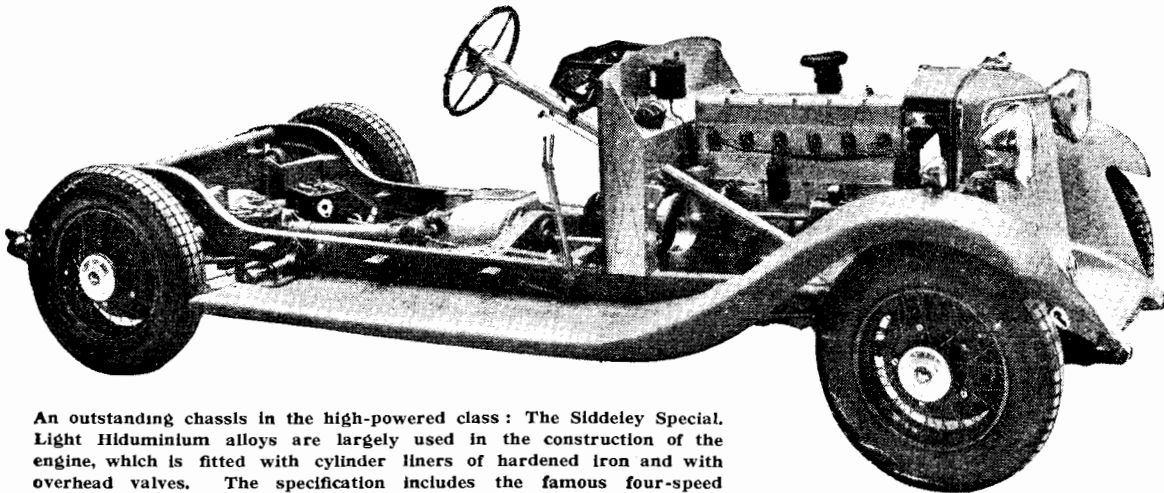


# The ARMSTRONG SIDDELEY RANGE

A Fine Series of Six-cylinder Chassis Built to High Standards and Each Fitted with the Self-changing Gearbox. Many Practical Ideas in Coachwork and Equipment



An outstanding chassis in the high-powered class: The Siddeley Special. Light aluminum alloys are largely used in the construction of the engine, which is fitted with cylinder liners of hardened iron and with overhead valves. The specification includes the famous four-speed preselective self-changing gearbox.

It has never been the practice of Armstrong Siddeley Motors, Ltd., to introduce seasonal models and changes of price. Improvements are effected from time to time, instead of being held back, and although by October, when the Show comes round, there may be a number of changes in small details when the cars are compared with those of a year ago, there is no hard-and-fast line of demarcation. That this is distinctly an advantage to the purchaser is appreciated by most motorists of experience. Consequently, in the following review of the 1934 models of the Armstrong Siddeley range we shall enumerate detail alterations and improved features which have been effected from time to time since we last described these cars.

There is undoubtedly an air of distinction about any car produced by Armstrong Siddeley Motors, Ltd.; a certain dignity, a refinement, a suggestion of power and comfort.

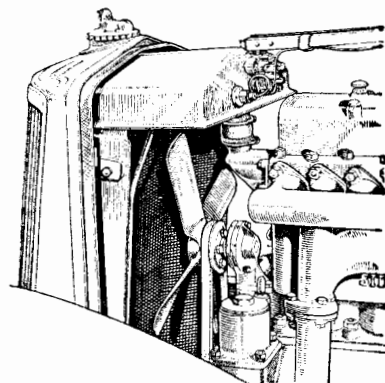
The coachwork conveys a subtle air of luxury, and is, indeed, so well thought out and finished that it affords a very high standard of ease of travel for driver and passengers alike. The sturdy construction of the chassis gives one confidence in the car, while the preselective gearbox which was pioneered by this concern provides many advantages and is so beautifully constructed that its reliability is never in question.

