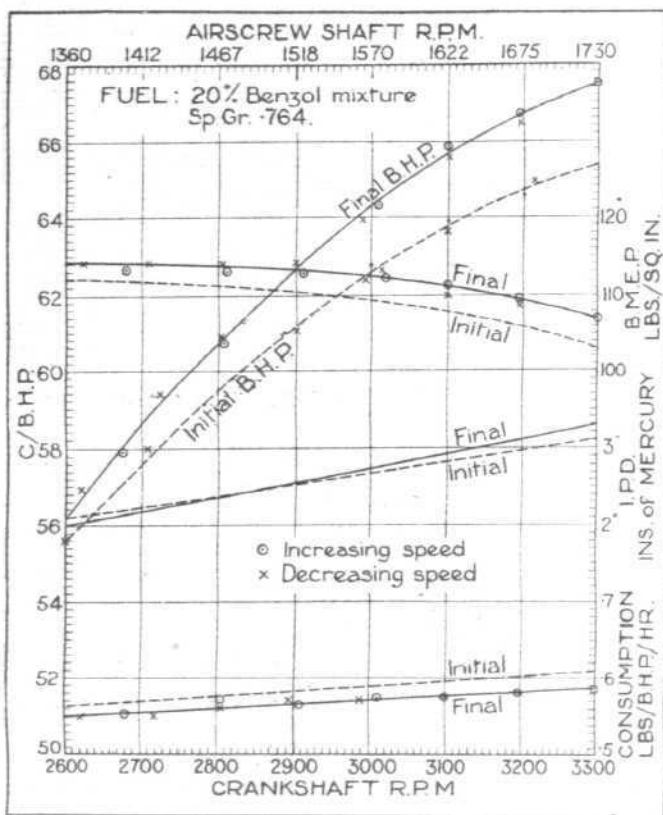


THE POBJOY P.I. : Rear and side elevations.



Power curves of the Pobjoy P.I. light 'plane engine.

operated by ball-bearing rockers and push-rods from a cam ring carried in the rear portion of the crankcase.

Full dual ignition is provided by two spark plugs per cylinder, fired by two single-cylinder B.T.H. magnetos through the medium of two special 7-point high tension distributors.

A unit comprising the oil sump, scavenger and supply

filters, and the two oil pumps, is carried at the bottom of the front portion of the crankcase. These two filters can be cleaned without disturbing the oil pipes from the tank. There are no oil pipes in the engine. The scavenge pump draws the oil from the sump and returns it to the tank, whence it is drawn by the service pump and supplied via drilled passages in the front cover to the front plain bearing of the hollow crankshaft under a pressure of 45 lbs./sq. in.

The reduction gear consists of a simple pair of herring-bone toothed gears, and runs remarkably smoothly and quietly. It is impossible to tell by sound that the engine is geared. In order to assist in steadying the gear drive, a small flywheel, weighing about 3 lb., is secured to the crankshaft in front of the crankshaft gear wheel. This flywheel serves a double purpose; it is hollow, and closed with a screwed cover easily accessible when the engine front cover is removed. Passages are so drilled in the crankshaft that the oil on its way to the big end must pass in and out of the flywheel.

Centrifugal force very effectively removes any foreign matter in the oil too fine to be stopped by the gauze filters in the sump. The capacity of this centrifugal separator is such that it does not require to be cleaned more frequently than every 100 hours.

The Zenith carburettor feeds the centre of a cast aluminium spider which distributes the mixture through the aluminium inlet pipes to the cylinders. These pipes are intended to pass through the engine mounting plate. A hot spot, heated by the exhaust from one cylinder carried in a shrouded pipe, is provided at the centre of the spider.

This system gives good slow running, together with instant acceleration.

Main Data

Cylinder bore	72 mm.
Cylinder stroke	87 mm.
Rated power and speed ..	60 b.h.p. at 3,000 r.p.m. (1,570 airscrew).
Maximum power	67.5 b.h.p. at 3,300 r.p.m.
Fuel consumption (80/20) ..	0.57 lbs./b.h.p./hour.
Oil consumption	0.023 pint/b.h.p./hour.
Weight of engine complete ..	115 lbs.
with airscrew hub and short exhaust pipe	115 lbs.
Overall diameter	25 inches.

Captain Sayers' New Post

CAPTAIN W. H. SAYERS, for a large number of years Technical Editor of *The Aeroplane*, has severed his connection with that journal and has joined Boulton & Paul, Ltd., as an Assistant Engineer under Mr. J. D. North. Captain Sayers was engaged on the actual construction of aircraft long before the war, and is thus by way of being one of our pioneers.

His connection with our esteemed contemporary was interrupted during the war, when he was stationed at Isle of Grain, and was there largely responsible for the Grain "Kitten," a diminutive biplane with 40 h.p. A.B.C. engine. On leaving the service Capt. Sayers returned to technical journalism once more, and is now leaving this field of activity for actual aircraft engineering. We wish him every success.