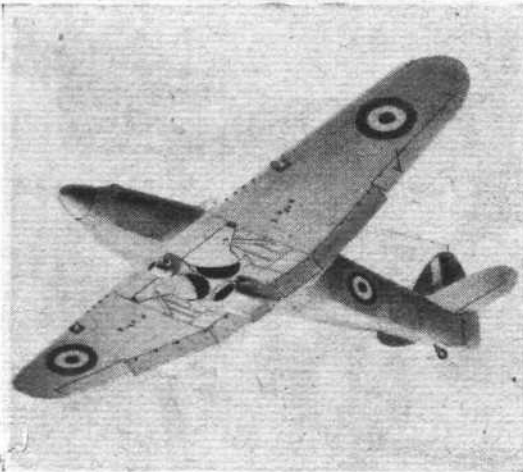


FRIEND or FOE?

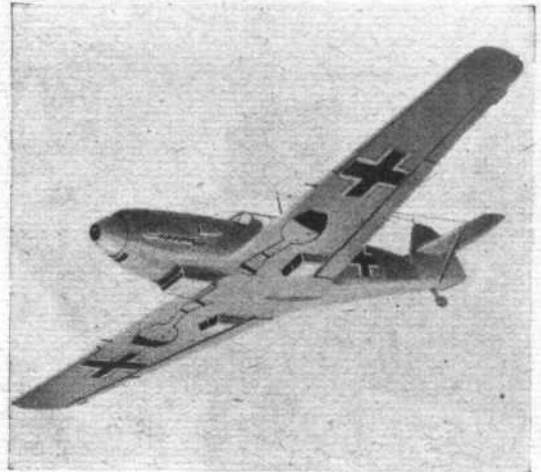
Identification of Aircraft Simplified : A New Series of Articles

Hawker Hurricane, Single-seater Fighter



Wheels retract inwards, exhaust stubs above centre line. Radiator-scoop, beneath fuselage, in line with cockpit. Rounded wing-tips and fillets at the wing roots. Unbraced tail-plane. Large fin and rudder.

Messerschmitt ME 109, Single-seater Fighter



Wheels retract outwards. Exhaust below centre-line. Radiator beneath engine. Square-cut wing-tips, no fillets. Braced tail, small fin and rudder. Two small scoops, one behind each wheel in wing centre-section.

IN this new series Flight aims at helping you to identify hostile aircraft quickly and surely. British and American types will be compared with German and Italian. In the main, "opposite numbers" which resemble each other at first glance will be paired off and their recognisable differences made clear. We begin this week with the Hawker Hurricane and the Messerschmitt ME 109.

PROMPT identification of aircraft is of paramount importance to-day. Many thousands of persons in the R.A.F., the A.A. and searchlight batteries and the Observer Corps and Home Guard, in addition to thousands of roof-spotters, A.R.P. personnel, and even ordinary civilians, are learning to recognise friend from foe when an aircraft comes into view. In planning this new series of articles and illustrations for guidance, the primary fact has been borne in mind that the watcher invariably has only a few seconds in which to make his diagnosis. It is imperative that he should be able to identify an approaching machine quickly, and equally important that he should make no mistake in nationality.

For this reason it is intended in this series of articles to approach the whole question of identification from the point of view of the "spotter," who may get a near or distant view of his quarry, rather than from the purely technical aspect when the two angles are not wholly parallel. For example, the Junkers Ju 88 dive-bomber is fitted with in-line engines (inverted Vee liquid-cooled) but they have circular nose-radiators which give the appearance of radial engines as employed on most British twin-engined aircraft. The man on the ground, therefore, whose duty it is to identify the aircraft as friend or foe, will only be concerned with its external appearance; what sort of engine happens to be hidden within the circular nacelles and the armament carried need not concern him, and to burden him with information which he does not require would only be to complicate matters unnecessarily for him. Brief details of power-units, together with overall dimensions, are already given on the *Flight* charts for the benefit of many who are interested in technical details, but such information is regarded as outside the scope of

these notes which will concentrate entirely upon externals and their ready recognition.

We begin to-day with a comparison of the Hurricane and the Me 109 single-engined, single-seater fighters. When seen approaching head-on in the distance it will be almost impossible to differentiate between these two opposing aircraft because each will show the bulge of a radiator scoop below the fuselage. As the machine approaches, however, the watcher may also be able to see—assuming good visibility—a small bulge under the centre-section of each wing; if so the machine is an Me 109. In conditions of imperfect visibility, or if the approaching machine is viewed from an angle, these small scoops, or ducts, may not be discernible, but if anything like a side view is presented, notice the "fore and aft" position of the radiator scoop. On the Hurricane it is behind the inwardly retracted wheels, but on the Me 109 it is immediately

beneath the engine and in front of the leading-edge of the wings. Now note the position of the exhaust-stubs. On the Hurricane (as also on the Spitfire, Defiant and Battle) these are above the centre line, but on the German machines they are well below the line of the propeller-shaft.

When seen from beneath, the square-cut wing-tips of the Me 109 will easily be recognised even if other details, such as the braced tail, are not clearly visible.

It will be noticed that in the above picture of the Hurricane the flaps are shown in the down position, although the wheels are retracted. This was done to give a clear initial example of the proportions of the former and, at the same time, illustrate the appearance of the inwardly retracting undercarriage as it would be seen in normal flight.

Next week: The Spitfire and the HE113.

