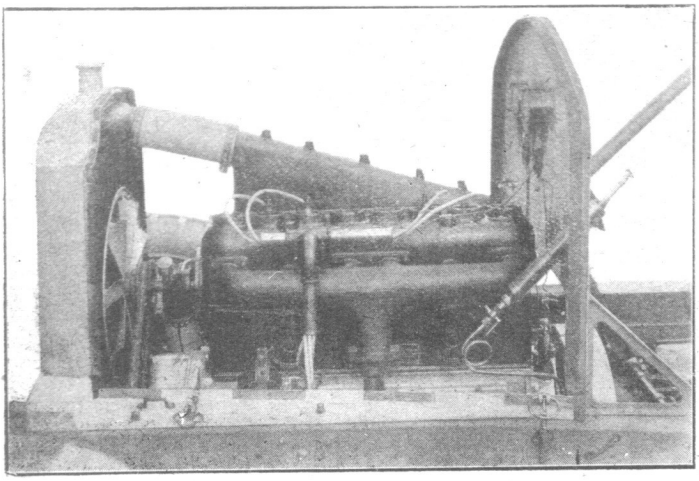


The radiator of the new 25 h.p. Vauxhall

And the equipment—ever developing, ever extending, so that one finds fresh plant to admire at almost every visit—now available, after four years of duty O.H.M.S., suggests that even now we have not seen the "best best" of this company's production.

The 25 h.p. Vauxhall has a four-cylindered motor with bore and stroke of 95 and 140 mm., rated nominally as of 25 h.p., and by the Treasury formula as of 22.4 h.p. The combustion-space has a volume of 4 litres. The four cylinders are cast in a single block, following Vauxhall practice ever since 1907. Externally the motor is notable by its smoothness of appearance, although this cleanliness of outline is attained at no penalty in the matter of real, as distinct from seeming, accessibility.

Viewed cursorily, there is little to distinguish this engine from several others, but as soon as one gets down to detail the merit of its design becomes evident. The water-connection, from jackets to radiator, is gratifyingly sound, solid and free from obstruction, as it has been for ten years past. In fact the clearance internally is so ample that the cooling might well be effected by convection alone (as for many years it was). Actually a belt-driven pump is employed to assist the circulation—the belt being that which also gives motion



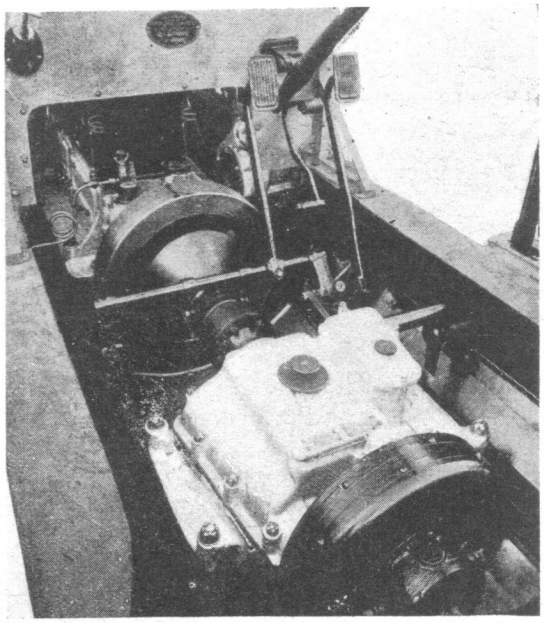
The near-side of the engine

to the spindle of a hefty fan mounted behind the handsome cellular radiator.

A characteristic example of detail-merit is found in so simple a matter as the method of securing the valve doors, or cover-plates.

The fastening employed is a threaded bolt, on to which screws a very large disc with a knurled edge, the diameter of the disc being well above 3 inches. That is a much more satisfactory fastener than is the customary (and fiddling) little brass lever, so easily —so almost inevitably !— dropped down into the under-shield.

Enjoying pressure-feed, the White and Poppe carburettor is mounted well up on the right-hand side of the engine. Incidentally, the carburettor has connected to it an air-regulator controlled from the steering-wheel. The magneto, anchored on the left-hand side of the motor, is not mounted so high as is the carburettor, but as the type used is absolutely oil and water-proof, and it can be unshipped by loosening a steel strap, as usual, there is no disadvantage attached to its comparative lowness of mounting.



The control details, gear-box and foot-brake

The engine is oiled positively, through its drilled crank-shaft, by the long-known plunger pump, and the quick-draining sump-plug is, of course, retained. As to the rest of the job, oil lubricators, of a ball-valve pattern, both non-leaking and dust-proof, are employed wherever they can be efficiently, so that the number of screw-down greasers is reduced to a real minimum.

