

splendid performance in the competitions, and so that as a reason can be ruled out at once. The prizes available are such as to make the entering of a machine a not unreasonable financial speculation, and any aircraft firm would appear to be justified in spending money on producing at least one machine for the competitions.

That no doubt will be the view taken by the majority, and for the sake of the sport of flying we hope that such will be the case. If the de Havilland Aircraft Co. has decided not to enter it seems reasonable to suppose that this is because Capt. de Havilland and his technical co-workers are of the opinion that the type of machine that will result from the competitions will have no practical utility afterwards. This, in fact, is the view put forward to us by Capt. de Havilland recently, and we confess that we experienced not a small degree of surprise to hear it.

That this view will be shared by the majority of designers we rather doubt, and personally we are not prepared, at this stage of light 'plane development, either to accept it or to reject it. At any rate, the views of a designer of Capt. de Havilland's standing are entitled to the very fullest consideration, and we should like to see the matter discussed in our correspondence columns, which we shall be glad to throw open to the ventilation of this very important subject.

From what we gathered, Capt. de Havilland has come to the conclusion that if a really reliable, strong, useful and safe machine is to be produced, the actual engine power for a two-seater should not be less than 50-b.h.p. The reserve of power then available would allow a machine to fly quite strongly even when its engine was not running at its best. With only 1,100 c.c., he maintains, the margin is so small as to put a very heavy strain on the engine, and the reliability is likely to suffer.

Somewhat by way of showing what he has in mind, it may be, Capt. de Havilland has produced the D.H. 51, described and illustrated in this issue of FLIGHT. Even that machine does not, we gather, represent Capt. de Havilland's ideal, but it was the best that could be done with the engines available at a reasonably low price. We understood from Capt. de Havilland that what he had in mind was an engine something like the Czech Walter engine, illustrated and described in FLIGHT on June 5 last. This engine develops 50-60 b.h.p., and is a five-cylinder radial air-cooled. With this amount of power, if engines could be obtained at fairly low cost, a really useful two-seater with good performance and, even more important, good reliability,

could be produced, and would be of general utility not only for school work, but for the private owner pilot.

This is one side of the argument. On the other it will doubtless be maintained that as soon as one begins to get up to engines of this size and power the cost of the engine goes up, the amount of fuel consumed increases, the size and price of the machine itself is greater, and running costs are increased. In other words, we are back where we started, and performance and reliability are obtained, not by improved design, but by "piling on more power." Also, it has not yet, we think, been proved that a machine with 30 b.h.p. engine will not have a sufficient margin of power to enable it to be flown normally at something like 60 or 65 per cent. of its full power. One machine that has been designed for the competitions has an estimated top speed of 84 m.p.h., a landing speed, also estimated, of course, of 34 m.p.h. and a climb of 3,000 ft. in 9 minutes. These figures appear to indicate that a very good margin of power is available, and that it should be possible to cruise at something like 70 m.p.h. at not much more than 65 per cent. of the full power. A good light 'plane engine should be capable of running at this power for long periods, while the performance, both in speed and climb, is certainly not to be sneered at. The question of cruising, by the way, is one not peculiar to any one kind of machine, and it should be realised that there is always a very strong temptation to go "all-out," no matter whether the engine develops a maximum of 30 h.p. or of 300 h.p. It may, perhaps, be argued that in the case of a machine whose top speed is relatively low the temptation to fly at full power is greater, but we doubt whether there is really much in that argument.

When the Lympne competitions regulations were drawn up there was a good deal of discussion as to the maximum cylinder capacity that should be permitted. Some maintained that 1,100 c.c. was sufficient, while others thought that at least 2,000 c.c. should be permitted. In the end it was decided to limit the capacity to 1,100 c.c., the reasoning being that a specially-tuned engine of 1,100 c.c. would be approximately equivalent to a 1,500 c.c. engine or so, used by the average pilot and getting but medium attention and tuning. At any rate, the subject is one of very considerable importance, and one well worth discussion, but probably the time for this will be after the Lympne competitions, when there are concrete examples instead of theoretical estimates to work upon.

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NO AERIAL DERBY ?

JUST as this week's issue of FLIGHT is going to press it is learned that there is a possibility, amounting almost to a certainty, that there will be no Aerial Derby this year. The reason given is that the number of really high-speed entries has been so small that the race, as an international event, would be of but little interest. It is felt that to hold an Aerial Derby in which the pure speed contest is absent and reducing the race to an ordinary handicap for relatively slow machines would not be in the best interest of the sport, and so, after close consultation with the aircraft industry, it is likely to be decided to postpone indefinitely this year's Aerial Derby. Possibly the light 'plane handicap which was to have been held at Lympne on the day of the Aerial Derby will be flown on some other date, and in that case it would seem to be advisable to hold it at one of the London aerodromes.

The Air Ministry light 'plane two-seater competitions, which were to have taken place at Lympne from September 8 to September 13, have also been postponed, but fortunately, there is no suggestion that they should be abandoned. The new date has been fixed at September 29 to October 4, and the race for the challenge cup presented by Lord Edward Grosvenor will, presumably, be flown on the last day, *i.e.*, on October 4. The postponement is, we understand, chiefly due to difficulties in regard to engines, the consultations between the Air Ministry and the industry having resulted in so many changes and stipulations on the part of the former that it has not been found possible to get engines ready in time, and consequently it has been decided to postpone the competitions until the dates mentioned. Let us hope the weather will not be too unkind.