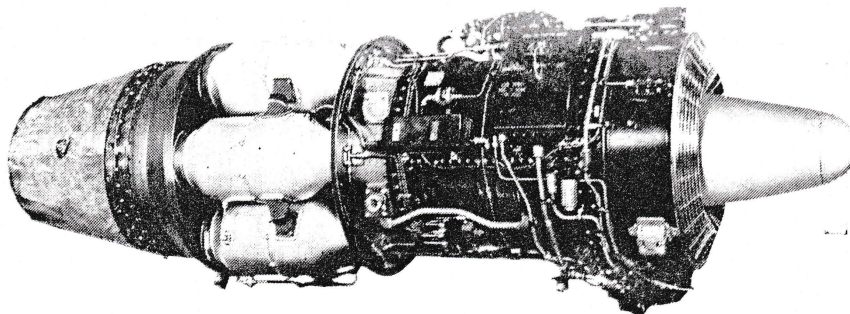


ORENDA

PRODUCTION of Orenda turbo-jets goes on and on, and though reduced demand has been reflected in reduced output, more than 3,000 of these Canadian-designed and built gas turbines have now been turned out for installation in CF-100's and Sabre 5's and 6's.

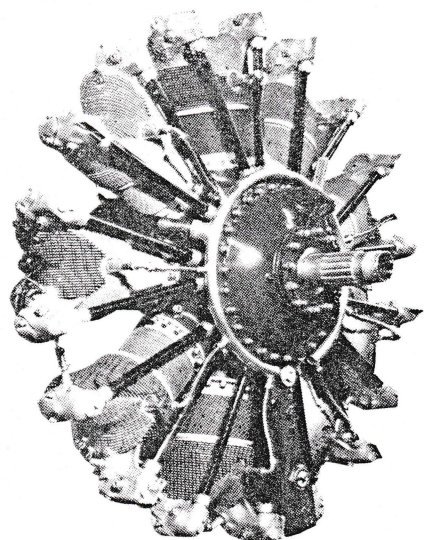
The Orenda has been in full scale production—by Orenda Engines Ltd. and the preceding A. V. Roe Canada Gas Turbine Div.—for about three and a half years, during which time some half a dozen different models have been built. Current production models are the same as a year ago, that is, the



Orenda 11 for the CF-100/4 and the Orenda 14 for the Sabre 6.

The first Orendas produced were rated at some 5,800 lbs./st./th., but steady development of the type has boosted this rating to 7,600 lbs. In parallel with this 35% increase in rated power, Orenda Engines Ltd. have effected a weight decrease of about 12%

—from 2,700 lbs. to 2,400 lbs. This, in spite of the fact that a major design modification, in the form of a switch from a single stage turbine to a two-stage type, was incorporated in the latest production models. In addition, the strategic materials used in the engine have been reduced by some 40%.



WASP

AFTER THREE years in production at Canadian Pratt & Whitney Aircraft Co. Ltd., the familiar R-1340 Wasp is being phased out. The production rate has faded away from a one time high of 50 per month to a mere trickle. In fact, only about 100 engines have been turned out in the past year, bringing the total for the entire program to approximately 1,000 complete units.

However, this engine is widely used all over the world, and the demand for parts is expected to continue high for many years to come. Since Canadian

P & W is the world's sole source of new parts for this particular engine, this would indicate that R-1340 components will continue to be a familiar sight at the Jacques Cartier, P.Q., plant.

Widely used aircraft which the R-1340 powers in one form or another include the de Havilland Otter, the Norseman, the Sikorsky S-55, the Harvard/Texan, and the Grumman Mallard. The new four-engined feeder transport being developed by Frye Corp. of Fort Worth, Texas, is also slated to be powered by the R-1340, initially at least.

Late last year, Canadian P & W purchased from the Crown all the tools and equipment that had been supplied for the Wasp program.

DELIVERIES of R-1820 Cyclones have been started by Canadian Pratt & Whitney Aircraft Co. Ltd. and the number of these engines completed by the Jacques Cartier, P.Q., firm will soon exceed 20.

Canadian P & W is manufacturing these engines under license from Wright Aeronautical. Some 400 Cyclones have been ordered by the Department of Defence Production for installation in the Grumman CS2F-1 anti-submarine aircraft being manufactured at Toronto for the Royal Canadian Navy by The de Havilland Aircraft of Canada Ltd. Value of this program has been estimated at over \$20,000,000, the spending of which will extend over five years.

Last Spring, the DDP awarded a

\$6,000,000 contract to Canadian Pratt & Whitney, announcing at that time that this contract covered the initial phase of the R-1820 program. A few months later, the company announced that in addition to buying the Wasp tools in its plant (see item on the R-1340 Wasp), it was spending \$1,500,000 on new capital equipment required, mainly in connection with the CS2F-1 engine program.

It is of interest that the R-1820 is the powerplant that is also used in the Sikorsky S-58, which Canadian P & W is considering manufacturing in Canada, and in the H-34 (military version of the S-58), the H-21A and the H-21B. The latter three machines are, of course, now in service with the RCAF on transport and search & rescue operations.

CYCLONE