The petrol tank, slung at the rear end of the frame, holds twelve gallons of fuel, directed to the carburettor under pneumatic pressure. An electrical engine-starting and lighting set is an item of the standard equipment. Other items are speed-indicator, clock and five detachable wire-spoked wheels and tyres.

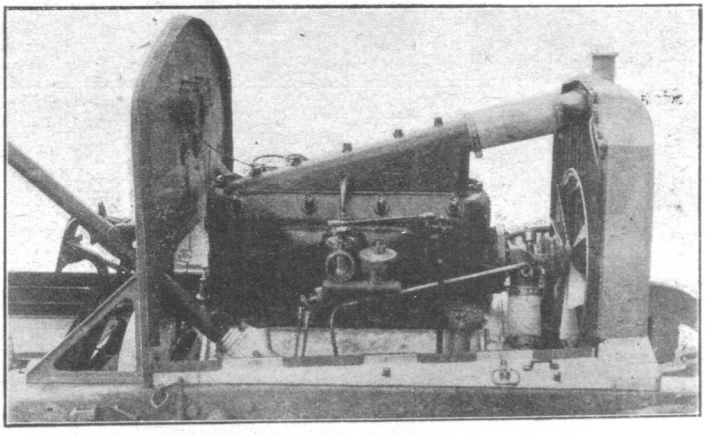
Our illustrations of the motor show clearly (on the right-hand side) the hot-air pipe from the water-uptake to the carburettor, the compression-cocks opposite the valve ports, the directness of the induction manifold, the substance of the carburettor and magneto control-gear (every joint being of ball-and-socket pattern, and therefore delightfully responsive to the control levers on the steering wheel), the convenience of the sump-filler, the liberal width of the belt driving water-pump and fan, the felt-buffered aluminium deck-plates on which the lower edges of the bonnet rest, the steel angle-brackets supporting the aluminium dash, and the robustness of anchorage—in the dash—of the steering pillar.

The lighting and starting dynamo is mounted on a platform at the rear end of the crank-case on the off side of the motor, the starter doing its work through teeth machined on the forward edge of the flywheel.

On the left-hand side of the motor will be noticed the workmanlike housing of the ignition wiring, the massive screw-discs securing the valve-doors, the directness of passage for the burnt gases from the exhaust ports into the manifold, the auxiliary air-pump used to give a useful head of air for starting purposes, and two of the little helices consistently introduced into all lengths of piping which are subjected to vibrational strains.

Both views of the engine reveal the raw-hide plaited into the forward ledge on which the bonnet rests, and the woven fabric used to "buffer" the rear resting-ledge of the bonnet on the dash. Little things, these, but this use of hide, felt and fabric buffers all over the chassis is typical of the nicety of detail-study which enables the Vauxhall to start and remain a car free from offensive chafings and rattles. Both engine-views also illustrate the pressure gauges on the dash—one for the oil circuit, and the other certifying the air-pressure under which the petrol is fed.

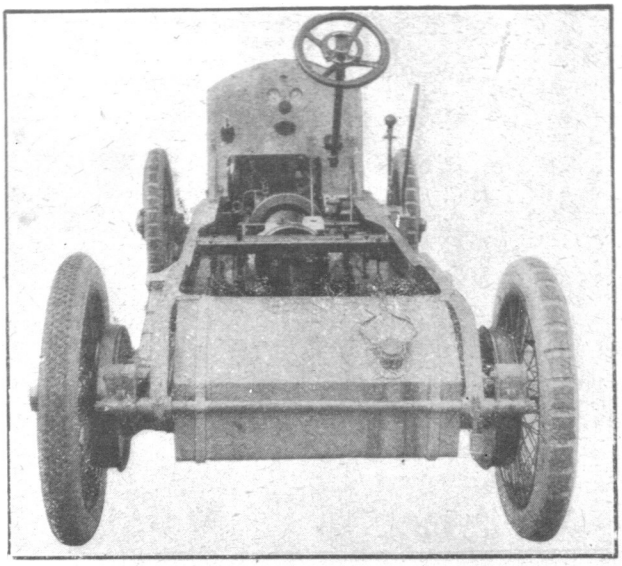
Our fourth illustration is of the chassis as seen from the rear of the transmission brake. The dash is very clear of gadgets—pleasingly so. The speedometer, clock.



The motor, seen from the off-side

is carrying its body, passengers, fuel, water and oil, they are as nearly dead flat as makes no odds.

