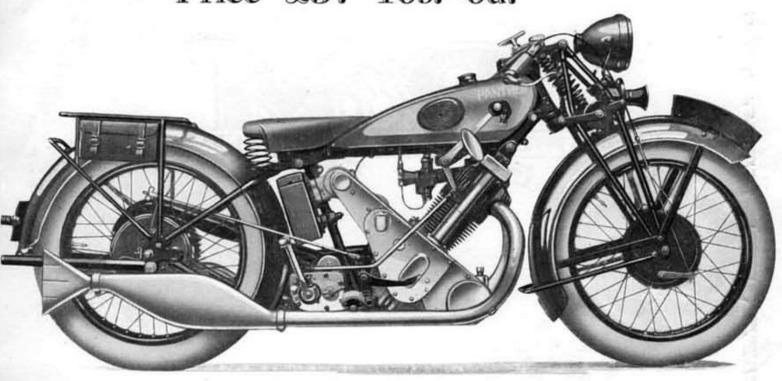


1, 1930

1000 ELS

### O.H.V. Panther Model 50. Price £57 10s. 0d.



#### SPECIFICATION.

ENGINE. 498 c.c. 84 × 90 mm. Compression 5.4. 598 c.c. 87 × 100 mm. Compression 6.

Interchangeable overhead valves with double springs and split cone cotters, operated by one-piece silver steel push rods. Bronze rocker box in which bearings for the rocker shafts are formed contains oil impregnated felt pad for lubrication. Push rods and tappets enclosed in a telescopic tube. Aluminium piston with two compression rings and one scraper ring, \(\frac{1}{8}\) in. wide, \(\frac{3}{4}\) in. hollow gudgeon pin clamped in connecting rod (non floating). Double row roller big end, single row roller main shafts. Additional ball bearings in timing case cover for main shaft and cam shaft.

LUBRICATION. 3½ pints of oil carried in sump cast with crank-case. Rotary double plunger pump, positive in action without any form of valves or springs is housed in the intermediary timing wheel. Oil drawn through quick-detachable wire gauze filter and delivered to piston at base of cylinder. All oilways internal, Indicator and regulator visible and controllable whilst riding. Filling orifice on timing case. Marked dipper rod in sump to denote oil level. Surplus oil is collected from the flywheels and returned from the crank case to the sump.

FRAME. All straight tubes. Front down frame member formed by four steel rods passing through the engine. Bottom bracket casting forms platform for gear box. Side car lugs incorporated in frame.

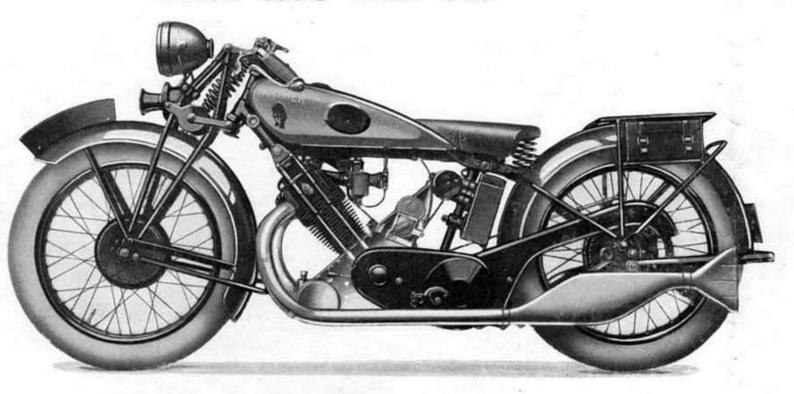
GEAR BOX. Special P. & M. Sturmey Archer three speed gear box and clutch. Ratios 4.5, 6.6 and 13.3 to 1. P. & M. 4 speed can be fitted. (See extras).

## PHELON & MOORE, Ltd., 77, Mortimer St.,

Telephone: MUSEUM 0647.

Telegrams: "PHEL.MOR,

## O.H.V. Panther Model 60. Price £58 10s. 0d.



#### SPECIFICATION - continued.

MAGNETO. B.T.H. gear driven through universal fibre coupling and fixed on top of crank case.

DYNAMO DRIVE. Double sprocket formed on magneto drive shaft, the universal coupling eliminating all strain on the magneto bearings.

DECOMPRESSOR. Ensures easy starting by bringing an additional cam into action which reduces the compression by about half.

CARBURETTER. Amal Sports two lever with flanged air-tight fixing. Twist grip throttle.

SADDLE. Lycett's Aero. Height from ground 26 ins.

CHAINS. Coventry. Front 1 in. x 305. Back 5 in. x 1 in.

