

THE OLD YEAR

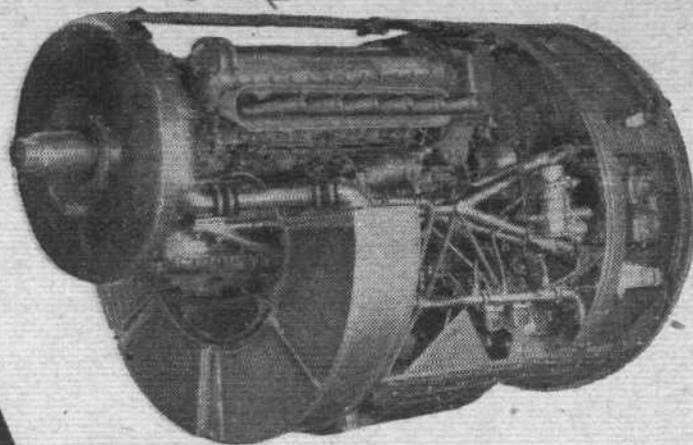
Always a most intriguing design in view of its "flat-H" 24-cylinder layout and sleeve valves, the latest Napier Sabre (Mk. VII) was one of the first British units to be rated with water/methanol injection. Its capacity is 36.7 litres and the maximum power is now 3,100 h.p. at 3,850 r.p.m.

Of the latest Rolls-Royce units, the civil 620 has recently received frequent mention in connection with its installation in Douglas DC 4Ms for T.C.A. It is also, of course, the power unit of the Tudors. Its maximum output is 1,770 h.p. at 3,000 r.p.m., and its capacity 27 litres.

It is recognized as a particularly well-equipped power unit and is well suited to the demands of transatlantic services. The Griffon 130, announced at the very beginning of 1946, is remarkable for its power output at altitude. More than 2,000 h.p. is delivered at 21,000ft from this 37-litre engine. The

Soon to be joined by the more powerful Proteus, the Bristol Theseus airscrew turbine has reached an advanced stage of testing.

Designers would find it hard to select a cleaner radial piston engine than the latest Hercules, the 630.



*Old block RR pin*

With the rigorous duties of transatlantic service in mind, the Rolls-Royce 620 has been designed for high-altitude cruising and all it entails.

secret lies chiefly in the 3-speed 2-stage supercharger and Rolls-Royce fuel injection system.

Gas turbines have during the last twelve months emerged in a diversity of layouts and sizes. Rolls-Royce Derwent Vs and D.H. Goblins continued to establish themselves and details of their large brothers, the Nene and Ghost, each giving 5,000-lb thrust, were announced during 1946. An outstanding performance of the year was that of the specially rated Derwent Vs which can claim to have powered the first aircraft to exceed

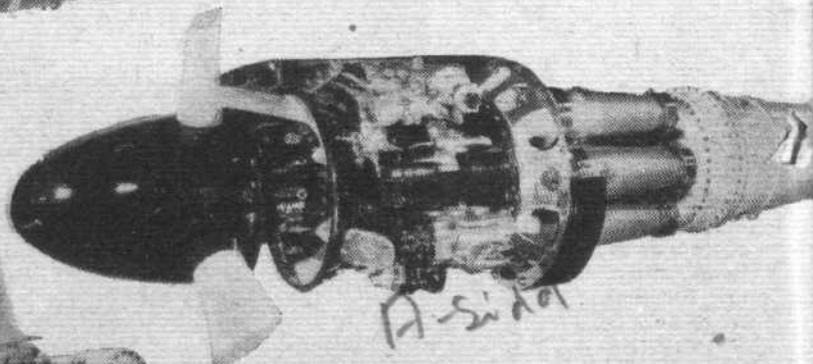
1,000 k.p.h. It is probable that the special Goblin-powered D.H. 108 is also capable of such a speed.

Metrovick designs have undergone further development, in particular with ducted-fan thrust augmenters. Such units are developing up to 4,600 lb static thrust but have not yet flown. The latest design, the F.5, has an open-fan augmentor.