### Built for Long Service

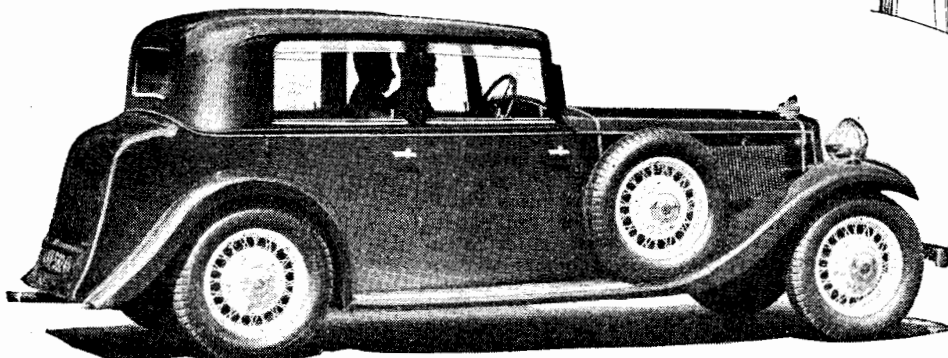
Whether one considers the smallest car in the range, the Twelve, or the largest, the Siddeley Special, introduced last year, or, again, the models that come in between, each is an outstanding car in its class. They are cars built for long service and freedom from trouble; their well-deserved reputation in these respects is reflected in the comparatively high prices which

they command upon eventual resale.

During the spring and summer of this year we have been using a 20 h.p. Armstrong Siddeley sports saloon which has elicited considerable admiration as a car of handsome appearance and has provided those who have travelled in it with silent and luxurious motoring, such as one usually associates with cars costing a good deal more. It is light to handle and with powerful brakes, effortless gear-changing, supple suspension and well-planned seating; one can drive all day without the



(Above) The front part of the Siddeley Special engine, showing the fan mounting and oil filter container.



(Left) A very handsome car: The Siddeley Special standard sports saloon.

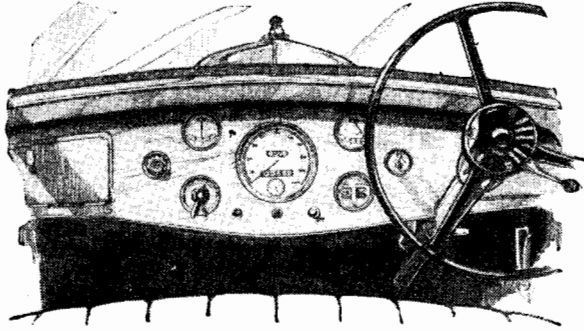
least suspicion of tiredness. In a temperature well below freezing point there is an entire absence of draughts, and yet so well is it ventilated and the heat from the engine so completely insulated that there is not the least suggestion of stuffiness when the thermometer soars over the eighties.

one is now aware, this gearbox has proved an outstanding success, and, furthermore, has been responsible for initiating a whole series of other gearbox developments during the past few years.

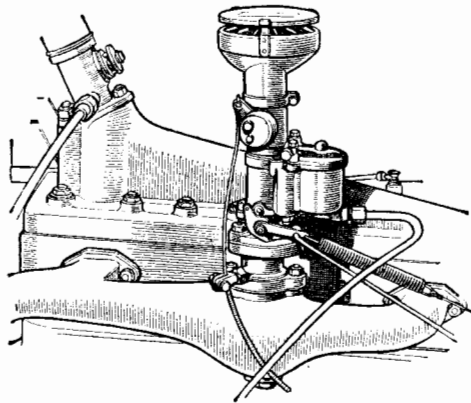
It was also in 1928 that the Armstrong Siddeley Company introduced the 12 h.p. model, which was the first small

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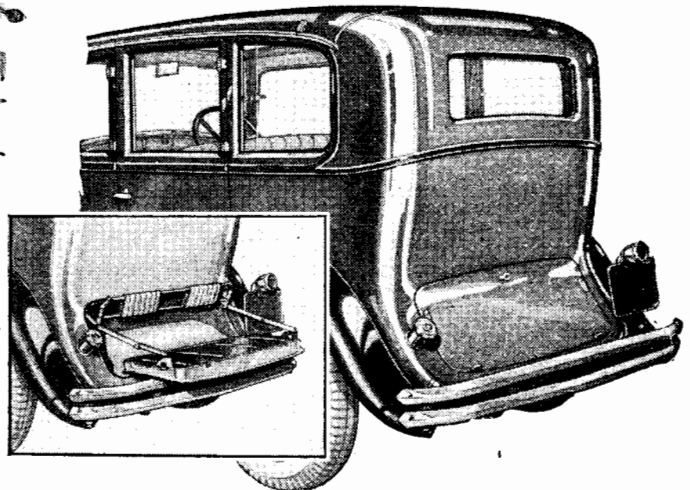
Another outstanding feature of Armstrong Siddeley coachwork is the provision of a full-width front seat in place of the more usual pair of bucket seats. This single seat is, however, so shaped as to give individual support to the driver and passenger, and is provided with a folding armrest at the centre.