FRONT FORK. Special P. & M. Brampton with shock absorbers.

HUBS. Front taper roller. Back Journal ball bearings.

**TYRES.**  $26 \times 3.25$ . Weight 498 c.c. 298 lbs. 598 c.c. 305 lbs.

TANK. Saddle type recessed at back for nose of saddle. Holds 2½ gallons.

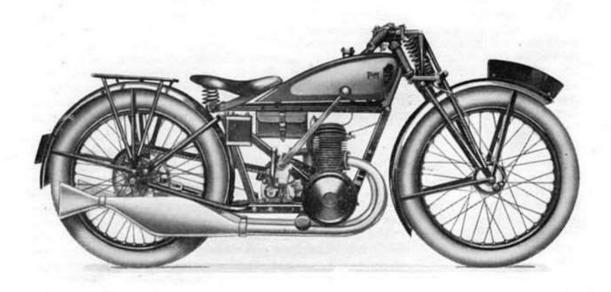
EQUIPMENT. Detachable carrier. Lifting loop. Steering damper. Knee grips. Front and back stands.

Adjustable footrests and handlebars. Dynamo drive sprocket. Grease gun lubrication. Number plates. Tyre pump. Two toolbags. Tool kit.

Petrol consumption 90 m.p.g. Oil 1,000 m.p.g.

## London, W. 1. Works: Cleckheaton, Yorks. wesdo, London."

## Panther Villiers Model 20. Price £29 17s. 6d.



Deposit 27 10s. 0d.

Monthly Payment £2 1s. 5d.

Insurance £3 10s. 0d.

Weight 165-lbs.

Tax 30/-

The Specification of this Model differs only in details from the 247c.c. Model as follows: Frame and Forks of smaller dimensions but similar design.

ENGINE. 196c.c. 2-port with cast iron piston and non detachable head.

LUBRICATION. Petroil system. Castrol oil caddy neatly fitted under petrol tank.

SADDLE. Lycett Pan seat.

WEIGHT. 165-lbs. with direct lighting

CHAINS. 12-in, × . 205.

#### 147c.c. Model 15.

Specification as Model 20. with following alterations:

ENGINE. 147c.c.

GEAR BOX. 2-speed (Albion).

TYRES.  $25 \times 2\frac{1}{2}$ -ins.

BRAKES. Front 31-ins. Back 6-ins. Finger adjustment to both.

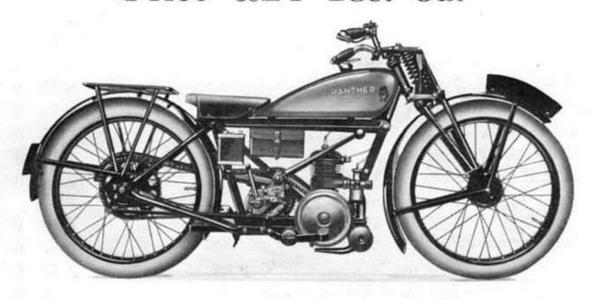
WEIGHT. 150-lbs. with direct lighting.

## PHELON & MOORE, Ltd., 77, Mortimer St., L

Telephone: MUSEUM 0647.

Telegrams: "PHELMOR, W

## Panther Villiers Model 15. Price £24 18s. 6d.



#### THE 147c.c. PANTHER.

This machine is a small edition of the 250 c.c. It is a utility motor cycle which, in spite of its low price is perfectly built and finished. It is light enough to be carried up a few steps, a handle being provided for this purpose. It is not a miniature but accommodates an average adult in comfort, the same size wheels as the larger models being used. Although fitted with a two-speed gear, the power and flexibility of the engine are such as enable it to be ridden practically anywhere.

#### PRICES ALL MODELS.

		H HALL CHILL	4 10 10 10	4. 4.1		Mand Stand	~				
Model No.	Code Word	Engine Capacity	Cash Price			E. P. PRICE Deposit Monthly					
15	Babpanth	147 c.c.	£24	18	6	£6	4	8	£1	15	4
20	Twenpanth	196 c.c.	£29	17	6	£7	10	0	£2	1	5
25	Villpanth	247 c.c.	€37	10	0	£9	7	6	22	11	10
50	Panther	498 c.c.	£57	10	0	£14	7	6	£3	17	8
60	Cubranth	598 c.c.	£58	10	0	£14	12	6	£3	19	0
80	Redwing (H.C. Engine)	598 c.c.	£62	10	0	£15	12	6	£4	4	4
85 (S)	Redpanth pec, H.C. Engin	598 c.c	£66	0	0	£16	10	0	£4	9	1
90	Panthette	246 c.c.	£60	0	0	£15	0	0	£4	0	7
	NOTE-Mode	ls 80 and 85 h	ave Plat	ed Ta	ink i	inless	othe	rwise	order	ed.	

