# PETTER

DIESEL

SEMI-DIESEL

Reliable

Simple





PETROL

PETROL-PARAFFIN

Economical

Durable



# The Splendid Modern Factory where Petter Oil Engines are Manufactured

The Westland Works of Petters Limited where Oil Engines and Aircraft are manufactured present a group of modern buildings laid out for the most efficient methods of production. They occupy a site of approximately 12½ acres at the west end of the town of Yeovil.

All the power employed at the Works is produced by Petter Engines totalling approximately 2,000 horsepower. The low cost of this power contributes to the economic production of highest quality Engines at competitive prices.

FOR ANY WORK-ANYWHERE

# PETTER

ENGINES

SIZES I1 TO 10 B.H.P.

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Detailed Catalogues on application.

## PETTERS LIMITED

WESTLAND WORKS, YEOVIL, ENGLAND

75b Queen Victoria Street, London, E.C.4.

GGOW - 97 Waterloo Street, C2. LIN - 30a Lower O'Connell Street.

The Perfected Product of 40 Years' Manufacturing Experience.

Publication 2267/1-Nov. 1934

Printed in England

## INTRODUCTORY

THE first Petter Oil Engine having been made in the year 1895, we have an almost unrivalled experience in the design and manufacture of Internal Combustion Engines. During the whole of the intervening period we have maintained a Research and Experimental Department, and the Engines described in this list are the latest product of our experience.

It will be seen that we make Engines for working with petrol, paraffin and Diesel oils, and it is our great desire that our customers shall choose the Engine which is best suited to their requirements. Our Service Department is at the disposal of Customers for advice on the selection and installation of Engines.

Only our smaller Engines up to 10 B.H.P. are described and illustrated in this catalogue. Particulars of our Stationary and Marine Oil Engines up to 540 B.H.P., Electric Generating Sets, etc., are contained in separate catalogues, copies of which may be obtained on application.

Our Engines are noteworthy for their extreme simplicity, great regularity in motion, economy, and low cost of upkeep, and they have received many medals and other public awards from the leading Agricultural and Engineering Societies.

Every Engine is fully tested at the Works, and carries our guarantee.

It always gives us great pleasure to see customers at the Works, who may like to come and choose their own Engines, or see them under test.

We depend very largely upon the personal recommendation of our customers for the development of our business, and it is our constant aim to see that every customer is a satisfied user.

PETTERS LIMITED

## DIESEL ENGINES



### GENERAL INFORMATION.

The Diesel Engine was originally introduced for Engines of larger power. In recent years intensive research has made it possible for the Diesel System to be adopted also in small power Engines, and in none more successfully than in the Petter Engines described in the following pages.

For ECONOMY IN OPERATION they have no equal. Their smooth running as a result of the correct application of the two-cycle principle is an outstanding feature, a cyclic regularity of 1/80 being obtained with standard flywheels.

The Atomic Diesel principle embodied in these small units enable them to be started instantly from cold by hand. There are no complicated starting devices such as secondary combustion chambers or starting lamps or ignition systems to bother with, just turn the crank and away she goes.

VARIABLE LOAD OPERATION such as is encountered in practically all small power jobs is readily met by these flexible power units. A sensitive governor controls the speed within close limits from full load to no load.

Being extremely simple in design and with but few moving parts there is nothing to go wrong. They are easy to operate and do not require skilled attention, while the name "Petter" means the acme of quality in design, material and workmanship.



#### BRIEF SPECIFICATION.

The following specification refers to our small Atomic Diesel Engines from 5 to 10 B.H.P. The larger sizes up to 540 B.H.P. are described in a separate catalogue.

ENGINE. Vertical two-stroke solid injection type. Totally enclosed. Starts instantly from cold by hand without auxiliary starting device. No inlet or exhaust valves and gear. CYLINDER. Hard close grained cast iron. Mirror-

like bore.

CYLINDER HEAD. Simple, symmetrical and exceptionally strong. Large accessible water jacket.

PISTON. Special cast iron with four pressure rings and one scraper ring.

CONNECTING ROD. High grade Carbon Steel Drop Forging of H. Section.

CRANKSHAFT. High tensile steel with balance weights. Ground to exacting limits.

BEARINGS. Main—roller bearing. Large end
—white metal in bronze shell. Small end—
phosphor bronze bush.

GOVERNOR. Controls amount of fuel injected.

Speed adjustable when running. Overload protection.

FUEL PUMP AND ATOMISER are of high class

manufacture.

LUBRICATION. Forced feed to cylinder and bearings.
COOLING. Tank cooling included as standard.
Hopper or radiator cooling alternatives.

FUEL. Gas oils, shale oils, light Diesel oils and other light fuel oils with a calorific value of 19,000 B.T.U.'s per lb. Fuel consumption is 0.43 to 0.45 pints per B.H.P. per hour.

RATINGS. Engines are tested to B.S.I. specifications for 12 hours continuous running under normal conditions at sea level, with one hour at 10% overload, without undue heating.

For operation at high altitudes the rating is reduced by 4% for each 1,000 feet over 350 feet above sea level. For each 5°F, rise over 62°F, allow 1% reduction in rating.

