



POWER & PEDAL

with the SCOOTER

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THE "PIXIE" and the "BEAGLE"

THE two lightweight motorcycles shown by the B.S.A. Group at Earls Court last November are now ready for the market after most exhaustive testing designed to eliminate all potential troubles before the public are brought into the picture.

Known as the *Ariel "Pixie"* and the *B.S.A. "Beagle"* the machines are of 50 and 75 c.c. respectively but the power units are identical in all respects except capacity. Both are overhead valve fourstrokes with a stroke of 42 mm., the bores being 38.9 mm. for the smaller and 47.6 mm. for the larger unit. The cast iron cylinders are inclined and deeply spigoted into the crankcase to permit the use of a high level camshaft using short pushrods of light alloy and also driving the plunger oil pump.

Ball journal main bearings carry the built-up crankshaft with full disc flywheels but the big ends on the one inch crankpin are plain for silence and long life. Inclined valves in the alloy cylinder head are lubricated by pressure fed oil via the inlet pushrod tubes across the rocker gear and down the exhaust side with an auxiliary feed from small projecting stalactites in the rocker cover castings which drip oil onto the rockers. The valves are seated in cast iron inserts in the alloy head.

Carburettor is an *Amal* of the submerged jet type and the electrical system is based on a *Wipac* A.C. generator keyed to the crankshaft on the nearside of the engine with an output of 22.8-watts at 6-volts with its contact breaker under a detachable side cover.

Lubricating oil is carried in a 1 $\frac{1}{4}$ -pint sump beneath the crankcase with a generously sized filter in the return circuit, a feed to the clutch and geared primary drive returns by overflow to the main sump.

Peak output figures claimed are 3.87 b.h.p. for the *Pixie* and 5.07 b.h.p.

for the *Beagle* engine and top speeds of around 45 and 55 m.p.h. are claimed with very good fuel consumption figures. The complete machines weigh 120 lbs. and 140 lbs. and are priced at £81. 18. 0. and £95. 0. 0. including tax.

Tough testing

The final testing of the new models was a really tough 14 day and night gruelling over the mountains of Wales. Six machines, three of each, were ridden by B.S.A. Works apprentices averaging 5,000 miles each. These riders were used rather than professional testers because it was felt that they would simulate the treatment the machines could accept in the hands of the general public rather better.

At the end of the test all six were in good condition and some additional work was laid on in the form of repeated ascents of *Bwlch y Groes* before being ridden back to the factory. The British public may owe quite a lot to these lads who rode all hours in almost continuous rain and lived in tents for the whole period of the test.

Ariel "Pixie"