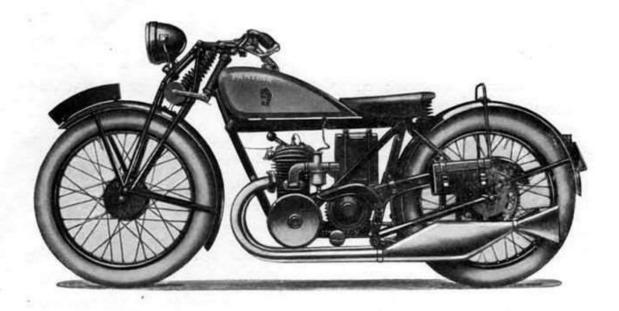
All P.&M. Machines are sold under the conditions of the

limited guarantee published in this list.

We reserve the right to modify or deviate from the above specifications and prices without notice. Prices charged will be those current at time of delivery.

ondon, W. 1. Works: Cleckheaton, Yorks.

# Panther Villiers Model 25. Price £37 10s. 0d.



Deposit £9 7s. 6d. Monthly Payment £2 11s. 10d. Insurance £3 10s. 0d. Weight 196 lbs. Tax 30/- per annum.

The 250 c.c. Panther is a light, speedy, and economical machine. Entirely reliable, a high average speed can be maintained over long distances, but it steers so perfectly and is so controllable, that it can be ridden in traffic or grease with ease and confidence. The construction of this machine is so simple that it can be maintained in good order with a minimum of mechanical knowledge, but it will stand up to the hardest competition work or long distance touring with pillion passenger.

Petrol consumption 100 miles per gallon. Maximum speed 60 miles per hour.

FRAME. The main frame member, running from the handle bars to the saddle is a steel drop forging. Bolted to this member is a duplex steel jointless cradle, in which the engine and gear-box are housed. This unique construction eliminates all lugs and brazed joints, and although light is of immense strength. ENGINE. Villiers 247 c.c. two stroke super sports with quickly detachable aluminium combustion head. Bore 67 m/m. Stroke 70 m/m. Twin exhaust ports. Full roller bearing big end. Aluminium alloy piston with fully floating gudgeon pin. Extra long bronze gas tight main bearings. CARBURETTER. Villiers special carburetter with hand control for variable jet adjustment. IGNITION. Villiers (flywheel) magneto. GEAR BOX. Sturmey Archer three speed with Ferodo inset clutch operated from handle bar. The box is rigidly bolted to the frame cradle. Bottom fixing. Ratios 5\frac{1}{2}, 8\frac{1}{2}, 16 to 1. **FORKS.** Special Brampton forks fitted with shock absorbers. **SILENCERS** The twin exhaust ports lead into two large size pipes to which are fitted full size Panther silencers of large capacity with fish tails suitably baffled to ensure silence without overheating. All parts detachable for ease of cleaning. TANK. Holds 2 gallons of petrol and 3 pints of oil. Fitted with sight feed and hand adjustment. Enamelled dark green with light green panels. LUBRICATION. Entirely automatic, the oil being forced from the tank through the sight feed by pressure from the crank case, Grease gun lubrication to all the bicycle parts. WHEELS. Wired on rims, 25×3 ins. Dunlop cord balloon tyres. **TRANSMISSION.** ½-in.×'205 chains with single metal guard. **BRAKES.** Internal expanding 5-in. front and back. Rear brake pedal mounted independently of footrest tube. **P. & M.** instantaneous hand adjustment to both brakes. **STAND. P. & M.** Central spring-up stand, raised or lowered without handling. **FOOTRESTS.** Rubber pads set in a convenient position for correct weight distribution and comfort. HANDLE BARS. Fully adjustable for height and angle. SADDLE. Lycetts Aero. TOOL BAG & ACCESSORIES Stout metal covered leather tool bag complete with tool roll and tools. Tyre initiator number plates.