## DIESEL ENGINES

Patier



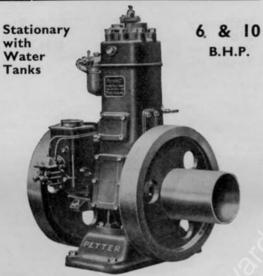
Horse Power	***	***	***	5	8
R.P.M	***	***	***	750	650
Maximum Cyclic				1/80	1/80
*Flywheels, diam.	× fi	ace	Ins.	22 × 3	26 × 34
**Standard Pulley, o	diam.	× face	Ins.	7 × 74	10 × 91
Fuel Tank	- Trans		Gal.	2	3
Water Tank		***	Gal.	83	122
Dimensions, L.		H. )	x W.		
(Engine only)				31×38×26	37×43×29
Weight, net, less			Cwt.	54	9
+PRICE				€55	€80

<sup>\*</sup> Engines can be supplied with one extra heavy flywheel on the pulley side, in place of two, at the same price.

\*\* Pulleys of other sizes available; see page 30.

<sup>†</sup> PRICE includes pulley, fuel and water tanks with piping, exhaust silencer (no piping), foundation bolts, starting handle, set of spare parts, can of lubricating oil, oiler and set of spanners.





Horse Power				6	10
R.P.M				900	800
Maximum Cyclic	Variat	tion	***	1/80	1/80
*Flywheels, diam.	× fac	e	Ins.	19 × 3	22 × 31
**Standard Pulley, of				7 × 71	10 × 91
Fuel Tank				. 2	3
Water Tank	***		Gal.	83	122
Overall Dimensio	ns, L.	× H.	× W.		
(Engine only	)		Ins.	31×35×26	37×418×29
Weight, net, less	tank	***	Cwt.	61	91
TPRICE	***	***	***	£37 10 0	£85 0 0
Code Word	***			ABCAR	ABNER

\* Engines can be supplied with one extra heavy flywheel on the pulley side, in place of two, at the same price.

\*\* Pulleys of other sizes available; see page 30.

† PRICE includes pulley, fuel and water tanks with piping, exhaust silencer (no piping), foundation bolts, starting handle, set of spare parts, can of lubricating oil, oiler and set of spanners.

## DIESEL ENGINES



5 & 8



Horse Power	***	***	***	5	8
Maximum Cyclin	· Varia	rion	***	750 1/80	650 1/80
Flywheels, diam			Ins.	22 × 3	
Standard Pulley,	diam.	× face	Ins.	7 × 74	26 × 31 10 × 91
Fuel Tank	***		Gal.	2	3
Overall Dimensi				341×481	401×541
L. x H. x	W.		Ins.	×25	×28
Weight, net	***	***	Cwt.	6	91
PRICE Code Word	***	***	***	£55	£80
Code Word	***	***	***	ABBIA	AFGAR

Engines can be supplied with one extra heavy flywheel on pulley side, in place of two, at the same price.

Pulleys of other sizes available; see page 30.

† PRICE includes pulley, fuel tank with piping, hopper, exhaus silencer (no piping), foundation bolts, starting handle, set of spare parts, can of lubricating oil, oiler and set of spanners.

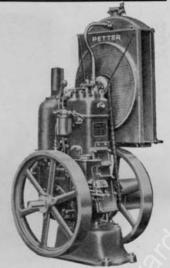


Radiator Cooled-Stationary

> 5 to 10 B.H.P.

Note.-Owing to the generous proportions of the radiator water pump circulation is unnecessary; therefore the full rated horse power of the Engine is available at the shaft.

No power need be deducted for driving the radiator fan.



Horse Power R.P.M	5 750	900	8 650	10
Maximum Cyclic Variation	1/80	1/80	1/80	1/80
*Flywheels, dia × face Ins. **Standard Pulley.	22×3	19×3	26×3½	22×31
dia. × face Ins. Fuel Tank Gal.	7×71	7×71	10×91	10×91
Overall Dimensions L.×H.×W. Ins.	341×49 ×25	341×46 ×236	40±×52± ×28±	40½×50 ×26½
Weight, net Cwt. †PRICE Code Word	61 £65 Atbee	£68 10 Atell	101 £92 Agrio	£99 Algra

\* Engines can be supplied with one extra heavy flywheel on pulley side, in place of two, at the same price.

\*\* Pulleys of other sizes available; see page 30.

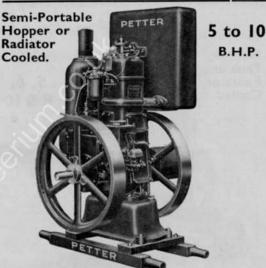
† PRICE includes Engine with attached radiator and belt driven fan, pulley, exhaust silencer (no piping), foundation bolts, starting handle, can of lubricating oil, oller and set of spanners.

#### Page Eight

### DIESEL ENGINES



B.H.P.



