

CORRESPONDENCE

The Editor does not hold himself responsible for the views expressed by correspondents. The names and addresses of the writers not necessarily for publication, must in all cases accompany letters

IMPLICATIONS OF V2

Calculations Corrected

IN my recent letter concerning the implications of V2 published in *Flight* dated January 4th the subdivision of the load of the small one-ton rocket should have been pounds and not kilogrammes, the 2,000 lb. all-up weight being in round figures instead of 2,240, and the subdivisions likewise.

A printer's error arose, also, with the equation of mass ratios where $e \cdot \frac{V}{v}$ as printed should read, of course, e to the

power of $\frac{V}{v}$

E. BURGESS

(President, the Combined British Astronautical Societies).

CROPPED AIRSCREW BLADES

An Advantage of Wood

AFTER seeing the photograph in *Flight* (January 4th) of the Spitfire with "cropped" airscrew blades due to a little sea-hopping at rather too "negative" an altitude, I cannot help thinking that wooden blades in an airscrew have an advantage over the metal variety in a rather interesting manner. The very fact that the blades on this particular "Spit." were wooden and portions "snapped off" on impact with the sea surely enabled the pilot to continue back to base for, had they been of metal, would they not have buckled badly or "bent back," thereby causing vibration and probably complete loss of efficiency?

The wooden blades having "lost" their damaged section can continue functioning, and the reduced blade area seems likely, in most cases, to be sufficient to maintain flight. I cannot visualise a single-engined aircraft flying far with heavily buckled metal airscrew.

Maybe I'm wrong, but it's a point which I thought may be of interest to readers.

V. H. IZART.

PLUGGING

Credit Due to AC-Sphinx

WE were very interested to observe that in *Flight*, December 21st, you make, on page 654, editorial mention of President Roosevelt's message to Congress of the high quality of the British-made sparking plugs fitted to Flying Fortresses taking off from British bases since 1943, but we were astonished to observe that in the concluding paragraph on that page you refer to two of our competitors with a clear inference that the plugs in question were made only by these two firms.

We are rather surprised that your information should be so incomplete, as this company has made and supplied a quantity of these plugs appreciably in excess of the number supplied by at least one of the makers to whom you refer.

We feel you will probably also be interested in the following point. Arising out of the experimental work on aircraft plugs done by this company just prior to the war, we developed what we feel can be regarded as the most outstanding basic invention in plug design over the past 25 years. It consists of casting a silver core into a cavity within the nose of the ceramic insulator and thus goes a long way towards achieving a widening of the operating range of the plug between the fouling and pre-ignition points.

This feature was the invention of our works director, Mr. D. H. Corbin, and under arrangement with the Ministry of Aircraft Production, the rights to use the invention were accorded to our two competitors whom you mention in your editorial.

This silver core feature has, to our knowledge, been used on practically all the plugs to which President Roosevelt referred, which certainly supports the claim, which we unhesitatingly make, that the silver core is largely responsible for the success of all the three makes of plug. We would also mention that this silver core feature is similarly being used on the overwhelming proportion of the aircraft plugs made by the three companies (K.L.G., Lodge and AC-Sphinx) for British aircraft engines.

There is just one further point. In the course of our aircraft plug development work—and this applies particularly to the period over which the silver core feature was developed—we

received the unstinted help of the Bristol Aeroplane Company. The contribution of the engineers of that company—in particular, their Mr. H. C. Mansell—has been an important factor in the successful manner in which British aircraft sparking plugs have performed during the war.

We feel quite sure that you will wish to give to the above information the same editorial publicity that you have given to the subject in the editorial columns of your December 21st issue.

N. F. STOCKBRIDGE,

Managing Director,

AC-Sphinx Sparking Plug Co., Ltd.

[While regretting our information was not complete, we suggest our correspondent must blame the Sphinx-like modesty of his famous firm.—ED.]

ABOUT AMPHIBIANS

Is the Wheeled Float a Solution?

I AM sure that most of us will agree with "Indicator" when he states in his article, "About Amphibians," that the chances of unsticking the small amphibious boat, with its high load/horse-power ratio, are sportingly small.

By keeping, however, to the pros and cons of this type of amphibian only, he rather leads us to suppose that there is no other line of country open to us in our search for the solution of the small amphibian problem.

I feel that many of us would like to hear his views, if he would tackle the job from an entirely different angle. I would ask him to carry his mind back 20 years, to the amphibious Fairey Flycatcher. This aircraft had floats (presumably self-supporting, or more or less so, when airborne); with landing wheels let into the centre of the floats, protruding sufficiently to give the floats ground clearance. There was no additional weight from duplication of undercarriage struts and bracing, as the one rig accepted the load from floats or wheels.

With 20 years of aerodynamic research and float design available since this aircraft flew, what is "Indicator's" opinion of the above system, or something akin to it, as being the solution to the wants of the amphibious-minded small aircraft operator?

C. G. HANCOCK.

(Pilot, J. Brockhouse and Co., Ltd.)

CIVIL AIRCRAFT ENGINES

Limited Choice of British Products

I HAVE read with much interest the article on the above subject by John Morrison in *Flight* of December 21st and 28th, but I cannot possibly let the statement in the second part of his article pass unanswered, where he states that I have inferred that Hercules engines are unsuitable for air transport operation. The statement made in my article (*Flight*, August 10th) was: "The air-cooled radial engine, which is obviously more suitable and in greater favour, has not yet been considered for the York." In my answer to Mr. Pollitt's article my reply given in *Flight* correspondence (September 14th) was: "The Merlin engine of 27 litres is too small for large civil-type aircraft; the Hercules of 38.7 litres was much nearer the mark"; and, finally, that I was suspicious to find no evidence that the purely military power-plant with British air-cooled radial engines had been tested in the York.

It must be remembered that not only are we seeking to find suitable aircraft for post-war civil aviation, but also suitable engines. There is not a wide choice of British engines; in fact, there is only one choice in the air-cooled radial types.

The size and power is about the same as the Hercules, and for aircraft of the York size this is the only engine of its type and power available in this country.

This engine, as far as general workmanship is concerned, is second to none in the world, but this is not the designer's credit. I repeat that the design has not been tested in the same thorough manner as the Merlin, and in that respect it cannot be regarded as a successful competitor in the field of international competition for post-war civil aviation. It seems that those who are now trying to build the foundations for British civil aviation cannot possibly be aware of the true position in the industry.

So in reply to Mr. Morrison I would say that the Hercules, for type, capacity, and power, is ideal for civil air transport operation.

C. H. POTTS.