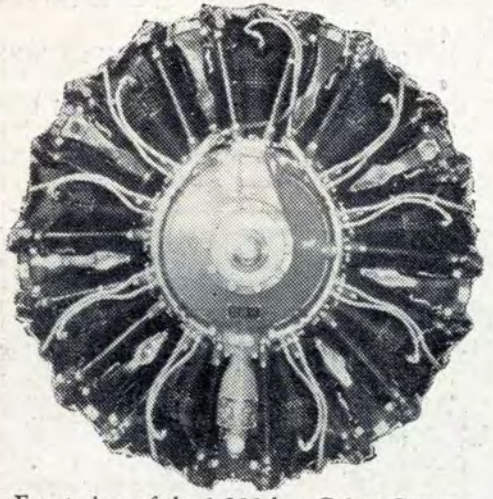
NEW 1,200 h.p. WRIGHT G-200 CYCLONE AERO ENGINE

EIGHT years ago the Wright Aeronautical Corporation, of Paterson, U.S.A., introduced a Cyclone aero engine slightly larger than had previously been offered. This power plant was designated as the Wright Cyclone R-1820-E and rated at 575 h.p., the highest rating issued under an Approved Type Certificate for a nine cylinder, single-row, radial air-cooled aero engine.



Front view of the 1,200 h.p. G-200 Cyclone which more than doubles the horse-power developed by Cyclones of same size produced eight years ago.

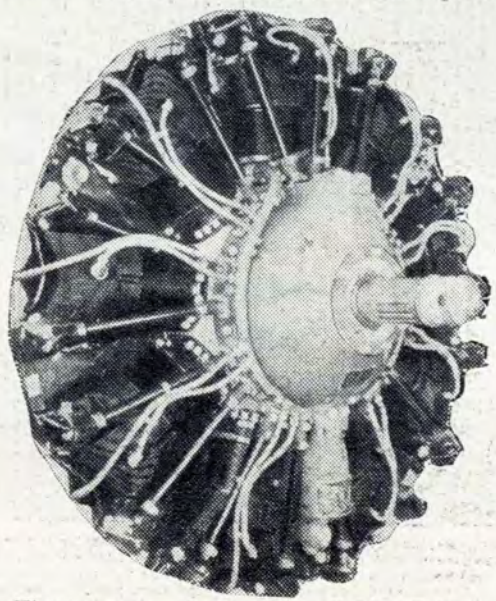
Since 1931 progressive development based upon research correlated with service experience has kept the single-row Cyclone at the forefront of engines of its type. Increases in power output have enabled it to maintain consistently its distinction of being the most powerful engine in its category.

Last month the Cyclone G-200 Series was announced, rated at 1,200 h.p. for take-off with correspondingly high outputs at high altitudes. It is significant that the rating of the new Cyclone represents more than 100 per cent. increase in the power output of the Cyclone since 1931 without increase in displacement.

Like its predecessors, the G-200 is a nine cylinder, single-row, radial, air-cooled engine of 1,823 cubic inches displacement. It has a bore of 6.125 inches and a stroke of 6.875 inches. Compression ratio is 6.7 : 1, while two supercharger gear ratios are provided if the engine is equipped with the Wright two-speed supercharger which figuratively converts any power plant to which it is applied into "two-engines-in-one."

The 1,200 h.p. output of the G-200 Cyclone is developed at 2,500 r.p.m. at sea level for take-off. For protracted operation at sea level the engine equipped with the two-speed supercharger is rated at 1,000 h.p. at sea level, 1,000 h.p. at 4,500 feet and 900 h.p. at 14,000 feet in the Wright Cyclone G-205 model.

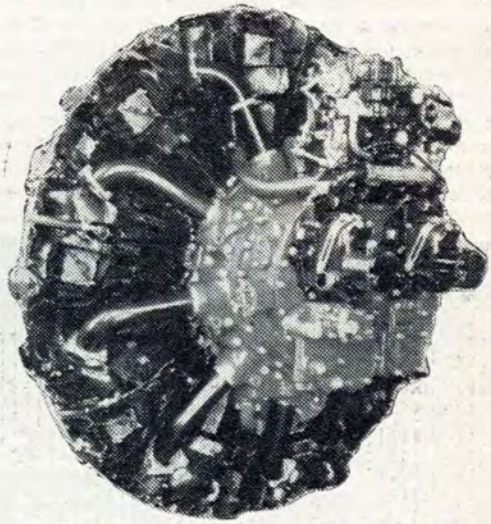
The Wright Aeronautical Corporation claims that at its rating of 1,200 h.p. for take-off, the new G-200 Cyclone has an initial cost per horse-power lower than that of any other aircraft engine of comparable horse-power manufactured to-day. The simplicity of its construction makes for further economy from the maintenance point of view.



Three-quarters front view of the G-200 Cyclone. Over 9,000 Cyclone engines of similar design have been produced by the Wright Aeronautical Corporation.

The G-200 Cyclone is supplied as a geared engine with propeller speed reduction units of either 3 to 2 or 16 to 9 ratio. The dry weight is 1,302 pounds or approximately 1.08 pounds per horsepower, the lowest ever achieved in a geared radial air-cooled type.

Cylinders of the G-200 Cyclone are similar to those of the G-100 Series engines. However, the cylinder barrel fins are more closely spaced and deeper, providing further cooling area. The cylinder heads have also been re-designed for deeper fins, new valves, valve ports and valve seats. The intake pipes have larger diameter inlets into the port and the exhaust port exit into the stack is larger, improving cylinder scavenging.



G-200 viewed from the rear. Accessory drives include fuel pumps, generator, magnetos, gun synchronizers, and tachometer.

The rocker boxes have been increased slightly in height to permit the use of bushings in the rocker arm bolt holes, but changes have been made in the rocker box covers to retain the same diameter for the engine.

The nose section of the G-200 Cyclone crankcase is of magnesium alloy, replacing the aluminium alloy nose used on previous models. The main crankcase, consisting of two halves bolted together at the centreline of the cylinders is of steel. The two halves are now bolted together internally and an integral flange is provided for the attachment of the nose section.