#### HOPPER COOLED.

Horse Power	5	8
Dimensions, L. × H. × W. Ins.	341×54×36	401×61×44
*Weight, Net Cwt.	6-1	91
†PRICE	£56	£81
Code Word	Tales	Treno

#### RADIATOR COOLED.

Horse Power Dimensions, L.×H.×W. Ins.	34½×54½ ×36	6 34½×51½ ×36	8 40½×58½ ×44	10 40½×56½ ×44
*Weight, Net. Cwt.	6-85	7-6	- 11	111
†PRICE Code Word	£66 Tefan	£69 10 Tewan	£93 Tequo	£100 Tedor

For further particulars of Engines refer to pages 7 and 8. · Weights include Engine with cooling equipment mounted on substantial wood skids.

† PRICE includes Engine with cooling equipment on skids with pulley, fuel tank, exhaust silencer (no piping), starting handle, set of spare parts, can of lubricating oil, oiler and set of spanners.

Page Nine



#### **PORTABLE**



These Engines can be supplied as a portable arrangement mounted on a sturdy wood and steel trolley with cast iron wheels and swivelling front axle.

Cooling may be by hopper on the 5 and 8 B.H.P. Engines, by tank on the 5 and 6 B.H.P. Engines, by radiator and fan on all Engines, or by spray on the 8 and 10 B.H.P. Engines (see page 11).

#### Page Ten

## DIESEL ENGINES



## **PORTABLE**

Radiator and Hopper Cooled 5, 6, 8 & 10 B.H.P.

Horse Power R.P.M	5 750	900	8 650	800
Minimum Cyclic Variation	1/80	1/80	1/80	1/80
Flywheels, dia.	22×3	19×3	26×31	22×31
Standard Pulley, dia. x face Ins. Fuel Tank Gal.	7×71	7×7½ 2	10×91 3	10×91
RADIATOR COOLED Dimensions, L.×H.×W.Ins. **Weight, Net Cwt. †PRICE Code Word	43×62 ×341 9 £75 Tibio	43×59 ×341 278 10 Tidar	60×65§ ×40§ 14§ £110 Tivac	60×63 ×40½ 15½ £117 Tinan
HOPPER COOLED Dimensions, L.×H.×W.lns. **Weight,	43×63± ×34±	-	60×751 ×401	_
Net Cwt. †PRICE Code Word	81 £65 Tubla	Ξ	£98 Tonac	Ξ

<sup>\*</sup>Other pulleys available; see page 30.

<sup>\*\*</sup> Weight includes Engine with cooling equipment mounted on trolley.

<sup>†</sup> PRICE includes Engine with cooling equipment on strong trolley with cast iron wheels, pulley, fuel tank with piping, exhaust silencer (no piping), starting handle, set of spare parts, can of lubricating oil, oiler and set of



## SEMI-DIESEL ENGINES

S

DESIGN FEATURES.

These Engines are sturdy, simple, reliable and economical. Thousands are running with unskilled supervision in all countries, costing practically nothing in upkeep.

Operating on the low compression two-stroke principle, with solid Injection of fuel, they are started instantly from cold with the Petter Patent Cold Starter. This method of starting received the award of the Silver Medal of the Royal Agricultural Society of England.

There are no valves in the cylinder head, or complicated valve gear. The enclosed vertical design ensures cleanliness and good appearance combined with accessibility.

The cylinder and large end bearing are pressure lubricated by the Calibrater Lubricator. Main bearings are ring oiled.

A FUEL FILTER strains the fuel as it is raised by crankcase air pressure from the tank in the Engine base to the injection pump.

SPEED REGULATION is effected by a patent shaft type centrifugal governor which controls the amount of fuel injected.

A WATER TANK with thermo-syphon cooling is the standard arrangement.

ROTATION is anti-clockwise at pulley end.

FUEL. The 10 B.H.P. Engine will run on heavy fuel oils or refined petroleum (kerosene). For the 6 B.H.P. the most suitable fuels are refined petroleum gas oil, other light oil not over 0.86 spec, gravity. Many of these Engines are operating in garages, etc., on waste oil from crankcases of cars, and paraffin cleanings, producing electric light and power at negligible cost.

EXTRA EQUIPMENT when ordered, (1) Special Flywheels for Electric Drive, (2) Special Pulleys, (3) Friction Clutch Pulleys, (4) Air Filters, (5) Extra Water Tanks, (6) Auxiliary Silencers, (7) Waterproof Sheets for Portable Engines.

RATINGS. For operation at high altitudes the rating is reduced by 4% for each 1,000 feet over 350 feet above sea level. For each 5° F. rise over 62° F. allow 1% reduction in rating.

SEMI - DIESEL ENGINES





Horse Power R.P.M Maximum Cyclic Variation	6 725 1/80	10 680 1/80
Flywheels, diam. × face Ins.	22 × 3	26 × 31
*Standard Pulley, diam. × face Ins.	7 × 74	10 × 91
Fuel Tank Gal.	21	44
Water Tank Gal. Weight, net, less tank Cwt.	51	81
Dimensions L.× H.× W. Ins.	331×32×281	401×391×331
†PRICE	£50 SEMID	£80 SEMAL

Semi-Diesel Engines of 15 and 21 B.H.P. are also manufactured. Particulars and prices on application.

\* Pulleys of other sizes available; see page 30.

† PRICÉ includes Engine complete with pulley, fuel and water tanks with piping, exhaust silencer (no piping), foundation bolts, starting handle, set of spare parts, box of 150 cold starters, can of lubricating oil, oiler and set of spanners.



