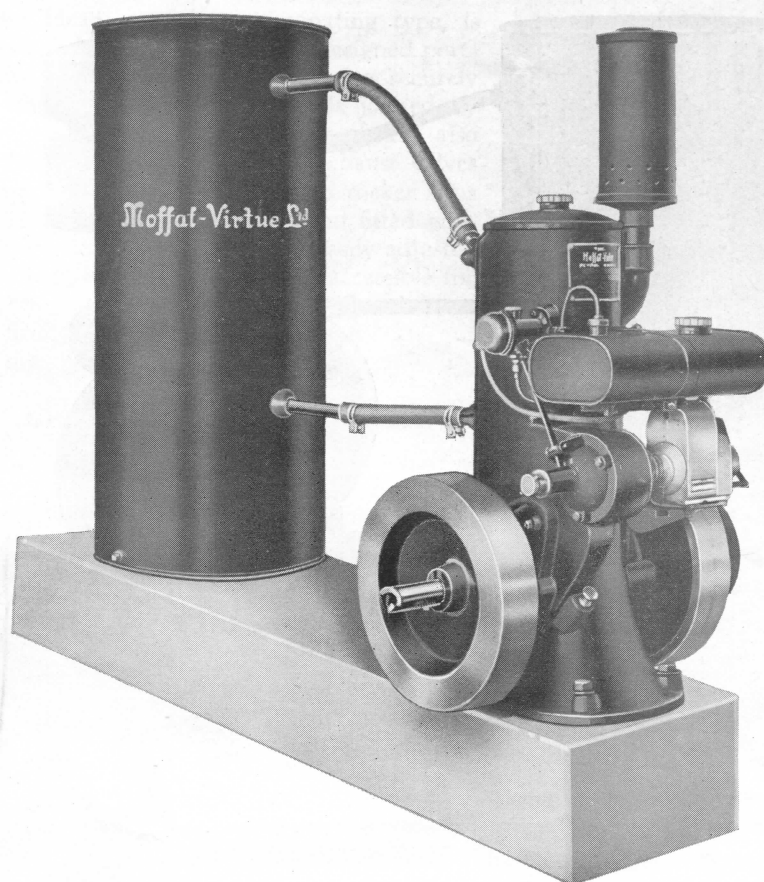


The
Moffat-Virtue
VERTICAL ENGINE



THE 2 / 2½ B.H.P. PETROL ENGINE

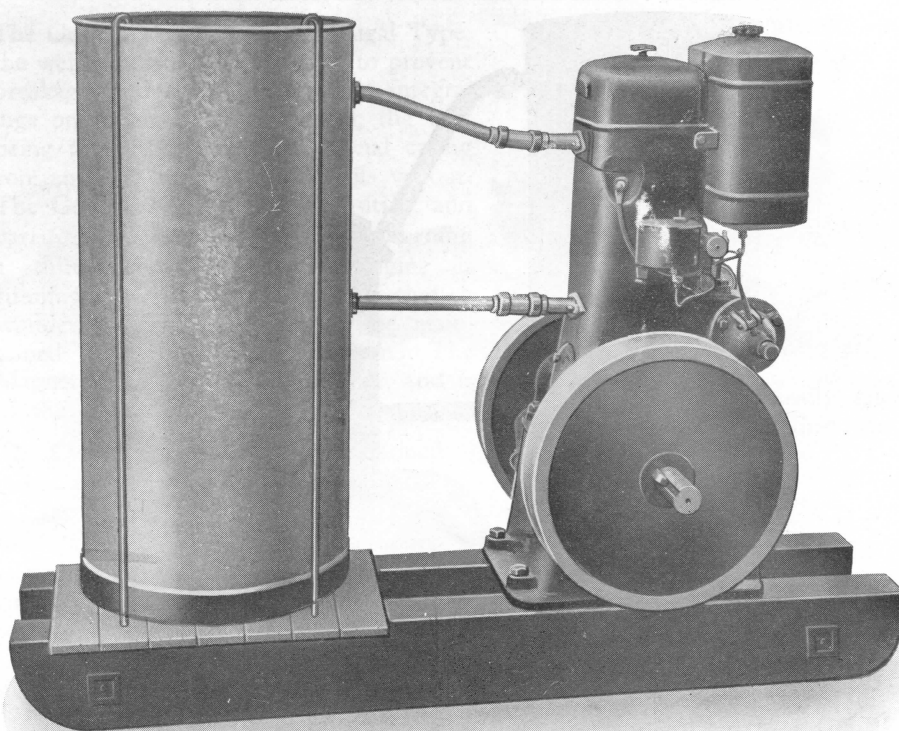
Brake Horse Power	2	2½	Length	...	...	...	15"
R.P.M.	...	...	850	1000	Nett Weight	...	225 lbs.
Height	...	...	2' 3"	Base Measurements	...	...	15" x 9"
Width	...	...	19"				