## The following Extras can be fitted to the various Models.

				£	5.	d.		
Miller S.U.S. Dyno lighting, all O.H.V. models								
., Electric Horn	,,	,,	•••		10	0		
Bosch " " " "	•••	•		1	5	0		
Lucas Magdyno lighting "		**	•••	6	10	0		
P. & H. Acetylene " "	0.00		from	1	10	0		
Smith Speedometer in Tank (Gear Box drive on 3-speed mo	dels onl	(y)	from	2	0	0		
Jaeger front wheel drive Speedom	eter all	models		2	7	6		
,, ,, ,, ,,	Trij	model		2	12	6		
P. & M. 4-speed gear, all O.H.V. models only								
Aluminium front chain case, all	O.H.V.	models on		2	15	0		
Leg shields ,,	,,	., .,		1	0	0		
Licence holder (all Models)		1000	***		1	3		
Insurance, all O.H.V. models only	•••	***	from	5	10	0		

#### ELECTRIC LIGHTING all Villiers Models.

										£	S.	d.
inch he	ead la	mp a	nd i	rear la	mţ	without:	accum	ulat	or	1	10	0
0.64	••	••	••	**	,,	with	••			3	17	6
		••	••		,,	without	**			2	0	0
••	••	••	••		••	with	.,			4	6	6
b Hori	1					•••	• • • •	all	models		8	6
ther M	lascot	•••		0.000		***		**	**		7	6
miniun	n No.	Plate	s			•••	•••	••	••		10	0
omium	Plate	ed Ha	ind	lebars					••		10	0
ist Gri	p Con	trol					Vil	lier	s models		7	6
g Shield	ds						,	,	,,		10	0
ted Ta	nk			•••	2	all models	(exce	pt a	80 & 85)		10	0
urance						•••	Vil	lier	s models	3	10	0
ease G	un			•••		for	147 c.	c. r	nodel 15		2	6
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NOTE.—Redwing Models have high compression engines, special camshaft, valves, etc., and designed for maximum speed. Plated tank standard.

All machines are fitted with solo gear ratios unless otherwise specified.

#### GUARANTEE.

E give the following guarantee with our bicycles, motor cycles, motor cycle combinations and sidecars, which is given in place of any implied conditions, warranties or liabilities whatsoever, statutory or otherwise, all such implied conditions, warranties and liabilities being in all cases excluded. Any statement, description, condition or representation contained in any catalogue, advertisement, leastet or other publication shall not be construed as enlarging, varying or overriding this guarantee. In the case of machines which have been used for "hiring out" purposes, or from which the trade mark name or manufacturing number has been removed, no guarantee of any kind is given or is to be implied.

We guarantee subject to the conditions mentioned below, that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship, but this guarantee is to extend and be in force for six months only from the date of purchase, and damages for which we make ourselves responsible under this guarantee are limited to the free supply of a new part in exchange for the part of the bicycle, motor cycle, motor cycle combination or sidecar which may have proved defective. We do not undertake to replace or refix or bear the cost of replacing or refixing, such new part in the bicycle, motor cycle, motor cycle combination or sidecar. We undertake, subject to the conditions mentioned below, to make good at any time within six months any defects in these respects. As bicycles, motors cycles, motor cycle combinations and sidecars are easily liable to derangement by neglect or misuse this guarantee does not apply to defects caused by wear and tear, misuse or neglect.

The term "misuse" shall include amongst others the following acts:-

- The attaching of a sidecar to the motor cycle in such a manner as to cause damage or calculated to render the latter unsafe when ridden.
- The use of a bicycle, motor cycle or of a motor cycle and sidecar combined, when carrying more persons or a greater weight than that for which the machine was designed by the manufacturers.
- The attaching of a sidecar to a motor cycle by any form of attachment not provided or supplied by the manufacturers or to a motor cycle which is not designed for such use.

Any bicycle, motor cycle or motor cycle combination or sidecar sent to us to be plated, enamelled or repaired will be repaired upon the following conditions, i.e., we guarantee that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship, such guarantee to extend and be in force for three months only from the time such work shall have been executed or until the expiration of the six months referred to, and this guarantee is in lieu and in exclusion of any common law or statute warranty or condition, and the damages recoverable are limited to the cost of any further work which may be necessary to amend and make good the work found to be defective.

#### CONDITIONS OF GUARANTEE.

If a defective part should be found in our bicycles, motor cycles, motor cycle combinations or sidecars, or in any part supplied by way of exchange before referred to, it must be sent to us CARRIAGE PAID, and accompanied by an intimation from the owner that he desires to have it repaired or exchanged free of charge under our guarantee, and he must also furnish us at the same time with the number of the machine, the date of the purchase, or the date when the alleged defective part was exchanged as the case may be.

Failing compliance with the above, such articles will lie here AT THE RISK OF THE OWNER, and this guarantee and any implied guarantee, warranty or condition shall not be entorcible.

We do not guarantee specialities such as tyres, saddles, chains, lamps, etc., or any component parts supplied to the order of the purchaser differing from standard specifications supplied with our bicycles, motor cycles, motor cycle combinations, sidecars or otherwise.