#### SEMI - DIESEL ENGINES



Horse Power	***	***	***	6	10 1
R.P.M				725	680
Maximum Cyclic	Vari	ation	N	1/80	1/80
Flywheels, diam.	× f	ace	Ins.	22 × 3	26 × 31
*Standard Pulley, d	liam.	× face	Ins.	7 × 74	10 × 9
Fuel Tank	***	***	Gal.	24	41
Water Tank			Gal.	32	83
Weight, net	***		Cwt.	8	15
Dimensions, L. X	H.	× W.	Ins.	48×66×30	63×84×44
†PRICE	***	***		£58	£95
Code Word				SENOW	SENIN

<sup>\*</sup> Pulleys of other sizes available; see page 30.

#### Page Fourteen

## M Type UNIVERSAL ENGINES Magneto OIL ENGINES

Start on Petrol, work on Paraffin or Petrol

#### DESIGN FEATURES.

Many tens of thousands of these reliable little Engines in use all over the world. These Engines are designed to work on paraffin (kerosene), but they work equally well on petrol (gasoline), if this is preferred.

Their efficiency is largely due to the Petter carburettor or atomiser which is superior to any other paraffin carburettor. No fuel oil enters the crank case, or comes into contact with the lubricating oil. Perfect atomisation is ensured, and thorough mixture with the incoming air, thus securing good combustion.

BALL AND ROLLER BEARINGS are used for the crankshaft. These require but little attention and reduce friction to a minimum.

FORCE FEED LUBRICATION is provided to the large end bearing.

INSTANT STARTING by hand on petrol is ensured by a High Tension Magneto of first class British Manufacture.

THROTTLE GOVERNING by a flywheel type governor controls the amount of fuel according to the load and contributes to steady smooth running.

COOLING: Engine may be supplied with water tank or hopper as required.

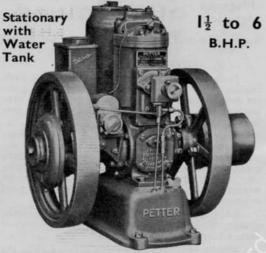
ACCESSORIES: Special pulleys, air filters and waterproof sheets are available. See pages 30-31.

PETTER "M" TYPE ENGINES are ideal for driving all kinds of farm and contractors' machinery, etc. The enclosed design ensures perfect operation under the most trying open air conditions.

<sup>†</sup> PRICE includes standard equipped Engine (see page 13), mounted on strong wooden trolley with cast iron wheels.

ENGINES

## UNIVERSAL OIL ENGINES



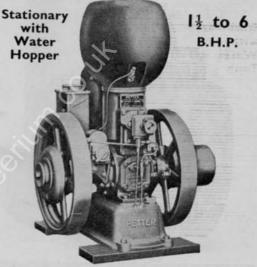
14	2	3	4	5	6
750	1000	700	850	600	725
16×21	16×21	17×21	17×21	22×3	22×3
4×4	4×4	6×6	6×6	7×7±	7×7±
1.2	1.2	1.5	1.5	2.5	2.5
32	32	48	48	83	83
2	2	2.75	2.75	4.5	4-5
22×	22×	26×	26×	30∄×	302×
				32½×	321×
				241	241
					£43 Tacel
	750 16×2‡ 4×4 1-2 32 2 22× 24× 18 £22 10	750 1000 16×2½ 16×2½ 4×4 4×4 1·2 1·2 32 32 2 22× 24× 18 18	750 1000 700 16×2\(\frac{1}{2}\) 16×2\(\frac{1}{2}\) 17×2\(\frac{1}{2}\)  4×4 4×4 6×6 1·2 1·2 1·5 32 32 48 2 2 2.75 22× 22× 26× 24× 24× 25\(\frac{1}{2}\) 18 18 20\(\frac{1}{2}\) 16 22 10 630	750 1000 700 850 16×2\(\frac{1}{2}\) 16×2\(\frac{1}{2}\) 17×2\(\frac{1}{2}\) 17×2\(\frac{1}{2}\) 17×2\(\frac{1}{2}\) 4×4 4×4 6×6 6×6 1·2 1·2 1·5 1·5 32 32 48 48 2 2 2·75 2·75 22× 22× 26× 26× 26× 24* 24× 25\(\frac{1}{2}\) × 25\(\frac{1}{2}\)	750 1000 700 850 600 16×2\(\frac{1}{4}\) 16×2\(\frac{1}{4}\) 17×2\(\frac{1}{4}\) 17×2\(\frac{1}{4}\) 22×3 4×4 4×4 6×6 6×6 7×7\(\frac{1}{4}\) 1·2 1·5 1·5 2·5 32 32 48 48 83 2 2 2.75 2·75 4·5 22× 22× 26× 26× 30\(\frac{1}{4}\) × 24× 25\(\frac{1}{4}\) × 25\(\frac{1}{4}\) × 25\(\frac{1}{4}\) × 22\(\frac{1}{4}\) 18 18 20\(\frac{1}{4}\) 20\(\frac{1}{4}\) 24\(\frac{1}{4}\) 221 10 630 630 630

\* Pulleys of other sizes available; see page 30. \*\* Weight does not include water tank.