This Engine may be run at any speed from 500 to 1,250 r.p.m., with corresponding variations in power output and pulleys can be fitted on either side of the Engine or on both sides at small extra cost for second pulley.

Also supplied in 3/3½ B.H.P. and 4/5 B.H.P. Kerosene Type.

MOFFAT-VIRTUE LTD., 11-25 PALMER STREET, SYDNEY

The
Moffat-Virtue
VERTICAL ENGINE



ILLUSTRATING
ENGINE MOUNTED ON SLEDGE
COMPLETE WITH WATER-COOLING TANK



FOR General Farm use—in the Wool Shed, Dairy, or anywhere that dependable power is necessary—Chaffcutting, Sawing Wood, Pumping Water, Spraying Plants, etc., this arrangement is very popular.

A Set which is particularly easy to line up and gives a firm, true drive. For the Dairy a tap can be fitted as an extra to the Water Tank, and about 8 gallons of **Hot Water** is available after an hour's running for Washing Up.

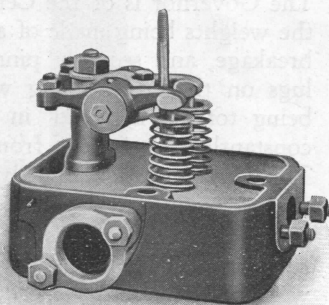
Any size can be mounted as above or on a all steel Transport.

MOFFAT-VIRTUE LTD., 11-25 PALMER STREET, SYDNEY

The
Moffat-Virtue
VERTICAL ENGINE

CYLINDER HEAD AND VALVE GEAR

The **Cylinder Head**, special non-detonating type, is water jacketed and fitted with properly designed ports for both inlet and exhaust, the head being securely fastened to the cylinder by heavy studs jointed by copper-asbestos gaskets. The cylinder head also carries the **valve gear**, both inlet and exhaust valves being mechanically operated by overhead rocker arms made of a special high tensile bronze and fitted with hardened tappets and adjusting screws, easily adjusted for silent running, extremely simple and accessible for dismantling, the whole being **totally enclosed** by a cover held firmly in place by a hand nut, this nut also covers the oil filler cap.



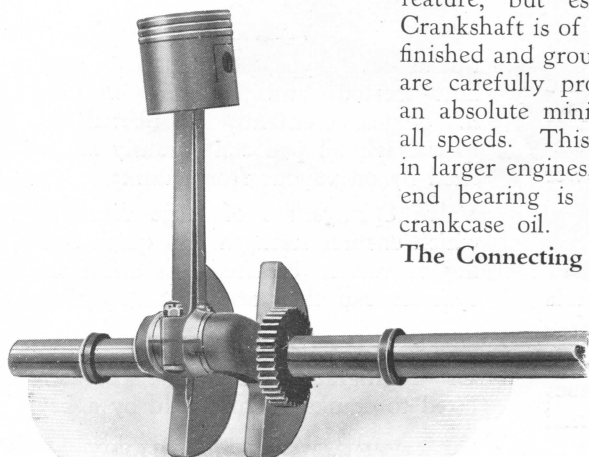
CRANKSHAFT, CONNECTING ROD AND PISTON

The **Crankshaft** is specially balanced, a very expensive feature, but essential in a first-class engine. The Crankshaft is of high-grade steel, drop forged, accurately finished and ground to close limits. The balance weights are carefully proportioned, thus reducing vibration to an absolute minimum and ensuring smooth running at all speeds. This is a special feature usually only found in larger engines, but its value to users is immense. Big end bearing is lubricated by scoop dipping into the crankcase oil.

