



The de Havilland Vampire I (D.H.100)

A "Conventionally Unconventional" Jet Fighter Described : Good View, Exceptional Handling Qualities and High Operational Maximum Speed

SO much has been said in recent months about speed in relation to handling qualities, and so many official and unofficial maximum figures have been given, that it is difficult to approach the case of any high-speed fighter aircraft without developing a tendency to become involved in "comparative" arguments and explanations. In describing the D.H.100, or, as it is better known, the D.H. Vampire, we shall simply state the facts, leaving those who are interested to draw the obvious inferences.

Here we have a fighter (the first of the de Havilland jet-propelled aircraft to go into production) which, with the 3,000 lb. thrust of a single Goblin II unit, and while carrying full operational equipment, has a maximum speed in level flight of 540 m.p.h. This figure has been exceeded by quite a handsome margin during development flying work, but it can be taken as the Vampire's normal, "guaranteed" maximum at 20,000ft.—neither the outcome of any special modifications and cleaning-up, nor the result of designing an aircraft merely for a high maximum speed at the cost of other considerations.

The Vampire's wing loading—32 lb./sq. ft. at normal operational weight—is very low for the class, and is, in fact, some 10 to 12 lb. less than that, for

The basis of the Vampire structure is well illustrated in this photograph of the stripped nacelle and its power plant. The large intake duct area is a crucial point in the design.

instance, of the Mosquito and Hornet. The effects of this moderate loading, coupled with very good control response at all speeds, can be seen in the Vampire's demonstrably excellent manoeuvrability qualities and comparatively low safe-approach speed. The prototype Sea Vampire, on its recent carrier trials, was making powered approaches at an indicated air speed of 95 to 100 m.p.h., and all pilots who have flown the Vampire are enthusiastic about the handling qualities.

Unobstructed Outlook

In brief, a very successful attempt has been made to produce an extremely fast aircraft which is, at the same time, practical and safe as a fighting machine for the average pilot.

From the operational viewpoint the layout of this single-jet fighter has considerable advantages. The rear position of the unit gives the pilot something rather better than twin-engine view, even when arriving slowly under power,