† PAIC: Includes pulley, fuel and water tank with piping, exhaust silencer (no piping) foundation only, starting handle, set of spare parts, can of lubricating cil, oiler and set of spanners. Page Sixteen

UNIVERSAL OIL **ENGINES** 

ENGINE



Horse Power R.P.M Flywheels,	750	1000	3 700	<b>4</b> 850	600	725
dia.xface Ins. *Standard Pulley, dia.	16×21	16×21	17×21	17×21	22×3	22×3
× face Ins	4×4	4×4	6×6	6×6	7×7±	7×71
Gal. Weight	1.2	1.2	1-5	1.5	2.5	2.5
net Cwt.	2·25 22×	2·25 22×	3·25 26×	3-25 26×	5·25 303×	5·25 301×
Dimensions Ins	291 ×	291× 18	34× 201	34× 201	41±× 24±	411× 241
PRICE	£21 Tagol	£21 Tagey	£28 Tagad	£28 Tadio	£40 Tagis	£40 Todra

Pulleys of other sizes available; see page 30.
PRICE includes pulley, fuel tank with piping, hopper, exhaust silencer (no piping), foundation bolts, starting handle, set of spare parts, can of lubricating oil, oiler and set. of spanners.

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#### UNIVERSAL OIL ENGINES



11						
Horse Power R.P.M Flywheels.		1000	700	850	600	725
dia.xface Ins. *Standard	16×21	16×2‡	17×2½	17×21	22×3	22×3
Pulley, dia. × face Ins Fuel	4×4	4×4	6×6	6×6	7×7±	7×71
Tank Gal. Water	1.2	1.2	1.5	1-6	2-5	2.5
Tank Gal. Weight	231	231	23∄	231	32	32
Net Cwt. Dimensions LxHxWins. †PRICE Code Word	£23 10	£23 10	46×26 £31	46×26	5·25 56×52½ ×30¾ £44 Tewid	× 301 £44

\* Pulleys of other sizes available; see page 30.

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PRICE includes Engine with water tank and tool box, on wood skids, pulley, fuel tank with piping, exhaust silencer (no piping), foundation bolts, starting handle, set of spare parts, can of lubricating oil, oiler and set of spanners. UNIVERSAL OIL ENGINES

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Horse Power R.P.M.	750	1000	700	850	5	6
Flywheels.	/30	1000	700	850	600	720
dia.×face Ins.	16×21	16×21	17×2+	17×21	22×3	22×3
*Standard Pulley, dia.						
× face Ins.	4×4	4×4	6×6	6×6	7×74	7×71
Fuel Tank	The second of					
Gal.	1.2	1.2	1.5	1.5	2.5	2.5
Weight,						
net Cwt.	2.75	2.75	3.75	3.75	6	6
Dimensions,	281×	28 ×	28∄×	281×	331×	331 ×
LxHxW	421×	421 ×	461×	461×	56 1 ×	56 1 ×
lns	251	251	26 %	26 %	31 1	31 1
PRICE	£24	£24	£32	£32	£45	£45
Code Word	Tedal	Tedes		Tidro	Tekim	

\* Pulleys of other sizes available; see page 30.

† PRICE includes Engine with hopper on strong trolley, pulley, fuel tank, with piping, exhaust silencer (no piping), starting handle, set of spare parts, can of lubricating oil, oiler and set of spanners.



**ENGINES** UNIVERSAL OIL



Horse Power R.P.M	750	1000	3 700	850	600	725
Flywheels, dia. × face Ins. •Standard		16×21	17×21	17×21	22×3	22×3
Pulley, dia. × face Ins. FuelTankGals.	4×4 1·2	4×4 1·2	6×6 1·5	6×6 1-5	7×7± 2·5	7×7± 2·5
Water Tank Gals.	231	231	231	231	32	32
Weight, Net. Cwt. Dimensions, L in Ins. H PRICE Code Word	411 611 30 £27 10	4 41½ 61¾ 30 £27 10	4-75 413 614 314 £37 Temey	4-75 411 611 311 £37 Tunen	7 45 65‡ 31‡ £50 Tepol	7 45 651 311 £50 Triba

<sup>\*</sup> Pulleys of other sizes available; see page 30.



## UNIVERSAL AIR COOLED PETROL ENGINES

#### DESIGN FEATURES.

These Engines are supplied in two sizes, i.e., 4 B.H.P. twin cylinder horizontally opposed, and 2 B.H.P. single cylinder, and form ideal small power petrol Engines (4-stroke) in which air cooling (provided by a flywheel fan) is used with efficiency equal to water cooling. The absence of water jackets and hoppers prevents injury to the Engine through failure to refill the hopper when required, or from frost in winter.

The AIR COOLING is satisfactory even in tropical countries, a prolonged test having been made on full load in a chamber heated to 140° F.

TWO POWER SHAFTS, one full speed for direct coupling, the other half speed for belt drives, adapts the Engines to all classes of work.

FORCED LUBRICATION is provided by a pump which supplies oil to all parts.

IGNITION IS by first class British High Tension Magneto with earthing switch for stopping.

