

The Autocar

PREMIER MOTORING JOURNAL OF THE WORLD

FOUNDED IN THE YEAR EIGHTEEN HUNDRED AND NINETY-FIVE

EDITORIAL

A POPULAR PEERAGE

Well-deserved Honour for Famous Car Manufacturer

ONE of the most romantic careers of modern times has been that of William Richard Morris, of Morris Motors, Ltd., and Morris Commercial Cars, Ltd. At an early age he started, with capital of a few pounds, to build bicycles. Later, in 1912, he turned his attention to the building of cars, and just before the Great War was producing the earliest models of the machines which have made his name famous. His progress has been constant, and for a long time now he has held a foremost place among the motor-car manufacturers of the world. He was created a baronet in March, 1929, and last Monday his name appeared among the peers in the New Year Honours List.

The motoring community will unite in offering congratulations. While his gifts to charity have exceeded half a million pounds, it is impossible to calculate the value to the nation of the vast enterprises he has created and led to prosperity. At a time of great financial difficulty he has been able to give employment, directly and indirectly, to many thousands of men, and his main object in life has always been to help those less fortunate than himself. Living, as he does, a simple life, he has found it possible to act as fairy godfather to various hospitals, the up-to-date equipment of which could never have been installed had it not been for what may truly be described as his princely generosity. No honour conferred in recent years has been more generally applauded than has the peerage now bestowed on Sir William Morris.

"MOST POLITELY"

Write to the Court If Unable to Attend

TOWARDS the end of last year a woman magistrate gave some sensible advice to motorists when she urged that, in the event of their not being represented and not making a personal appearance at the court when summonsed, they should write a polite letter to the Bench. It is unusual for courts to insist upon drivers making a personal appearance if a plea of guilty is made, and attendance at the court for what is probably a technical offence may well mean a serious loss to a busy man. In all cases, however, when it is not proposed to attend a particular point should be made of writing. Motorists will certainly find that politeness

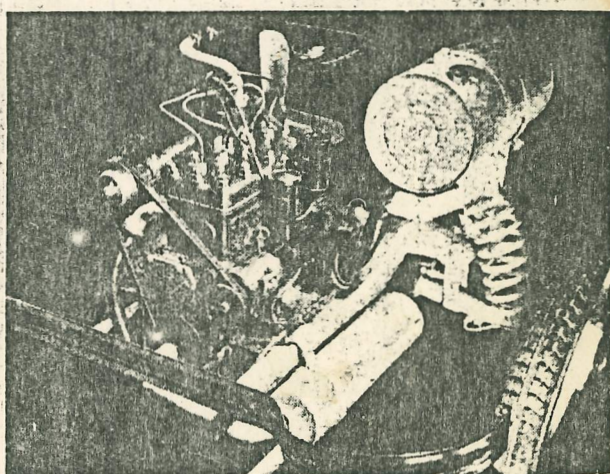
pays in this matter, for if the magistrate believes the defendant regrets his offence and is courteous in his attitude to the court, the fine is likely to be less.

AN EXPLANATION NEEDED

Board of Trade and Recent Insurance Crash

ON a later page in this issue appears an article written by an insurance expert in which some very important questions are put to the Board of Trade. It will be remembered that about a fortnight ago an order was made in the High Court for the compulsory winding up of the North and South Insurance Corporation, the judge remarking that the company was obviously insolvent.

The order was obtained on the application of the Board of Trade, and the author of the article referred to pertinently asks why the application was not made long ago. The power to make it has been in the hands of the Board of Trade since March last, when the Assurance Companies (Winding Up) Act came into force. This measure was passed principally as a result of the failure of two insurance companies since the Road Traffic Act of 1930 was passed, these failures demonstrating conclusively how important is the financial stability of an insurance concern, and how essential it is to eliminate all unsound companies engaged in motor in-



The engine at the rear of the back axle.

insurance work, if the compulsory third-party insurance-
section of that Act is to be a really effective safeguard
both to the public and to motorists themselves.