The new fascia of the "Twenty"; note the large dial, combining a Jaeger speedometer and clock.



(Left) A new feature of the Twelve: a Claudel Hobson downdraught carburetter which feeds passages in the cylinder block through an exhaust-heated connection.



As armrests are also fitted to the front doors, the driver can hold the wheel with a support under each of his elbows. A similar triple armrest system is, of course, provided for the rear seat. The front compartment is quite free from obstruction, because the gear lever is placed on the steering column and the hand brake is mounted within the scuttle. Triplex glass is standardized.

Returning to matters of chassis construction, one notices when visiting the works that the car components are built side by side with the famous Armstrong

The range of models available for the 1934 season consists of the Twelve, the Fifteen and Long Fifteen, the Twenty and Long Twenty, and, finally, the Siddeley Special. Each of these models is fitted with a six-cylinder engine, with the famous self-changing gearbox providing four forward speeds and a pre-selective control, with mechanical four-wheel brakes incorporating servo shoes of exceptional efficiency and with a special system of construction in which the gearbox, torque tube and back axle are built up to form a single unit braced by diagonal ties. For some time the downdraught type of carburetter has been fitted to the larger Armstrong Siddeley engines, and this has now become general, a Claudel-Hobson instrument of this variety being fitted to all 1934 models. At the same time the former combined control for the strangler and slow-running throttle setting has been discarded in favour of a separate means for operating each of these devices.

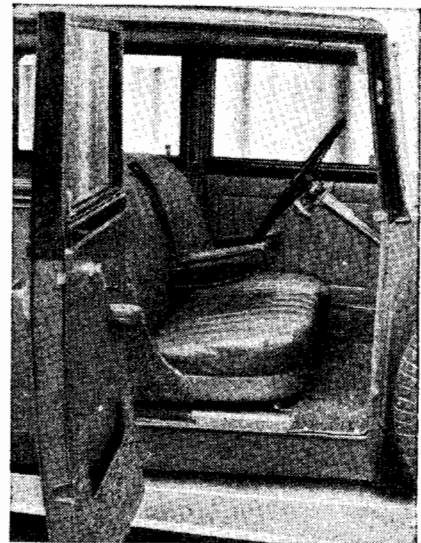
Highly Practical Features

As in former years, these Armstrong Siddeley chassis display many highly practical features. It was indeed characteristic that the engineers of this concern should be the first fully to recognize the merits of the self-changing gearbox, which the Armstrong Siddeley Company pioneered in 1928. As every-

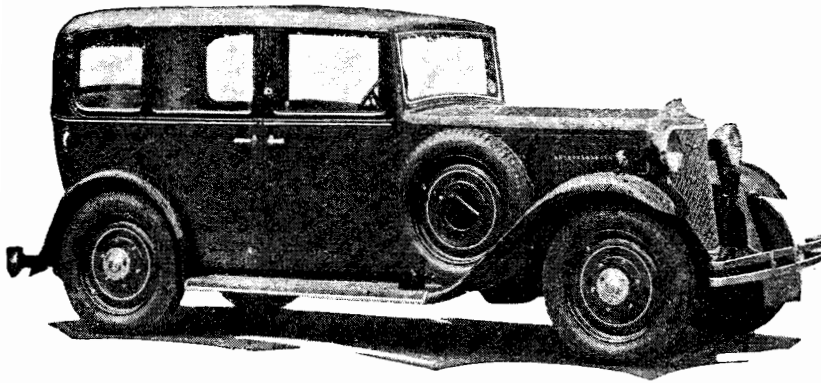
six-cylinder car to become popularized. Other innovations which have since been widely adopted after introduction by the same concern include centralized chassis lubrication, the hidden luggage grid, which forms a scarcely distinguishable part of the rear panel when closed, and the standardization of jacks permanently fitted to the axles and operated by a detachable handle (D.W.S. system). All these features, together with the bold V-fronted radiator, continue to characterize the latest Armstrong Siddeley models.