A CENTRIFUGAL GOVERNOR operates the throttle to control the Engine speed. The speed may be varied when running.

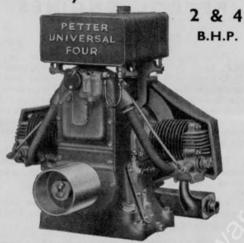
The RATING is for normal running and the Engines can carry considerable overloads for short periods.

The FUEL TANK is normally mounted over the Engine, and an exhaust silencer is fitted.

<sup>†</sup> PRICE includes standard equipped Engine (see page 16), mounted on strong trolley with tool box.

AIR COOLED PETROL ENGINES

## Stationary



Horse Power Engine Crankshaft, R.P.M	1500	1500
Half Speed Shaft, R.P.M	750	750
*Standard Pulley (half speed shaft) diam. x face Ins.	5 × 51	6 × 7
Fuel Tank Gal. Weight, net Cwt.	2.25	2.25
Dimensions L.× H.× W. Ins.	207×24×191	201×24×241
†PRICE	SOLOT	£33 TWINN

<sup>\*</sup> Pulleys of other sizes available; see page 30.

Half coupling can be ordered in place of pulley at same price.

† PRICE includes pulley, fuel and lubricating oil tanks with piping, exhaust silencer (no piping), foundation bolts, starting handle, set of spare parts, can of lubricating oil, oiler and set of spanners.

#### AIR COOLED PETROL ENGINES



## **Portable**

2 & 4 B.H.P.

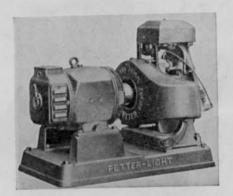


Horse Power	2	4
Engine Crankshaft, R.P.M.	1500	1500
Half Speed Shaft, R.P.M Standard Pulley, Half Speed	750	750
Shaft, dia. x face Ins.	5 × 54	6 × 7
Fuel Tank Gals.	5 × 51 2:25	2-25
Weight, Net Cwt.	3t	31
PRICE H.×W.Ins.	381×411×301	381×411×301
Code Word	£25	£36
Code Word	Uport	Uposo

<sup>\*</sup> Pulleys of other sizes available; see page 30.

<sup>†</sup> PRICE includes standard Engine (see page 22), mounted on strong wooden trolley.

## **Electric Generating Sets**



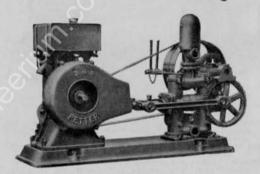
Petter Lighting Sets are available in a complete range from 750 watts to 400 K.W. The range of small sizes suitable for country houses, farms, hospitals, cinemas, churches, etc., is fully described and illustrated in a separate catalogue.

The Automatic Sets with Emergency Lighting control are especially suitable for Cinemas and Hospitals as an insurance against failure of main supply.

Submit your lighting problems to the Technical Department of Petters Ltd., who will gladly and without charge or obligation, render their advice for your consideration.

## PUMPING PLANTS

FROM 350 TO 4,000,000 G.P.H. With Petrol, Paraffin or Diesel Engines.



PUMPS FOR ALL PURPOSES
STATIONARY OR PORTABLE.

Shallow Well.

Deep Well.

Irrigation.

Contractors'.

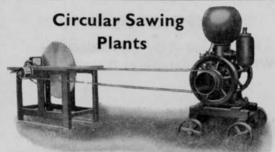
Centrifugal, Plunger, Diaphragm or Gear Type.

Engine or Motor Driven.

Please refer to Separate Catalogue for further particulars of Pumping Plants.



### COMBINATION SETS



The Universal Circular Saw Plant is suitable for sawing timber for gateposts, fencing, firewood and similar duties.

The plant consists of:—

Stationary: Petter "M" Type Oil Engines (described on pages 15 to 19) with large water hopper; sawbench; 25-ft. belting.

Semi-Portable: Engine on four wheeled trolley, Sawbench and belting as illustrated.

Portable: Engine and sawbench mounted together on four wheeled steel under carriage with drawbar and swivelling from axle.

These plants can also be supplied with the Air-cooled Petrol Engine described on pages 21 to 23. Particulars on application.

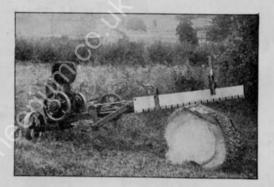
Engine B.H.P. Diam. of Saw (In.)	14	<b>3</b> 18	24
Stationary— PRICE Code Word Semi-Portable—	£32	£38 10	£51 10
	Sobra	Socin	Sogol
PRICE	£34 10	£42	£56
Code Word	Sorve	Sorto	Sotle
PRICE	£41 10	£48	£62
Code Word	Sovde.	Sovno	Sovag
Extra for Sawguard PRICE Code Word	£2 Sowfi	£2 Sowon	£2 Sowta

Note.—Prices include Hopper Cooled Engine with equipment outlined above.

## COMBINATION SETS



## POWER LOG SAW



The illustrated cross cutting log saw with a 3 B.H.P. "M" Type Engine will cut through a log of elm 2-ft. 6-in. diameter in about five minutes, or of oak in seven to eight minutes.

