

1951 Cars.

THE international fame of the Alfa Romeo Co. was founded upon the superb racing performances of the celebrated twin-camshaft P.2 model which, introduced in 1924, continued to win events of international importance up to 1930. The Italian G.P. of 1932 saw the introduction of the even more famous P.3 Monoposto model, which was beaten only twice in the ensuing two seasons' racing.

From 1930 up to 1938 the normal production cars of the celebrated Milan works bore a very close resemblance to the racing models, both as exemplified by the double-camshaft layout, the use of cylinder blocks with integral heads, and the employment of a supercharger on a high proportion of the cars sold. In the period 1935-8, moreover, the company experimented with many different suspension systems on their Grand Prix cars.

The 1947 chassis was fitted with a 6-cylinder unsupercharged twin o.h.v. engine with a detachable head and a capacity of 2½ litres, and it has formed the sole post-war production model. Available in two chassis lengths (9 ft. 10 ins. and 8 ft. 10 ins.), the larger car has had 95 h.p. available, whereas on the shorter sports model the engine gives 105 h.p. The standard bodywork on the long chassis consists of a four-seater two-door saloon with a dry weight of 30.4 cwt., giving, therefore, a power/weight ratio of 66 h.p./ton and a displacement factor of 2,350 litres per ton-mile on top gear. On the same ratio, a road speed of 95 m.p.h. can be obtained.

The Alfa Romeo Co. is concerned with the production of commercial vehicles, motor buses, compression-ignition engines, and aero engines and, due largely to the high costs of production, the output of the automobile division has, since the war, been strictly limited. In the past year a major reorganization has been initiated under the wise and energetic leadership of the newly appointed managing director, Dott. Ing. Antonio

Alessio, and the new 1.9-litre car, which is on view at the Paris Salon, is one of the first fruits thereof.

Many technically interesting features are shown in a large drawing on this page and will be discussed later, but it is desirable first to make some comment on the general concept of the vehicle, both in its performance and production. The engine output per litre has been increased slightly (2.5 per cent.), as compared with the existing six-cylinder car but, largely on account of the simplification of many parts and from the use of a combined body structure and frame to give the required stiffness, weight has been reduced very sharply (30 per cent.) and the power/weight ratio has, in consequence, increased to 74 h.p./ton, despite the reduction in engine size.

Similarly, the wheelbase has been reduced to 8 ft. 8 ins., but by reason both of the reduced length of the engine and the fact that it is mounted with No. 2 cylinder on the axis of the front wheels, ample leg room is provided. A maximum road speed of some 90 m.p.h.

The 1.9-litre Alfa Romeo

A High-performance 6-6 Seater with a Planned Output of 500 per Month

EXPERIMENTAL: The general aspect of the new Alfa Romeo is shown in this photograph of the prototype car which recalls itself as a full 5½ inches in the modern style. The front end has been substantially modified since this photograph was taken last May.



should be available, and it will from the foregoing be apparent that, although this new car will be considerably cheaper, both to buy and to run, than the previous model, it will have a better all-round performance.

