

18667<sup>s</sup>

# Napier Sabre II

By F. C. SHEFFIELD

**Twenty-four Cylinder, Sleeve-valve, Liquid-cooled  
Twin-crankshaft Engine Now in Full Production**

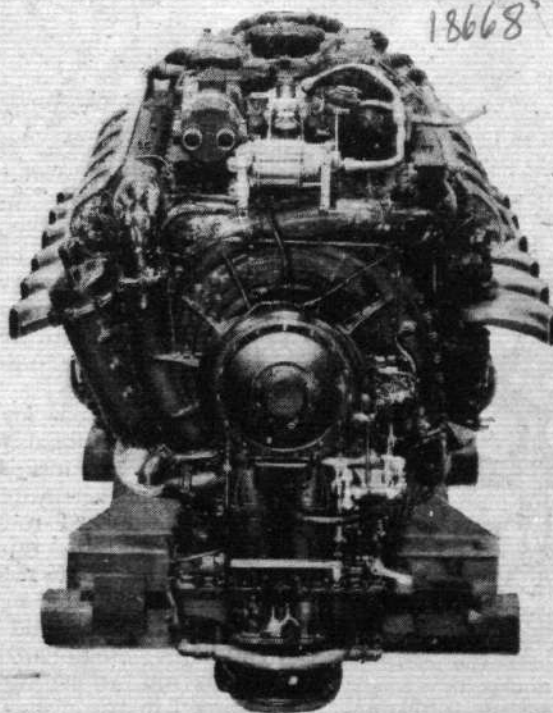
**E**ARLIER in the war the German propagandists were very fond of explaining that the Allied nations, softened by long years of living under a democratic régime, were decadent or effete and would be no match for the virile young Nazi state. For a variety of reasons, of which the strength and prowess of the Allied air fleets are not the least important, this specious philosophy does not now enjoy the same measure of popularity. Any dupe, at home or abroad, who may still be suffering from the effects of such propaganda can be recommended to examine the new Napier Sabre aircraft engine. No signs of decadence, either in conception or execution, will be found in this latest technical achievement. Perhaps no better praise can be given than to state that the Sabre II has already proved its merit operationally in the Hawker Typhoon and has taken its place alongside other famous British engines.

It was towards the end of the year 1935 when the Napier company decided to proceed with the development of a twin crankshaft engine of about 2,000 b.h.p. Experience had already been gained with the 24-cylinder Dagger engine, but this was of the poppet-valve,

air-cooled type and had a much lower power output. The new engine was projected as a 24-cylinder, liquid-cooled unit with single sleeve valves, and the layout was completely changed by the decision to position the cylinders horizontally instead of vertically as hitherto. This arrangement enables all auxiliary components to be grouped accessibly above and below the cylinders instead of at the front and rear. The two-speed supercharging blower was still located at the rear.

As at that period the most powerful engines available had an output of only 1,000-1,200 b.h.p., some doubts were expressed concerning the wisdom of embarking on an entirely novel design for a unit of 2,000 b.h.p. However, the confidence of the company was not shaken, and due to the admirable foresight of the management, the Sabre is now in full production to meet a genuine need for an engine of this class. Actually it passed the Air Ministry's 100-hr. type test with a maximum output of 2,200 b.h.p. in June, 1940.

It will perhaps be remembered that a brief description and external views of the engine in its developed form, known as Sabre II, were published in *Flight*, January 13th,



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2,200 h.p. in compact form.