

**Webra Piccolo-Glo 0.8 c.c.**

The Piccolo-Glo is, in every way, different from the Sport-Glo. Of 0.8 c.c., and, therefore, belonging to the American "Half-A" class, it looks something like an Atwood and it revs like one.

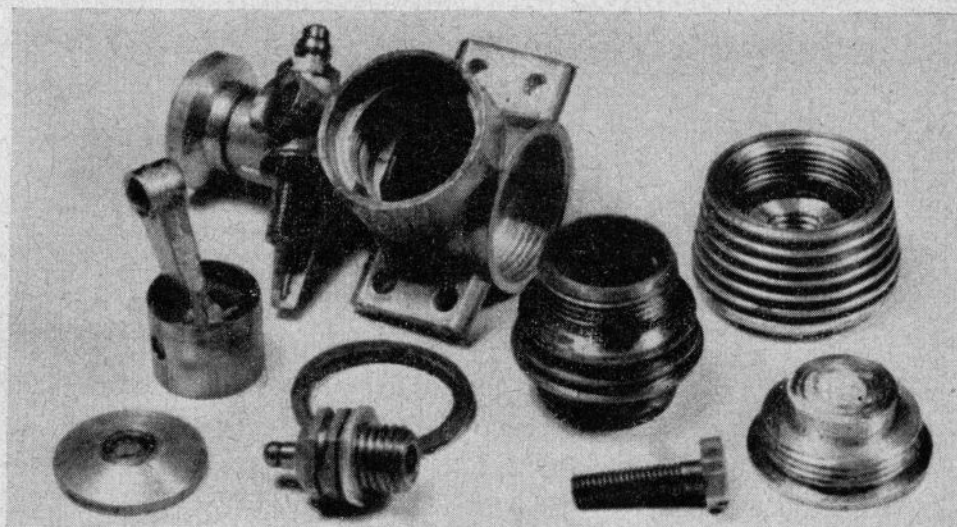
We have already said that the Piccolo-Glo bears no resemblance to its diesel namesake. This goes for its performance too. The diesel has had something of a mixed reception due to its somewhat unreliable starting characteristics and rather harsh running qualities. The Piccolo really should have had a new name, if only to dissociate it from the idiosyncracies of its predecessor.

The Piccolo-Glo is to the popular shaft-valve, reverse-flow scavenged, "Half-A" formula. Cylinder porting consists of three radial slits with three inclined circular transfer ports, on the Herkimer pattern, fed by two transfer passages between the liner and wall of the casting, into which the liner screws. A finned alloy barrel and head unit screws over the upper part of the liner. Graphited composition gaskets are used to seal the joints between the liner flange and casting and between the head and upper rim of the liner.

The complete engine is very small and compact and, as with the Sport-Glo, it features a rearwards inclined needle-valve assembly on the left side.

**Specification**

Type: Single-cylinder, air-cooled, reverse-flow scavenged two-stroke



The component parts of the Piccolo are clearly shown in this photo.

cycle, glowplug ignition. Crankshaft type rotary-valve induction. Flat crown piston. Central plug.

Swept Volume: 0.799 c.c. (0.0475 cu. in.).

Bore: 10.5 mm. (0.4134 in.).

Stroke: 9 mm. (0.3543 in.).

Stroke/Bore Ratio: 0.857 : 1.

Weight: 1.35 oz.

**General Structural Data**

Pressure diecast aluminium alloy crankcase and main bearing. Hardened alloy steel non-counterbalanced crankshaft with splined end and internal thread for prop drive hub and retaining screw. Unhardened alloy steel cylinder liner screwed into crankcase. Screw-on aluminium alloy finned cylinder barrel head. Cast-iron piston with pressed in gudgeon-pin and diecast aluminium alloy connecting rod. Plain bearings throughout. Brass spraybar type needle-valve with ratchet device. Beam mounting lugs.

**Test Engine Data**

Running time prior to test: 2 hours.

Fuel used: 20 per cent. Nitromethane, 55 per cent. I.C.I. Blending Methanol, 25 per cent. Duckhams Racing Castor-oil.

Ignition plug used: Webra 1.5 volt glowplug as fitted.

**Performance**

All very small glowplug engines develop relatively low b.m.e.p. and usually rely on very high peak revolutions to achieve a useful power output. The Piccolo-Glo is no exception to this theme and delivers its peak output at quite

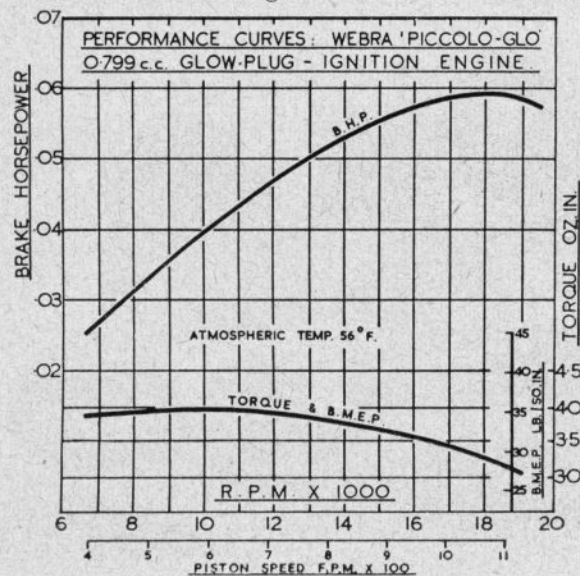
astonishingly high revs—some 18,000 r.p.m. in fact, where a b.h.p. of 0.059 was recorded on our test.

To achieve these speeds on a prop, a diameter of no more than 5 in. is called for, yet the engine can still be hand started quite easily. To round off the tests, we made a number of runs of five minutes duration at 17,500 r.p.m. The engine held this speed steadily and seemed perfectly happy, appearing no worse for its experience on being stripped down for inspection.

Starting is apt to be a little slow when the engine is cold and, in this respect, it is not as good as the Sport-Glo, but handling characteristics are otherwise quite good. In general, the performance is comparable with the well-known American engines of this capacity group.

Power/Weight Ratio (as tested): 0.70 b.h.p./lb.

Specific Output (as tested): 75 b.h.p./litre.



Watch out for next month's Special double test featuring two new British motors—the FROG 100 Mk II and 150 Mk II R