ITALIAN PRIVATE ENTERPRISE

A Visit to the Piaggio Factory: Its Products Reviewed: Flying the P-136 and P-148

At the last two Paris Salons the Italian Piaggio company has shown prototypes that were generally agreed to be among the most workmanlike exhibits of the whole show. In 1949 there was the P-136 light amphibian and last year the P-148 two-seat trainer.

Although a limited company, the concern is a family business and is controlled today by Ing. Armando and Dr. Enrico Piaggio, sons of Rinaldo Piaggio, who founded the firm in 1884. The original factory in the Sestri suburb of Genoa was engaged mainly on woodwork and the furnishing of liners, but by the turn of the century manufactured a great deal of railway rolling-stock. In 1915 the construction of aeroplanes was begun and many F.B.A. flying boats were built for the Italian Air Force in the First World War. Aircraft work did not stop with the coming of peace and in 1923 the first original design was built, the P-2 single-seater monoplane fighter. During the twenties and thirties a number of aircraft were built as prototypes. Many of these were remarkable for originality of outlook; in fact, it would not be unfair to say that Piaggio have been more notable for quality of production than for quantity.

Between the wars the firm acquired licences for both Bristol and Gnome-Rhône radial engines, from which they developed about sixteen radials of their own design, ranging from 370 to 1,750 h.p. Several of these engines were built in quantity for the aircraft of the Regia Aeronautica. Yet another activity of this versatile company was the design and manufacture of variable-pitch airscrews—a side that is continued on a small scale today.

The Piaggio concern expanded rapidly and by 1940 there were seven main plants, of some 3,250,000 sq ft area. During the war two of them—at Pontedera and Pisa—were badly damaged, although most of the firm's total of 2,000 machine-tools were saved and the number has since been brought up to nearly 3,000 by imports from the U.S.A. Despite the economic difficulties in post-war Italy, judicious management has preserved the concern as a well-equipped and organized industrial group with an excellent production potential.

One of the technical directors is Ing. Coradino d'Ascanio, who will be remembered as a pioneer of the helicopter. It was he who, asked to make an economical motor-bike, designed the unconventional Vespa, now built in very large numbers in Italy, and made under licence in France and Great Britain and Germany.

A few of the highlights of Piaggio aircraft work in the past may prove interesting.

By acquiring, in the middle twenties, a licence to build the Dornier Wal flying-boat, the firm introduced all-metal, stressed-skin construction to Italy. Then, in 1929, they designed and built the unconventional P-7 Schneider Trophy seaplane. This was a truly remarkable type and, had today's knowledge of clutch design and shaft drives been available, it might well have proved successful. It was a more-or-less straightforward, clean, shoulder-wing monoplane with a tractor airscrew. However, instead of being fitted with floats it had small hydrovanes and a marine propeller at the tail, driven from the 970 h.p. engine. At rest, buoyancy came from the fuselage (or hull, if you like) and the wing. As it taxied under the thrust of the marine propeller the hull was intended to lift clear until the airscrew could be engaged to augment the thrust and raise the speed until the wing could lift the aeroplane off the water. Today, over twenty years later, we see the same idea simplified, made practicable by the jet power unit and exemplified in the Convair Skate project.

In the thirties Piaggio designed and made several two-, three-and four-engined bombers, culminating in the 29-ton P-108B, which was built in quantity for the Regia Aeronautica. These various types were all fitted with slotted flaps, while the three-engined P-23R and the twin-engined P-32 were the first aircraft to be fitted with double-slotted high-lift flaps.

The P-108 seems to have been a good aeroplane and quite a large number were built. A 32-passenger pressurized commercial version was designed for L.A.T.I.'s South Atlantic service in 1940, but, because of Italy's entering the war, the fifteen examples built were used as troop transports. In 1943 the proto...

The remarkable Piaggio conception of a Schneider Cup seaplane in 1929. Initially driven by a marine propeller, the hull gradually rose out of the water and became airborne, the airscrew being clutched in as soon as there was sufficient clearance for it to revolve.