Much more has been heard of airscrew turbines during recent months. These are naturally taking longer to develop than the much simpler pure jets, and so far details of the Bristol Theseus, and Armstrong Siddeley Python and Mamba have been released. All these units now have a good number of running hours to their credit but have not flown.

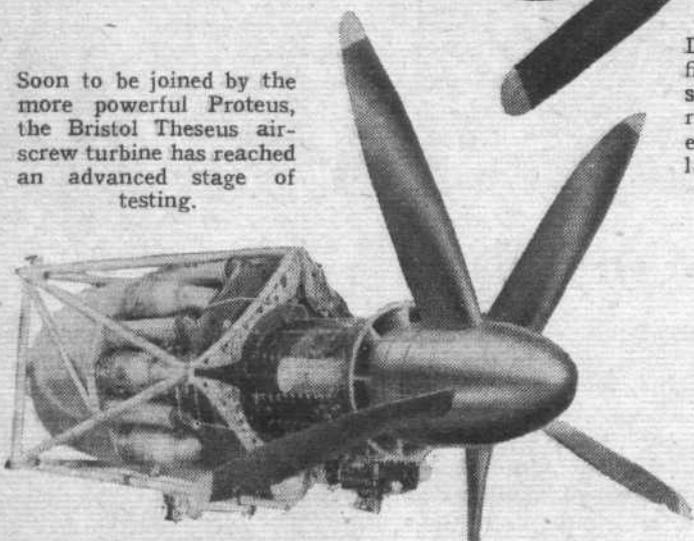
(Below) At present in a class of its own, the little Armstrong Siddeley Mamba airscrew turbine gives a "four figure plus" equivalent horse power for a lower installed weight and drag than any other power unit.

A robust and compact pure jet unit, the de Havilland Ghost delivers 5,000 lb. max. static thrust at 10,000 r.p.m.

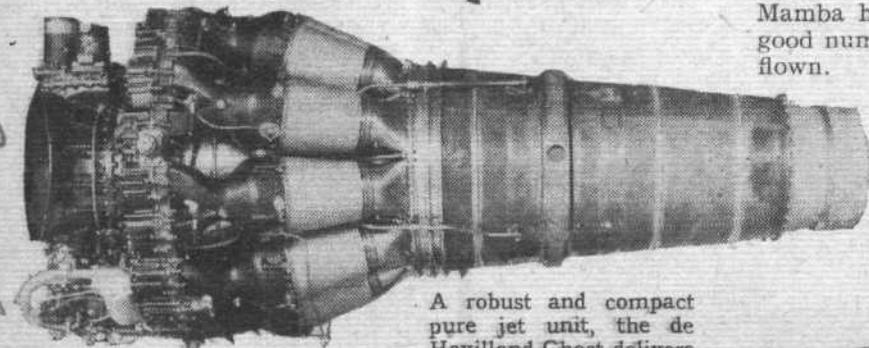


*A-Sidd*

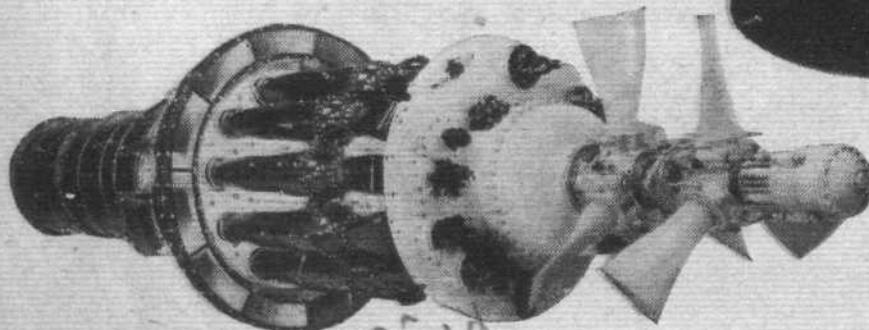
(Left) Most powerful British power unit announced to date, the Armstrong Siddeley Python airscrew turbine was developed from the A.S.X. experimental turbo-jet.



*Bristol*



*De Hav*



*A-Sidd*