The saw blade is driven through a chain reduction gear and clutch. It is mounted on skids with swivel wheels.

The adjustable disc type clutch is  $11\frac{1}{4}$  inches in diameter and has a ferobestos lining. Fitted to the Engine shaft the clutch enables the saw to be started and stopped with the Engine running.

Weight, complete, Net. Cwt. 6¼
PRICE, Saw complete with Engine £55
Code Word ... ... Sokut

This saw plant may also be fitted with a 4 B.H.P. Air-Cooled Engine as described on pages 21 to 23.



#### ACCESSORIES

#### PLAIN PULLEYS.

Optional pulleys for the Engines described herein are When a pulley other than the standard size. marked (St'd), is required, the price will be adjusted accordingly.

ENGINE.		PULLEY.		PRICE.
	Dia., ins.	Face, Ins.	Bore, ins.	
Air Cooled Petrol 2 & 4 B.H.P.	5 (St'd) 6 7 8 9	5.55.55.55.55.55.55.55.55.55.55.55.55.5		7/- 7/- 9/6 11/- 13/6 15/6 17/6
Гуре " М " I	4 (S'td) 5 6 7 8 9	4 4 4 4 4 4	Bolted to arms of Flywheel	10/- 15/- 17/6 20/- 22/6 25/-
Type '' M '' 3 & 4 B.H.P.	4 5 6 (S'td) 7 8 9 10	6 6 6 6 6 6	Bolted to arms of- Flywheel	15/- 15/- 15/- 25/- 27/6 30/- 33/- 36/6
Type " M " Type " S " & Diesel S and 6 B.H.P.	6 7 (S'td) 8 9 10 11 12 13 14 15 16	7-10-10-10-10-10-10-10-10-10-10-10-10-10-	1	17/6 17/6 30/- 32/6 35/- 36/6 38/- 40/- 42/- 44/- 46/6
Type "S" 10 B.H.P. and Diesel 8 & 10 B.H.P.	8 9 10 (S'td) 11 12 13 14 15 16 17 18	99999999999999999999999999999999999999	21 21 21 21 21 21 21 21 21 21 21 21 21	25/- 25/- 25/- 37/6 46/- 43/- 45/- 47/6 50/- 52/6 55/-

### ACCESSORIES



Friction Clutch Driving Pulleys.

Friction Clutch Driving Pulleys can be supplied at an extra charge.

" Vee " Belt Pulleys.

For close belted drives the "Vee" belt transmission is very suitable and can be supplied at an extra charge.

Flywheels for Electric Drive.

The Semi-Diesel and Diesel Engines can be supplied with single disc flywheels for electric drive, the cyclic variation being 1/110. For driving alternators in parallel an extra heavy flywheel is recommended limiting the cyclic variation to 1/250.

Cooling Equipment.

Water tanks and radiators listed herein are suitable for

average conditions.

For long runs larger or additional equipment is supplied as

For tropical or sub-tropical climates extra tanks, larger radiators or alternative cooling systems are required. Quotations on application.

Exhaust Equipment.

An exhaust silencer attached to the Engine is supplied as standard equipment.

Water cooled exhaust silencer can be supplied for the Semi-Diesel and Diesel Engines, at an extra charge,

Additional silencers for extra quiet running can be supplied as extra equipment.

Air Filters.

For working in dusty atmospheres, as in a quarry or when driving a concrete mixer. Engines can be fitted with air filters as follows :-

#### PRICES.

Engine.	B.H.P.	Price.	Code Word.
		£ s. d.	
Air-Cooled	2 & 4	15 0	Filux
"M"	11 & 2	15 0	Fillo
"M"	3 & 4	15 0	Fildy
" M "	5 & 6	16 6	Filon
Semi-Diesel	6	1 3 6	Fipro
Semi-Diesel	10	180	Fiban
Diesel	5 & 6 7	Price on	Ficol
Diesel	8 & 10 Sa	application.	Finam

Waterproof Sheets.

For Engines working under exposed conditions waterproof sheets are recommended and can be supplied.

#### PRICES.

Engine.	B.H.P.	Price.	Code Word.
"M"	11 & 2	£ s. d.	Odrie
"M"	3 to 6	1 2 0	Lamon

Prices of waterproof sheets for other Engines on application.



## **TESTIMONIALS**

The following is a selection from the thousands of testimonials which we have received from users of Petters Oil Engines in all parts of the world.

#### SMALL DIESEL ENGINES.

In East Africa.

No. 7385.

The Engine supplied about eighteen months ago is giving entire satisfaction. This Engine is most economical in fuel consumption.

Installed in a Gravel Pit.

No. 7339.

I must say how pleased I am with the Engine. It has given excellent service.

In a Cinema.

No. 7221.

This is by far the best Engine of its kind I have yet seen. It is simply marvellous.

For Generating Electricity on a Launch.

No. 7269.

We have had the best possible results from these two little Engines working under most unusual conditions.

#### SEMI-DIESEL ENGINES.

For Pumping.

No. 7263.

The Engine has been working very satisfactorily. It worked for 24 hours without stoppage continuously for nearly a month and no trouble was experienced.

In a Workshop.

No. 7290.