The new fore-axle is an I-beam forging of high-nickel steel, on the ends of which the steering pivots are so canted as to give the lightest of steering. They are completely encased, oil-lubricated and furnished with such bearing-surface as to be practically wear-free. The steering connections are so devised as to leave the steering-wheel undisturbed by any inequalities encountered by the road wheels, at no matter what pace. The steering is of the worm-and-wheel pattern, embodying a thrust-block of almost marine depth or length, nicely adjustable and easily (and cleanly) greased.



A general view of the chassis, looking forward

The rear road wheels are carried by the sleeves of the axle, so that the driving-shafts perform merely torsional duty, and can be withdrawn without the use of a jack. All four axle-springs are of the semi-elliptic pattern, abnormally long, wide, thin and numerous in the leaves, and slow in camber.

They are—as to the whole four—shackled fore and aft, with real freedom of motion and provision for positive (though oil-effected) lubrication. The material used is a Pomeroy-formula silico-manganese steel.

The road wheels are Rudges, 880 by 120 mm. Between axle-centres the frame tapes 130 inches. The tank carries 12 gallons (which we can reckon to suffice for 300 miles of open-road driving), the bright parts are nickeled, and the price of the chassis, with standard equipment and the manufacturer's three-year guarantee is £.....

Fig. 9 shows the chassis as a whole, and gives in detail the up-sweeping of the frame, the slinging of the fuel-tank, the fine depth of web of the side-members of the frame, and—dimly—the staunchness of section of the tubular cross-members. There are difficulties of lighting which—besetting mid-December photography, in the best of circumstances—contend against adequate portrayal of the sterlingness of this job. Those difficulties will not exist when the 1919 Vauxhall may be illustrated freely. But our present pictures give a good idea of the merit of the chassis. It is the handsomest the writer has seen. Lacking nothing of the prettinesses of the drawing-board, it simultaneously embodies the teachings of many season's successful speed-work on track and road, tens of thousands of miles' touring in the care only of pleasure-bent owner-drivers, and—on top of that little lot—four years solid slogging on the busiest fronts of the present (or does one now say "recent"?) War.

No Tank is tougher; no battleplane is fleeter (relatively, and in potentiality); no light cruiser is smarter to the eye; and no current chassis is more thoroughly able to show how ably the much-reviled "pore, workin' man" of the British Isles can deliver the goods, if he is well staffed, honestly paid and decently treated.

HERE·AND·THERE

THE Overseas Department of Trade of the Foreign Office and Board of Trade states that a cable received from India announces the removal of the prohibition of the importation of motor cars into India. The removal takes effect immediately.

IT may be recalled that in December, 1916, Major W. G. Wilson was elected to Honorary Membership of the Institution of Automobile Engineers. It is now possible to state that this honour was conferred by the I.A.E. for Major Wilson's services in connection with the design of "Tanks," thereby showing an early recognition of his work in this connection.

THE Minister of Munitions has revoked the Lorries and Trailers (Returns) Order, 1917, which required returns from all persons (excepting railway companies) possessing steam driven highway lorries or trailers.

MR. HUGH LUMSDEN, of Lickbyhead Castle, Aberdeenshire, had a miraculous escape from death the other day, his car skidding on an ice-bound road and falling 90 feet.

THE Leicestershire A.C. is considering the question of amalgamating with the Leicestershire Aero Club, it being felt that in view of the importance of Leicester's geographical position, everything should be done locally to encourage commercial aviation.

THE Leicestershire A.C. has decided to ask the County Council to take up the matter of improving the road at Six Hills, in connection with their reconstruction scheme. This is the trunk road from the Humber to Coventry.

A MUNITION worker of Felsted, who was summoned at Braintree for keeping a motor-cycle without a licence, explained to the Bench that he was under the impression that as he used the machine to ride to and from munition work, a licence was not necessary. The Chairman said the Bench believed a genuine mistake had been made and imposed a fine of 10s.

IT was certainly hard luck that a special constable after having had the lamps stolen from his car while on duty on Armistice night in Trafalgar Square, should have been summoned for not having two front lights on his car. It is almost needless to say that the case was dismissed.

A MOST unusual case was heard at Falkirk the other day, a fire engine driver being summoned for the reckless driving of a motor fire-engine. Sheriff Moffat imposed a fine of £10, with the alternative of thirty days' imprisonment.

IN fining a taxi-driver £2 and costs for using abusive and insulting language, Alderman Sir John Baddeley, at the Guildhall, said it was a bad case; taxi-drivers at the present time seemed to imagine that it did not matter how they treated the public.

IN a case heard at Mansfield the other day, when a driver was summoned for not having a red rear light on his car, the police superintendent said that motorists appeared to have an erroneous idea that the Order regarding the rear light had lapsed. The defendant, who did not appear, was fined 25s.