Well-made Coachwork

The coachwork with which these cars are fitted deserves special mention; it is extremely well made, as was emphasized in an article published in *The Motor* not long ago, is planned on thoroughly practical lines with a view to providing real comfort for the occupants, and can also lay claim to a dignified and tasteful appearance. The designers have not forgotten that, in addition to giving the driver a seat which he can occupy for hours at a time without fatigue, it is essential that his range of vision should be unobstructed. To this end special methods have been developed for "slimming" the windscreen pillars without sacrifice of strength, while the upper and lower edges of the screen are arched in curves, which make a surprising difference to the range of view.



The Armstrong Siddeley triple armrest system as exemplified by the front compartment of the 12 h.p. sports saloon.



The Six-light coachbuilt saloon on the Long Fifteen chassis is a particularly dignified and roomy car which costs £435, or can be had for £447 with special equipment as illustrated.

Siddeley aero engines, and are subjected to the same rigid methods of inspection. An outstanding example of the influence which this characteristic exerts is found in the Siddeley Special chassis, which was introduced nearly a year ago, as the

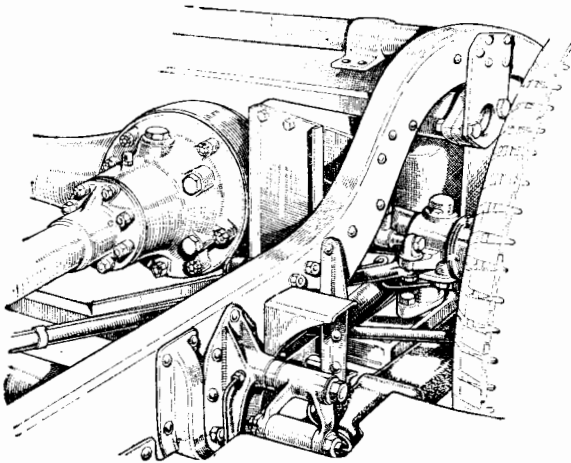
of the wet type, i.e., the external surface of the liner is in direct contact with the water in the jacket. The upper end of the liner is held in position securely, and at the lower end a diaphragm permits a breathing action

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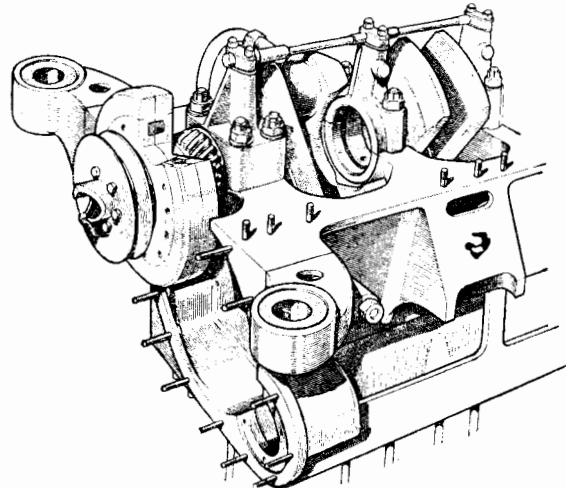
cooling of the alloy causes it to contract upon the seatings, and the grip of the screwed parts is made even more secure by finally expanding each ring with a tapered mandrel. Phosphor bronze sockets for the sparking plugs are fitted to the head by similar processes, these being also dowelled to prevent risk of turning when the sparking plugs are removed. The valves, incidentally, are made of stainless steel and are operated by push-rods.

A Fine Seven-bearing Crankshaft

The crankshaft is a fine piece of work and runs in seven large bearings. The long bolts securing the bearing caps extend upwards through the flange provided on the cylinder block, and so also



A "close-up" at the rear end of the Siddeley Special chassis, showing the strong spring shackle and mounting, the pipes of the centralized lubrication system and one of the permanently fitted jacks.