Our contributor asserts that there was ample evidence
available for the Board of Trade to apply for an order
to wind up the North and South Insurance Corporation
many months ago—at any rate, prior to the spring and
summer business which it had transacted with the motor-
ing community. It is not difficult to realise that the
Board of Trade has to be careful in using the powers
conferred upon it by the Assurance Companies (Wind-
ing Up) Act, for even an unsuccessful application could
scarcely fail to have a very damaging effect upon the
business of the insurance concern in question. On the
other hand, there seems little excuse for the Board of
Trade to delay action when the financial stability of a
company has been, as in this case, a subject of consider-
able criticism for several months.

It is to be hoped that an explanation will be forth-
coming of what appears at first sight to have been un-
warrantable laxity on the part of a great Government
department.

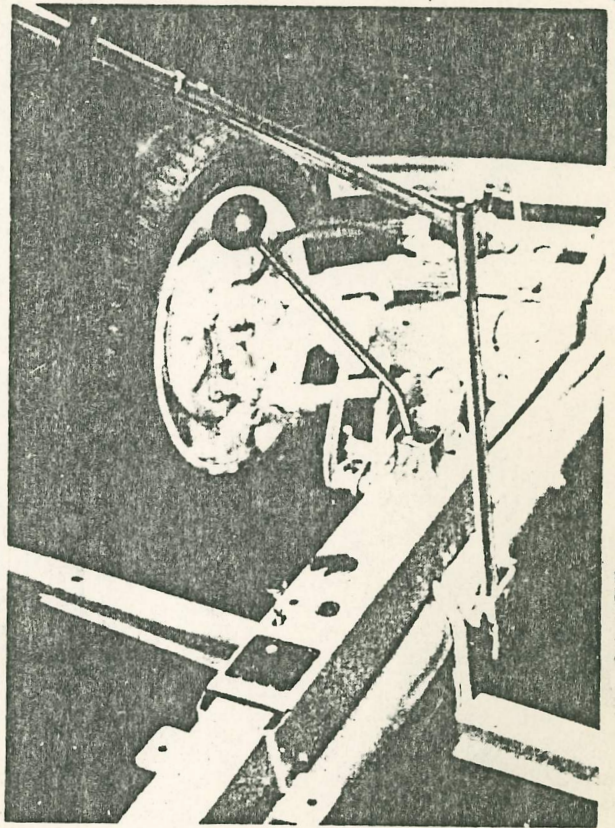
WHEN FILLING UP

Garage Hands Who Practise Deliberate Fraud

ALL horse dealers, it used to be said, were rogues,
and there are some people to-day who believe that
their mantle has fallen on garage staffs. This will
be indignantly denied, as it should be, but the fact re-
mains that there are filling stations where deliberate
fraud is practised by the employes. In a case which
recently came to our notice a motorist asked for a pint
of expensive, branded oil. He turned his back while
the attendant was filling the measure, but later noticed
that the spout of a nearby bin containing oil costing
some sevenpence a pint was dripping, the other appear-
ing dry. He questioned the man, but was assured that
the expensive oil had been put in. The facts are not
conclusive, but are distinctly suggestive.

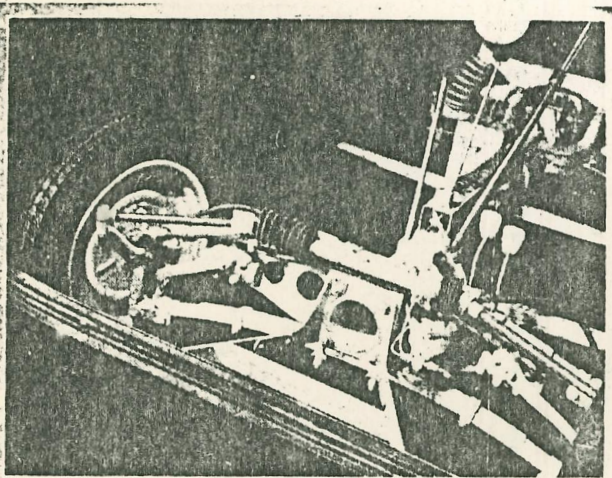
This incident occurred at a well-known filling station
run by a large company. It was due not to dishonest
intent on the part of the firm, but to the action of one