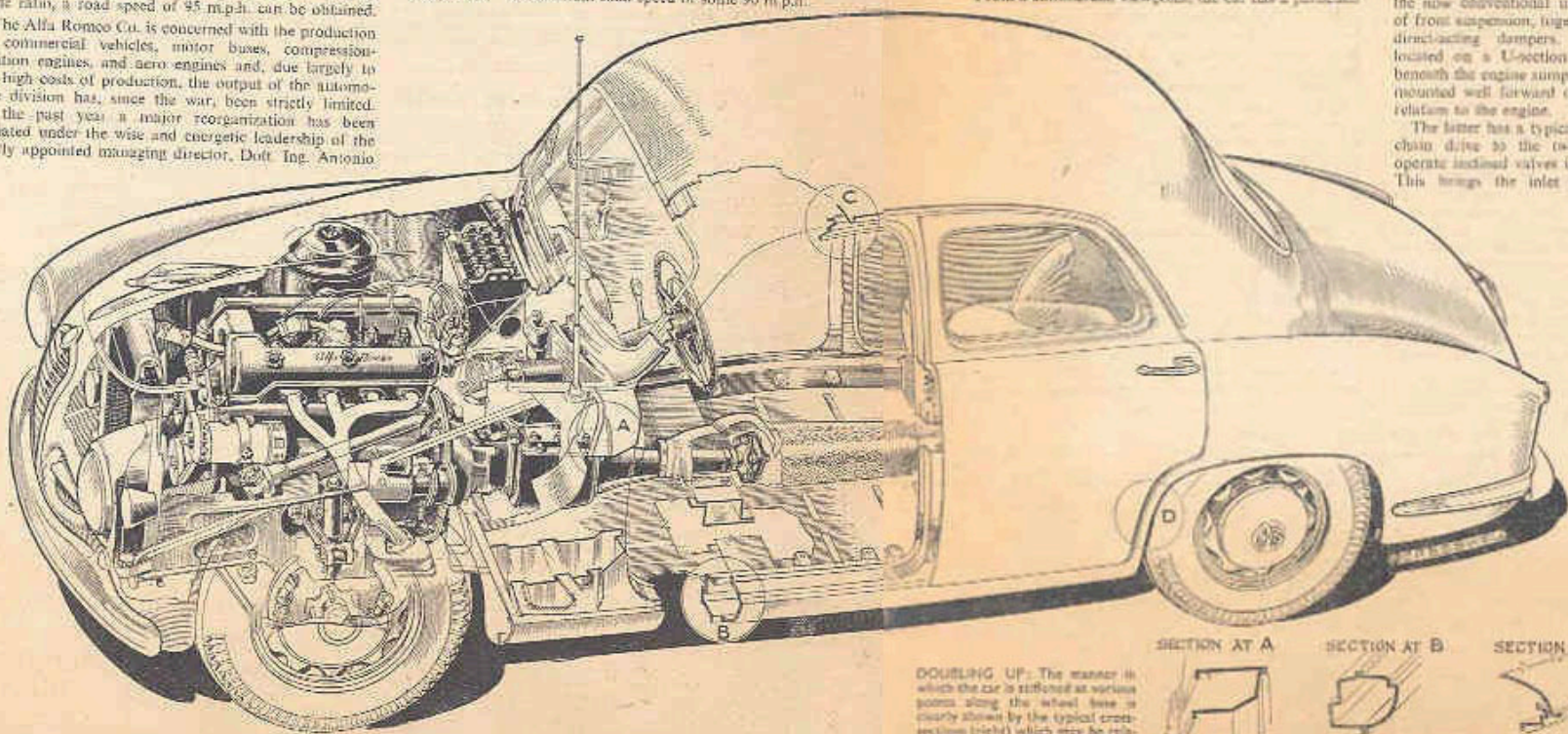
Judged on the basis of litres per ton-mile, the hill-climbing ability on top gear should be improved by 20 per cent., whilst cruising speed at 2,500 r.p.m. has actually been raised from 60 to 63 m.p.h.

From a commercial viewpoint, the car has a particular

interest in that, with the help of Marshall Aid, the production equipment of the factory is being entirely rehabilitated, and automobile output will be increased more than tenfold to an anticipated 500 cars a month, a considerable proportion of which will obviously find ready acceptance in the export markets of the world.

Turning now to the mechanical features of the car, reference to the perspective drawing will indicate that Dott. Ing. Neri and his engineering team have adopted the now conventional unequal-length wishbone system of front suspension, together with open coil springs and direct-acting dampers. The suspension units are located on a U-section of the cross-member passing beneath the engine sump, the Gullay radiator core being mounted well forward of the wheels and low down in relation to the engine.

The latter has a typical Alfa Romeo appearance with chain drive to the two overhead camshafts, which operate inclined valves in the detachable cylinder head. This brings the inlet and exhaust manifolding on



POWER AND WEIGHT: The twin overhead camshaft two-litre four-cylinder engine of the new Alfa Romeo develops nearly 60 h.p., but despite a long wheelbase the dry weight has been held to little over a ton. This notwithstanding, extreme rigidity of the structure has been obtained by an ingenious co-ordination of box sections in the combined body and frame assembly. Coil springs are used for both front and rear suspensions but at the rear there is a conventional live axle.

DOUBLING UP: The manner in which the car is stiffened at various points along the wheel base is clearly shown by the typical cross-sections (right) which may be related to the ringed portions of the main drawing.