An inverted view of the Siddeley Special crankcase with the sump removed to display the robust counter-balanced crankshaft and main bearings. Note the vibration damper.

embodiment of the engineering knowledge which Sir John Siddeley has accumulated in the course of his long and distinguished career in the motorcar and aircraft industries. It is scarcely necessary to point out that such a car could only be built in a factory where the technical direction, the skill of the workpeople and the tools available all surpass ordinary standards.

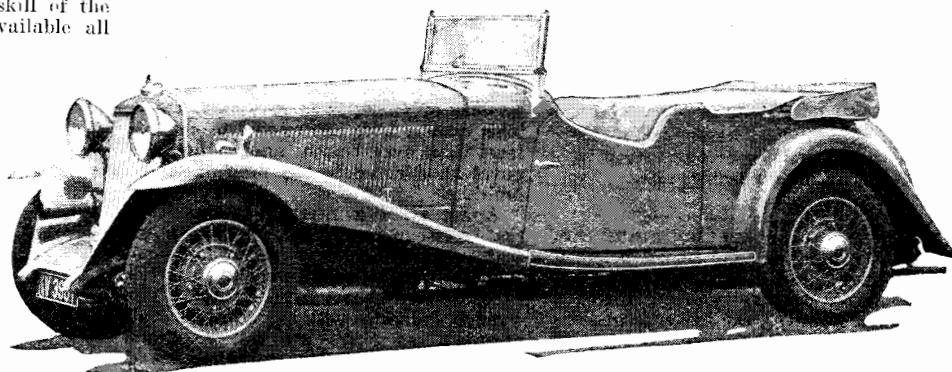
A feature of this chassis is the extensive use which has been made of Hiduminium light alloys. This material, for example, is used for the cylinder block, cylinder head, crankcase, sump, pistons and connecting rods. To make this possible, special methods are necessary for the fitting of separate liners and valve seatings, and here aero engine practice is largely used.

The cylinder liners are of Bricast hardened and tempered cast-iron, and are

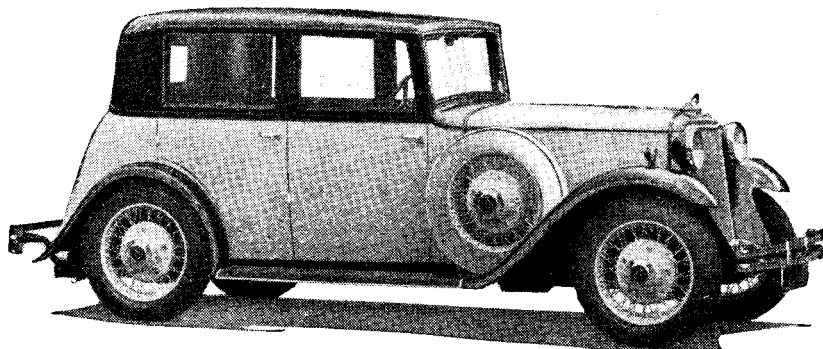
which makes allowance for expansion at working temperatures.

Valve seatings, consisting of rings of aluminium bronze, are screwed into the head after this component has been expanded to a slight extent by heat. The

serve to secure this part to the crankcase. The crank webs are balanced, a vibration damper is fitted at the front end, and, as another means for ensuring even running, the surfaces of the cylinder heads and ports are polished.



An attractive example of the Siddeley Special range: the open tourer, by Vanden Plas (England), 1923, Ltd., which costs £950, including special equipment.



The 15 h.p. Armstrong Siddeley sports saloon on the shorter chassis: a four-window model of pleasing appearance. The price is £388.

The transmission system of this notable chassis follows the usual Armstrong Siddeley practice, with a four-speed self-changing gearbox and a spiral-bevel rear axle mounted at the ends of the torque tube. The chassis frame is a low and rigid structure, which is braced amidships by a double cross-member and diagonal struts.

It was, of course, with this Siddeley Special chassis that Mr. W. F. Bradley and his daughter carried out a survey

of the London-Istanbul international road route for the Automobile Association a few months ago. This involved covering 5,000 miles in 16 days. Here it is opportune to mention that Messrs. Armstrong Siddeley have always made full use of sporting events in England and on the Continent as a means for thoroughly testing the performance of their cars. For example, in 1932 three 20 h.p. models were driven in the International Alpine Trials, and each was

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awarded a prized Coupe des Glaciers.