employee, who no doubt himself pocketed the difference
between the two prices. Another old trick sometimes
"tried on" at night when the attendant thinks he is not
being watched is to put fewer gallons of petrol into the
tank than have been ordered. Sooner or later such
people are detected by their managers and dismissed.
The point to emphasise is that motorists purchasing oil
and petrol should satisfy themselves that they are obtain-
ing exactly what they ask for. A good engine may well
be harmed through using oil of an inferior quality. Gar-
age proprietors, meanwhile, should see that the conduct
of their hands is all that it should be.

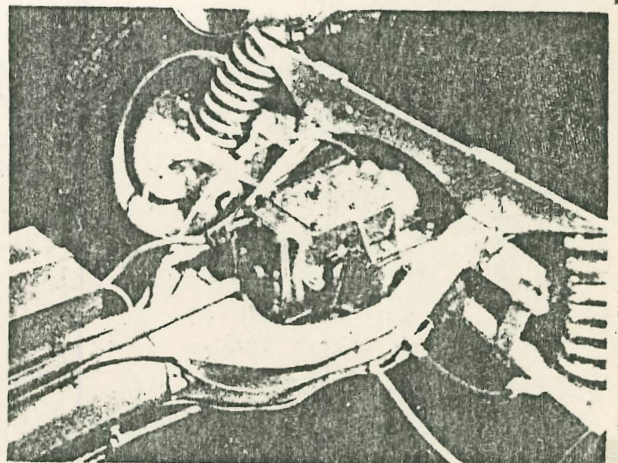


How the r-mote controls are arranged on the single-tube chassis.

DETAILS OF THE NEW 1,300 c.c. MERCEDES
DESCRIBED OVERLEAF



Front axle assembly.



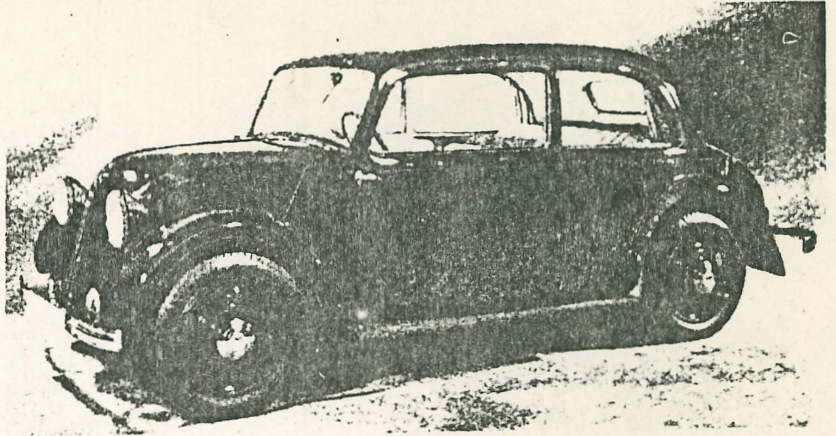
Rear axle assembly.



A Rear-engined Mercédès

Interesting New 1,300 c.c. Model Which Also Has Independent Springing

THE manufacturers of the famous Mercedes, the Daimler-Benz Company, of Stuttgart, in Germany, have created a surprise by the introduction of a small car embodying the now already well-known Mercedes independent wheel suspension system, a central backbone-type frame consisting of a large diameter steel tube and having the 1,300 c.c. four-cylinder engine overhanging the divided rear axle. Two transverse springs are used for the front wheel suspension, as in the 1.7 and 2 litre Mercedes models introduced at the beginning of 1932, while the rear wheels are mounted, also as on the models mentioned, on the ends of casings pivoted on the differential gear case in such a manner that they can swing up and down. Each swinging half axle casing is supported by a single coil spring.

