Deutschlandflug 1925

*aus flight 1925, Nr 319*

A photograph of this engine in one of the Caspar machines is published herewith.

**Daimler-Motoren-Gesellschaft.**

One of the most famous names, not only in German automobile and aviation circles, but in the world, is that of Daimler. The machines taking part in the Round-Germany flight were designed and built by the Sindelnngen works of the Daimler Motor Co., which have been interested in light 'plane construction for some considerable time. Two very interesting types are entered (some in several examples) for the competition, these being the L.20 and L.21.

Unfortunately, photographs are available of the former only. We say unfortunately, because the L.21 machines entered are, according to the entries list, to be fitted with two engines each. As each of these Mercedes engines is only rated at 19 h.p., it will be seen that, in spite of being twin-engined machines, the L.21 may fairly be described as a light 'plane. This is of course a very interesting innovation, and it will be curious to see how the twin-engined type compares for reliability with the single engined. The L.20 may be said to be a development of the L.15 light 'plane which was described in *FLIGHT* some months ago. A novel feature of the design is that the machine has been so arranged as to be suitable for use both as a light 'plane and a glider. When it is desired to use the L.20 as a glider, an ingenious arrangement enables the wings to be swept back at a considerable angle so as to bring back the c.p. The engine is removed and a nose-cap fitted over the front of the fuselage. With this arrangement the absence of the engine in front is balanced by the backward sweep of the wings and the machine retains its trim fore and aft.

**The Daimler L.20 is a low-wing light monoplane two-seater with 19 h.p. Mercedes-Daimler engine.**

Constructionally, the Daimler L.20 follows orthodox lines. The wing is placed low on the fuselage, and is of the cantilever type. The wings are attached to short wing roots built into the fuselage, and can be easily dismantled for transport, when they fold flat against the sides of the body. The fuselage is of ordinary girder type and fabric covered. The undercarriage is divided so as to minimise the risk of the machine tripping up in long grass. This 'plane has a Mercedes engine specially developed for use on light 'planes. It is of the two-cylinder opposed air-cooled type with a bore of 75 mm. and a stroke of 100 mm., giving a cubic capacity of 885 c.c. The wing area of the L.20 is 20 sq. m. (215 sq. ft.) and the empty weight is 220 kg.(485 lbs.), with a useful load of 170 kg. (375 lbs), the total loaded weight being 390 kg. (860 lbs.). The top speed is stated to be 100 km./h. (62 m.p.h.) and the landing speed 60 km./h. (37J m.p.h.), the ceiling (which has actually been reached in flight) is 3,500 m. (11,500 f)

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**aus Flight 1925, Nr 344**

*In many ways the most remarkable of all the machines in* the competition are the Mercedes-Daimler parasol monoplanes, type L.21. Built at the Sindelfingen works of the Daimler Company, these machines are parasol monoplanes, with two of the 19 h.p. Mercedes engines mounted on the leading edge of the wing. The fuselage is suspended on struts a considerable distance below the wing, and the pilot is placed right in the nose of the fuselage where his view must be particularly good. The Mercedes engines are rated at 19 h.p. each, and are of the flat-twin air-cooled type. They look robust, simple, and well made, and are, we believe, making their appearance for the first time. The L.21 type **twin-engined light plane, but because it is the only twinengined** type in the whole competition. Up till now they have not been flying, so one has had no opportunity of judging their performance, and as at least one of them is barely finished it seems somewhat doubtful if they will start at 4 a.m. tomorrow morning. A photograph of the L.20 type Daimler was published last, week with a few particulars, but it is interesting to see the actual machines, which are of particularly handsome appearance. A peculiar aileron combination is employed on the Daimler machines, consisting of an ordinary aileron to which is coupled a small balanced flap extending outward from the wing tip. The method of inter-connection is such that the wing tip flaps cannot be regarded as balances, and are therefore presumably used to increase the effectiveness of the trailing edge flaps.

**aus Flight 1925, Nr 354**

*A TWIN-ENGINED LIGHT 'PLANE: The Mercedes Daimler L. 21, built as a parasol monoplane with two Mercedes Daimler engines built into the leading edge of the wing. On the left is shown one of the 19-h.p. engines, while on the right is a front view of the central portion, which gives a good idea of the strut bracing arrangement.***

**aus Flight 1925, Nr 355**

On the small Mercedes-Daimler machines a combination of trailing edge flap and wing tip flap were linked together under the wing by cranks and pull-and-push rods in such a manner that the two flaps worked together, the trailing edge flap being directly operated from the controls while the wing tip flap was indirectly operated via the **trailing** edge the Mercedes-Machines appeared very controllable, both the single-engined an twin-engined type, presumably the arrangement works well.
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**1.** The combined trailing edge and wing-tip flap on the single-engined Mercedes-Daimler L.20.

**2.** The unusual aileron on one of the Junkers T.29's. This aileron depends upon the "ramp aerodiel" effect for its greater lift. Easy adjustments are provided for varying the size of slot.

**3.** Shows the unusual fin and rudder of the Caspar C.26, while 4 shows the hinged engine cowl on the C.24, which gives unobstructed access to every part of the engine.

**5.** Shows the nose of the Focke-Wulf fitted with the six-cylinder air-cooled Junkers engine.

**6** and 7 show Siemens engines as mounted in Dietrich biplanes, No. 6 being of the latest type.
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*aus Flight 1925, Nr 359*

THE ROUND-GERMANY FLIGHT: Sketch map showing the five circuits in the competition. Machines started from and finished at the Tempelhofer aerodrome in Berlin in each circuit, and the direction flown was anti-clockwise.
Some Preliminary Results

The preliminary results of the Round-Germany Competition have now been issued by the German Aero-Club. These results are still subject to minor changes which may be made as a result of more accurate information as to actual distances covered and changes made in machines, engines or pilots, but are not likely to be very much altered, at any rate as regards prize winners. The Rundflug machines were, it will be recollected, divided into three classes, Class A having engines up to 40 h.p., Class B from 40 to 80 h.p., and Class C from 80 to 120 h.p.

The machines in Classes A and B competed for the prize of 100,000 gold marks (£5,000) offered by the first prize in this class was the little twin-engined Mercedes-Daimler L.21, with two Mercedes engines of 19 h.p. each. This machine carried the number 623 in the competition, and was piloted by Loerzer. "We believe that actually this machine covered the entire distance in the five circuits, but changes made in the engines reduced the total mileage figure awarded to 3,219 kms. (2,000 miles). This machine thus won first prize in Class A (25,000 marks).

Second and third in this class were the two single-engined Mercedes-Daimler light monoplanes, type L.20, each fitted with a 19 h.p. Mercedes engine. No. 608, piloted by Schrenk, obtained the Berliner Zeitung am Mittag, while the machines of Class C competed for the Boelcke prize of 50,000 gold marks (£2,500). Finally, there was the Richthofen prize of 45,000 gold marks devoted to special prizes for machines using German engines, and divided equally among the three classes. Of the machines in Class A, five completed enough of the circuits to bring them into consideration for the prizes, although none got through with full marks.

The winner of the second prize of 15,000 marks with a distance of 3,121 km.(1,870 miles) and No. 609, piloted by Guritzer, obtained the third prize of 10,000 marks, with a distance of 2,947 kms.(1,830 miles).

Zusammenfassung Klasse A bis 40 PS:
1.Preis Daimler L 21 Pilot Lörzer
2.Preis Daimler L 20 Pilot Schrenk
3.Preis Daimler L 20 Pilot Guritzer

In the competition for the Richthofen prize (for machines using German engines), Mercedes has won 1st prize and Junkers 2nd and 3rd prizes.