I have a Petter Engine which has been in use almost continuously every day for two years. It is often started up and left running for hours on end without any attention and has never given the slightest trouble.

## **TESTIMONIALS**



In a Country House.

No. 7376.

I am more than satisfied with the Engine which has rendered faithful service ever since it was installed (10 years ago).

#### PARAFFIN AND PETROL ENGINES.

16 Years' Hard Work on Farm.

No. 7378.

We have had this Engine for nearly sixteen years and it has had some very hard work. It goes like new.

Driving a Dynamo.

No. 7370.

My Petter Engine has been driving a dynamo for ten years. When it eventually dies of old age I shall certainly replace it with another Petter.

In a Workshop.

No. 7375.

About 9 years ago I purchased this little Engine. It has never given a minute's trouble and to-day is as good as ever.

In a Country House.

No. 7301.

The Engine has given entire satisfaction and has been running for seven hours each evening on a direct lighting plant.

#### AIR COOLED PETROL ENGINE.

For Electric Lighting.

No. 7343.

Results have been so excellent that I feel it incumbent on me to express my appreciation.



## SHELL "V.P." PETTER OIL

Correct lubrication is a matter of vital importance to every internal combustion Engine user.

Shell "V.P." Petter Lubricating Oil is the result of extensive tests under working conditions and is highly suitable for internal combustion Engines generally.

#### PRICES (per gallon including tax).

	STATE OF THE STATE
3/4	GINOG
4/1	GIFUN
4/2	GILDA
4/4	GISTO
4/7	GIVAT
4/11	GIMIL
4/10	GIDAX
5/1	GIBER
5/7	GIRON
	4/1 4/2 4/4 4/7 4/11 4/10 5/1

For the air cooled petrol Engines described on pages 21—23, use Shell A.C. Petter Oil. For prices add 3d. per gallon to prices given above.

## **GUARANTEE**

Every part of each Engine passes through a rigid system of inspection before being used. Should any part prove defective through bad material or workmanship, within twelve months after despatch from our Works, we expressly guarantee, in lieu of any warranty implied by law, to repair or supply new such part, free of charge, provided it is sent for inspection to our Works. In no circumstances do we accept liability for consequential damages. Prices include delivery to nearest railway goods station in the United Kingdom and are subject to change without prior notice.

## ATOMIC DIESEL ENGINES



Illustration shows 15 B.H.P. Atomic Diesel Engine.

In addition to the Engines described and illustrated in the foregoing pages, Atomic Diesel Stationary Engines are manufactured from 15 B.H.P. to 540 B.H.P. They are of the vertical, solid injection, cold-starting design.

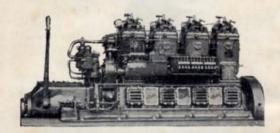
These Engines are noted for their smooth running, low fuel consumption and low maintenance cost. They have wide acceptance and are producing power in mines, factories, quarries, etc., all over the world.

Particulars on application.

Page Thirty-five



## ATOMIC DIESEL MARINE ENGINES



#### MARINE PROPULSION

The Diesel Engine has established its reputation as a reliable and efficient propulsion unit for all classes of vessels. Petters Limited offer a range of Atomic Diesel Marine Engines from 27 to 450 B.H.P. suitable for motor coasters, yachts, barges, fishing vessels, trading craft, etc. The illustration shows an 85 B.H.P. Petter Atomic Diesel Engine with monobloc crankcase, providing a rigid construction and minimum overall length without sacrifice of accessibility.

#### MARINE AUXILIARIES

For auxiliary power Diesel Electric Generating Sets are available in a wide range of sizes, and in addition the Engines can be supplied for driving pumps, air compressors and refrigerating machines. Powers up to 540 B.H.P.



\*

## WESTLAND

Petters Limited are also designers and manufacturers of the famous Westland Aircraft for Civil and Military purposes, and will be pleased to send particulars to interested enquirers.

On April 3rd, 1933, two Westland aeroplanes fitted with Bristol Pegasus SIII Engines crowned a long record of outstanding achievement, and established a world record by their flight over Mount Everest.

The two types at present in production are:—

CIVIL AIRCRAFT. The Wessex six or eight seater passenger machine for medium range air lines, private charter and initial or ferry air services.

MILITARY AIRCRAFT. The Westland Wallace General Purpose Aircraft for reconnaissance, day-bombing, fighting, long range desert patrol, advanced training and army co-operation.

## TYPES OF OIL ENGINES

manufactured by

## PETTERS LIMITED

INDUSTRIAL DIESELS.
SMALL DIESEL ENGINES.
HIGH SPEED DIESELS.
MARINE DIESELS.
SEMI-DIESEL ENGINES.
PARAFFIN & PETROL ENGINES.
PETROL ENGINES.

15 to 540 B.H.P.

WESTLAND WORKS YEOVIL, ENGLAND

London Office :-

75b. Queen Victoria Street, E.C.4.

Sales Representatives and Agents in all parts of the World.

# PETTER

DIESEL SEMI-DIESEL

OIL ENGINES 1/2 TO 10 B.H.P.

Sold by

PETROL-PETROL-PARAFFIN

Reliable

Simple

Economical

Durable