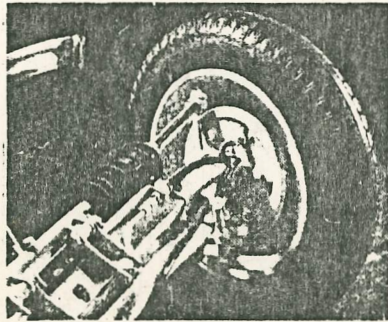


The new 1,300 c.c. Mercedes two-door saloon, which in spite of its unorthodox chassis has not an unorthodox appearance.

Engine and Gear Box at the Rear

The engine and entire transmission, including the differential gear box and rear wheels, form a single unit, which is mounted in four rubber-lined bearings on a fork fitted on the rear end of the central tube. The engine is rearmost, while the gear box faces to the front. It contains three normal speeds and one indirect top ratio. The gears are operated by means of a long shaft on top of the central tube, which runs through the body, the floor being lower than the top of the tube. Where the gear control shaft runs within the body, it is covered, and it terminates at the front end in a casing on which a normal ball-type change-speed lever is mounted. The top of this casing is almost on a level with the front seats, and, the position being so convenient, the starting and lamp switch, as well as all lighting fuses, the latter in a covered recess, are mounted on it. All controls are wholly normal, and the hand brake lever also is to be found in its normal place.

The engine is of straightforward design, with side-by-side valves. The compression ratio is 6 to 1, and 26 b.h.p.



How the steering of the independently sprung wheels is arranged.

is delivered at 3,400 r.p.m. as maximum output. A Solex carburettor of the latest type is fitted. The radiator stands on the fork, over the gear box, and towards the

rear of the car, being slightly offset. The water is circulated by a pump of centrifugal type driven by the fan shaft.

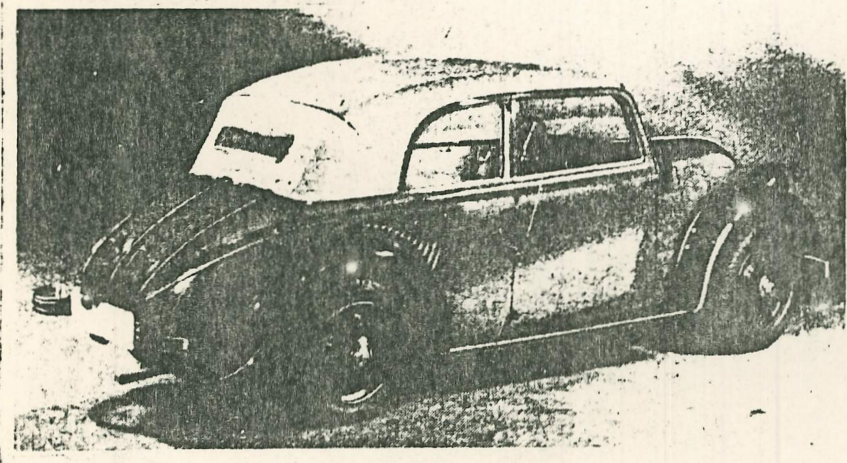
The rear end of the crankshaft—which normally would be the front end—carries a pulley with a rubber V-belt. This drives the dynamo, on the off side of the engine, and on the near side a loose shaft mounted inside a casing alongside the cylinder head. This is the fan shaft, on the forward end of which a four-blade fan is fitted immediately behind the radiator. The pump is inside the shaft casing behind the fan.

The engine has coil ignition and a six-volt electrical system. Particular care has been bestowed by the designers on the lubrication system, which includes a large exterior oil filter. The fuel tank is cylindrical in shape and is clamped to a bed formed on the end of a cross-member on top of the fork, to the right of the radiator. The ends of this member support the coil springs.