The **Connecting Rod** is also drop forged, of high-grade steel, and is of particularly strong design.

The **Gudgeon Pin** is of high-grade hardened steel, ground to fine limits, and is of the full floating type.

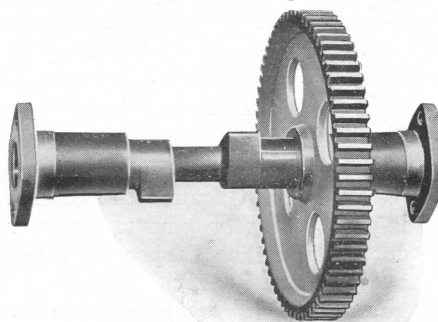
The **Piston** is of "ALLOY IRON" ground to fine limits and provided with three piston rings.



CAMSHAFT AND GEARS

Machined from special drop forged fine quality steel, **with cams integral with the shaft**. The Gear Wheels are cut from fine drop forged steel, ensuring silent running, also preventing breakages so fatal with cast-iron gears. **Helical Gears** are provided in $3/3\frac{1}{2}$ and $4/5$ H.P. Engines.

All gears run in Oil Bath and Cam Shafts have extra large renewable bearings.



MOFFAT-VIRTUE LTD., 11-25 PALMER STREET, SYDNEY

The Moffat-Virtue VERTICAL ENGINE

GOVERNOR AND MAGNETO UNITS

The Governor is of the Centrifugal Type, the weights being made of steel to prevent breakage, and securely pinned to integral lugs on the steel timing wheel, the unit being totally enclosed in special casing constantly lubricated from oil vapour. The Governor is extremely sensitive, and variation of speed can be made by turning a thumb-screw whilst the engine is running. It is so constructed that a wonderful range of speed can be maintained without cyclic variation. The Magneto is of Bosch manufacture, and is of the high tension rotary type.

The Cylinder and Crankcase are formed in one casting of ALLOY IRON which insures extremely smooth cylinder surface and which is ground to close limits, eliminating friction from the piston and rings, giving longer life to the cylinder walls against wear, retaining good compression essential to economy and power during a number of years of use.

THE BASE

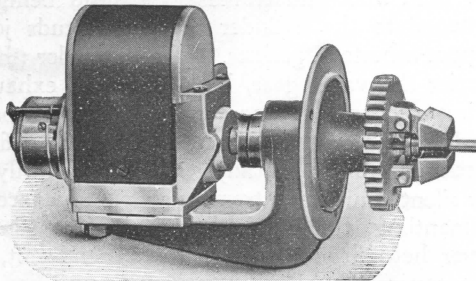
The lower half of the Crankcase forms the oil sump for the engine of very large capacity to insure that the oil may be maintained at an even level at all times and thus supplying oil to all internal gears and reciprocating parts.

An Oil Gauge Dipper is fitted to facilitate accurate replenishments and a suitable drain plug for renewing oil.

TAPPETS

Flat Head Type, made from a special steel and hardened, preventing excessive friction against the cams, having no rollers or pins to wear or get out of order. The Tappets are supported in particularly well designed long guides, which, being enclosed in the

VOLUME GOVERNING. CLOSE SPEED REGULATION.



crankcase, are automatically oiled, an important feature as against the open type of tappet-guide.

VALVES

Mushroom Type, of special steel, heat-treated and ground, working in guides constantly lubricated by special felt oil pad continuously moistened by oil vapour from crankcase.

Valve Springs are of large diameter, which ensures strength and quick closing of valves. Situated just under the cylinder cap they are most accessible.

FLYWHEEL

Of high-grade cast-iron, accurately fitted to crankshaft and held by a key.

INTERCHANGEABILITY

All Parts are manufactured to fine limits, and are carefully inspected and checked before assembly. As a result, Spare Parts can be supplied with a certainty that they will fit.

FINISH

All Engines are filled and well rubbed down and painted two coats of MV green.

All bright parts are well polished, giving a most pleasing appearance to the whole engine.

MOFFAT-VIRTUE LTD., 11-25 PALMER STREET, SYDNEY