At Olympia last year the Siddeley Special made a last-minute appearance in chassis form. Since that time a number of these cars has been put into service, with results which have fully justified the favourable opinions which were passed upon the new models by experts at the Show. The normal wheelbase is 11 ft. in length, but for carrying particularly long coachwork this can be extended to 12 ft. The range of bodywork includes an open tourer by Vanden Plas (England), Ltd., at £950 complete, a standard sports saloon at £965 and a Hooper enclosed limousine on the long chassis at £1,360. These prices all include the special equipment comprising permanently fitted jacks and bumpers.

A full list of Armstrong Siddeley prices was published in *The Motor* last week (September 5), these showing slight increases over the 1933 figures.

THE PARIS SALON—ADVANCE NEWS  
A Very Interesting Show in Prospect

**H**ARD times in France have caused the Salon Committee to make drastic changes in their arrangements for this year's show, which opens on Thursday, October 5. The show promises, nevertheless, to be of exceptional interest. When it was announced some time ago that the "Salon de Poids Lourd" (heavy vehicles)—ordinarily a separate show—would on this occasion be combined with the car show, many Salon habitués imagined

building for the display of the heavy brigade. Few people, however familiar they may be with the Grand Palais, realize that beneath the floor are lofty cellars with a surface area of 6,000 square metres, or three-quarters that of the great nave itself. This vast subterranean world will be lighted and decorated with that skill and good taste which are characteristic of French exhibitions. Industrial vehicles will be allowed on the ground floor only as stripped chassis, in which form they will not clash with the surrounding exhibits. They are, moreover, to be confined to those stands at the sides of the main hall occupied in former years by American exhibitors.

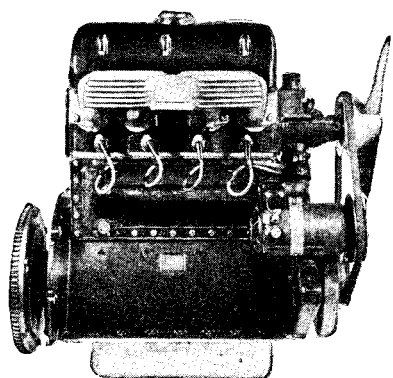
Open-up to 11 p.m.

Another novelty this year will be the possibility of an after-dinner visit to the show, which will remain open until 11 p.m. each day, including Sundays, although the accessory galleries are to keep to the old closing hour of 6.30 p.m. The scheme of decoration and standard name-boards is being carried out in white and gold, whilst the old idea of a great canopy over the main hall, which has not been seen for a number of years, is to be reintroduced. This canopy is to be dropped to a lower level than ever before, and will give a novel appearance to the interior of the building.

Apart from a further falling-off in the American contingent, which, even at last year's Salon, was reduced to one-quarter of its original strength, the list of exhibitors shows little change. The French industry will be seen in full strength, as there are no defections amongst French constructors, in spite of difficult times. Great Britain, Italy, Germany, the United States and Bel-

gium will also be represented, as usual, and the Paris show will retain its peculiarly international character.

French manufacturers are invariably shy of exposing their programmes until the eve of the Salon, but many entirely new models are known to be in preparation. A particularly interesting Salon exhibit will be the new four-cylinder Delage, first described in *The Motor* last Tuesday. In this announcement we inadvertently referred to the Delage D.8 (straight-eight) as a 3-litre model, whereas the engine capacity is, of course, actually 4 litres as heretofore.



The neat four-cylinder engine of the new Delage chassis first described in "The Motor" last Tuesday.

that the most exquisite Continental cars for 1934 would be sandwiched between fire-engines and municipal lorries. Those whose duty it is to organize the affair are, however, far too wise and experienced to permit anything of this kind.

It has been decided to utilize the enormous basement of the Grand Palais

**The Motor**  
and the **SHOW**

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**First Out With**

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Critical Survey	} <b>OCT. 17</b>
of Olympia - - -	}

\*Published on a Wednesday, one day later than usual, with full report.

The Third Show Number, dated October 17, will be the greatest of all Special Show Issues.