Partly Streamlined Body

The saloon body on this chassis is of steel and is partly streamlined. The two front seats are of the folding type, and behind them is a large seat of exceptional breadth, with comfortable accommodation for two adults and a big child. The engine compartment is entirely separate from the interior of the body and is accessible after lifting the top of the stern.

Removable partitions left and right of the engine conduct the air drawn in through the radiator in such a manner that it cannot return to the forward side, but has to go out through long slots in the detachable top. These slots are covered by raised metal strips, to give outwardly a neat appearance. The cooling air is drawn in partially through louvres provided in the sides of the body above the rear wheels. The body has double walls over the rear wheels, and the intermediary space forms the channel for the air current, which, incidentally,



An all-weather type of body.

Mercedes 7

also acts as a kind of screen, preventing fumes from penetrating into the interior.

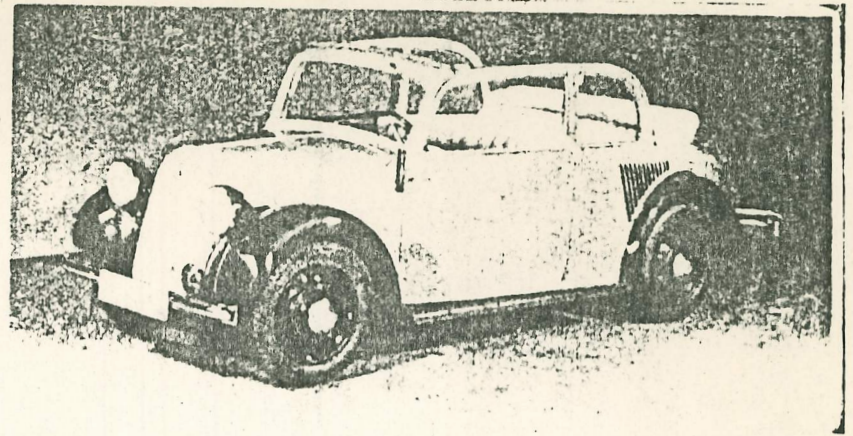
The design is claimed to have many advantages. It enables all seats to be arranged within the axles, and gives the driving wheels increased load by the overhanging engine, so that adhesion is improved. This means greater safety on slippery roads, and enhanced climbing ability. It makes steering extraordinarily light without, however, in any way reducing its effectiveness.

This argument is theoretically worthy of closer consideration. On cars with engines in front the inertia of the engine mass, especially at high speeds, is powerful, and a considerable degree of adhesion of the steering wheels is required to resist this inertia and swing over the engine into a new direction of travel. If the engine mass is concentrated around the vertical turning axis of the whole car, between the two rear wheels, then it has only to be turned, and not swung bodily a number of feet sideways out of its old track. In addition we then have a long lever arm to help in achieving this turn. It is as long as the wheelbase of the car, or, rather, the distance of the steering wheels from the turning axis. We therefore no longer require heavy weights on the steering wheels. The small Mercedes, indeed, supplies proof of the correctness of this theory.