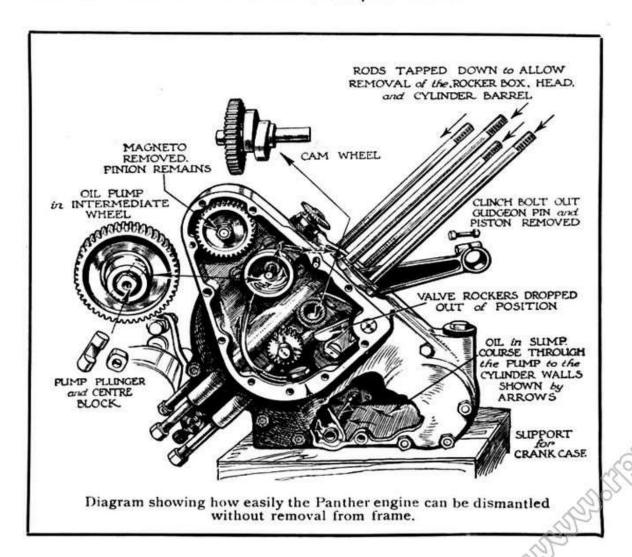
#### A WORD ON THE PANTHER.

Panthers are known as perfected Motor Cycles because they possess all the attributes which are expected in a high-class modern machine; complete reliability, high speed, and the perfection of workmanship and finish.

They possess, moreover, an elegance and individuality all their own, due to everything being built into the design, and not added from time to time as in the case with other machines aspiring to the same class.

P. & M. resources and experience enable you to purchase these superb mounts, at prices which are competitive with machines whose sole merit is that they have copied some of the P. & M. features.

We invite you to join the rapidly increasing ranks of Panther riders and share the typical experience of one of our customers, who writes "I did not know the full joy of motor cycling until I bought a Panther. There is no machine to compare with it."



### What the Riders Say.

Tunbridge Wells. Dear Sirs, Nov. 13th, 1928. With reference to the Panther Villiers Frame No. 363 L.H. I should like you to know how pleased I am with the performance of this machine in trials especially with regard to the steering and road holding which is nothing short of G. F. G. Liverpool, Dear Sirs, 11th February, 1929. I am writing you in respect of my 600 c.c. Panther which you delivered to me on January 23rd. Having covered 800 miles I have had an opportunity of forming my opinion of the performance. The all out speed I have not yet ascertained but the acceleration promises to be very good, and mudguarding is excellent, as is the lighting set. The engine is astoundingly smooth for a big single, the transmission is up to the same standard, the brakes have now bedded down and are smooth and really effective. Compared with my 1926 Panther the new model is a vast improvement in almost every direction. One thing however it does retain-it still has the Panther fascination-still the same peculiar charm.

I am more than pleased with the bus and congratulate you on your latest production.

Yours faithfully, B.L.H.

Fishguard, S. Wales.

Dec. 10th, 1928.

"I fetched machine from Oxford by road and did the 210 miles on two gallons of petrol, which is simply marvellous, for such a big engine (1929-600 c.c.) I hope she will always be the same.

H. L.

Leicester.

Gentlemen,
I own a 1926 499 c.c. O.H.V. Panther Cub Model. I find it an excellent machine, and further, I have had no trouble during the 24,000 miles. I have ridden in all weathers.

Nov. 21st. 1928.
I find it an excellent with the company of the

Portsmouth.

Dear Sirs,

Please allow me to express my great satisfaction with both the appearance and ability of my new "Panther Villiers" cycle.

I have had many admirers of it and it is the most comfortable cycle I have ridden in the lightweight class i.e. under 500 c c, machines.

N. T. W.

Edinburgh.

I am delighted with your machine and sincerely hope you will have every success with it. There is no doubt it is the smartest two-stroke on the market.

Yours truly, J. S. L.

Armley, Leeds.

Dear Sirs, May 2nd, 1928.

I recently purchased a 600 c.c. twin port combination.

I would like to offer my congratulations to you on the performance of the above machine. It is wonderful. "Power in plenty" "Very Silent" and the four speed box just the thing for sidecar work. The general finish leaves nothing to be desired.

Yours faithfully, W. P.

P.S. Your advert, in the "Motor Cycle" describes it perfectly. "A REAL BEAUTY".

Edinburgh.

May 13th, 1928.

treatment to me in this and other dealings which we have had.

Please believe me that I am sincere when I say that your service is on a par with the excellence of your products. There are not many firms I feel sure, who treat their clients in such a prompt and liberal manner. It is a pleasure to ride your bikes, and a joy to deal with you.

In conclusion, let me say, that I shall always recommend your products to anyone who wants a really superb motor cycle.'

D. G. B.