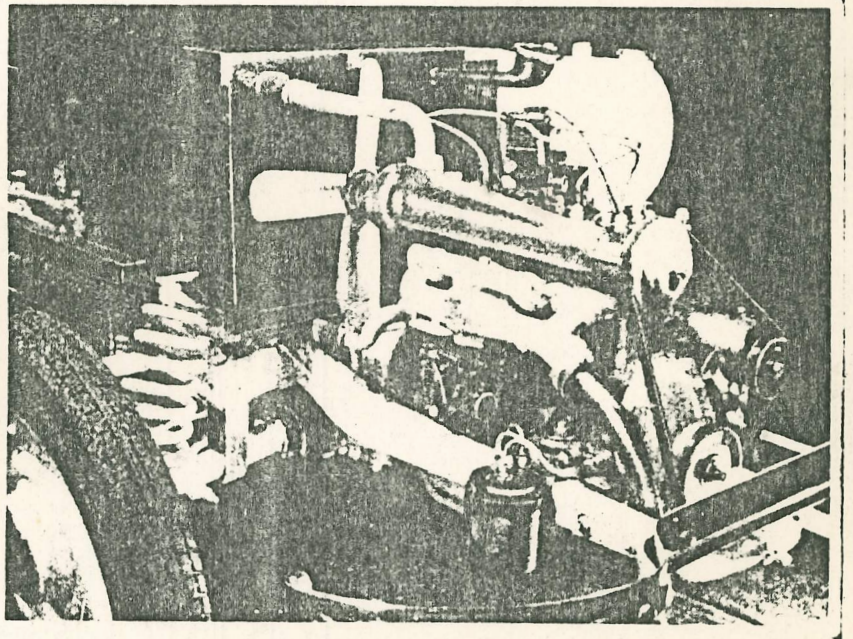
Dimensions and Performance

The engine has a bore of 70 mm, and a stroke of 85 mm. The wheelbase of the car is 8ft. 2½in., while the track measures 4ft. 2in. The body has a width of 5ft., and the entire saloon car weighs 1,940 lb., notwithstanding which a maximum speed of fifty-seven miles per hour, checked by stop watch, can definitely be maintained. The top gear on direct drive is 0.75 to 1, and 4.35 to 1 when the indirect top ratio is used. Final drive is by means of a worm and worm wheel. The indirect top can be engaged or disengaged without using the clutch.

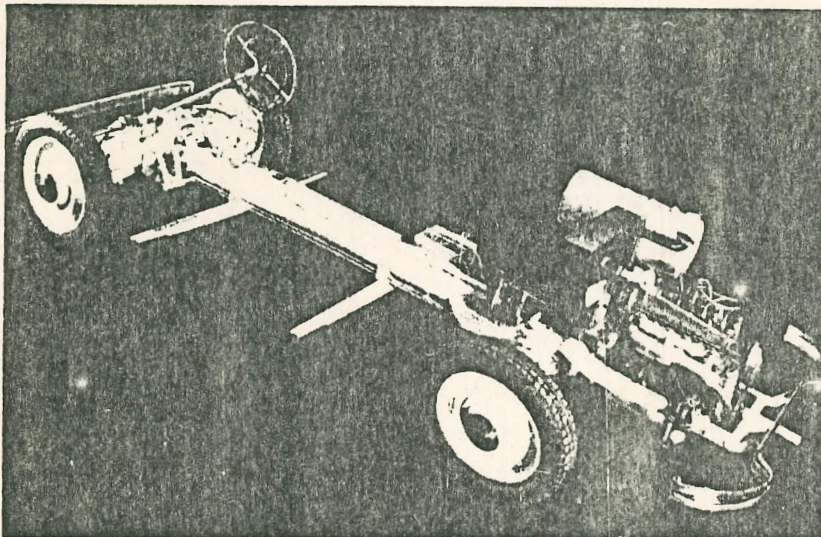
The roof section of the steel saloon is pressed in one piece and it reaches from



The all-weather body from the front, with head down.



The power unit in its extension of the frame, behind the rear axle.



1,300 c.c. Mercedes chassis complete.

the scuttle to the rear waist line. Two large doors with drop windows are fitted, and access to the rear seats is very convenient. There is a deep ledge over the engine compartment, between the back of the rear seat and the rear panel. This is meant for carrying trunks or suit cases.

There is ample space for the feet of the front-seat occupants. An airtight partition is fitted in place of a dashboard and provides a locker under the somewhat blunt-looking bonnet, which is hinged and can be lifted entire. This valuable space is, however, sacrificed for the spare wheel and tool kit. But, compared with other small cars, the space available for luggage cannot be regarded as being too small.

The equipment of the car and its interior appointments are very complete and attractive. In addition to the usual electrical equipment, including direction indicators and windscreen wiper, a cigarette lighter and ash-tray are furnished. For the winter an air-heating system is provided, and patent jacks are fitted on each side under the car.