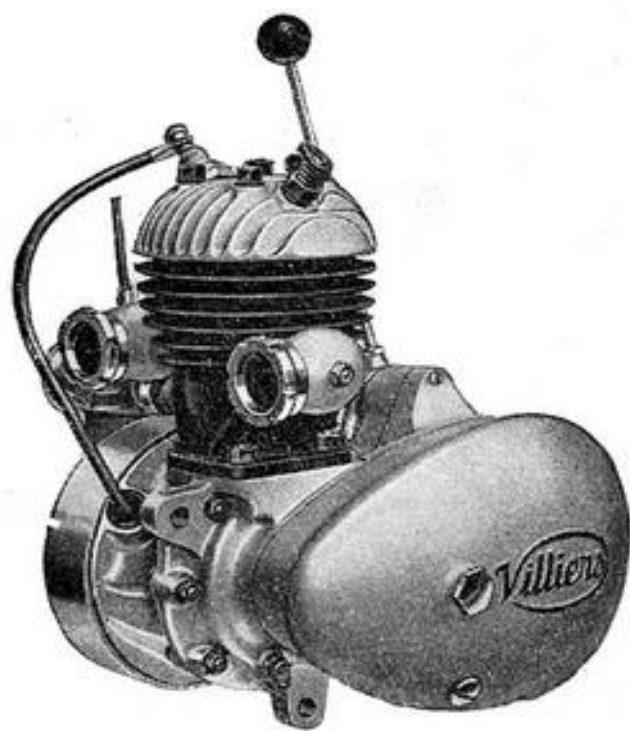


*The* **VILLIERS**  
**125 c.c.      MARK 9D**  
**ENGINE—GEAR UNIT**



Manufactured by  
**THE VILLIERS ENGINEERING Co., Ltd.,**  
**WOLVERHAMPTON, ENGLAND.**

Telephone No.  
21666 (3 lines).

Service Dept.  
20851.

Code: BENTLEYS

Telegrams: "VILLIERS,  
WOLVERHAMPTON."

APRIL 1/48.

**WALTERS**

**COPY OWNERS MANUAL/SPARES LIST  
TO SUIT**

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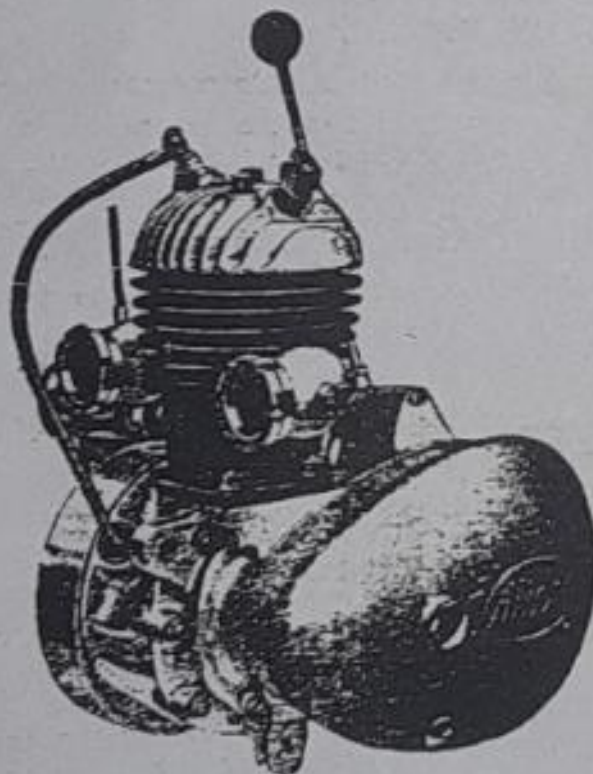
**9D**

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## Specification.

The VILLIERS 125 c.c. Unit is an extremely compact Engine in one assembly with a Three-speed Gearbox. The Engine is of the very latest Flat Top Piston design, Ball and Roller Bearings throughout, and the Gearbox of up-to-date construction is of the sliding dog type with a very smooth single-plate clutch. The primary chain is totally enclosed, and runs in an oil bath. The whole of the Unit is of "clean" design externally.

It is fitted with a VILLIERS Flywheel Magneto, fitted with a front cover which renders it dust-proof and water-tight. A VILLIERS Carburetter with a really efficient Air Intake filter is standardised on this Unit.



Lubrication of the Engine is by petrol, whilst separate accessible fillers are provided for the Gearbox and Primary Chain compartments.

### SIZE OF ENGINE:—

50 m/m Bore  $\times$  62 m/m Stroke = 122 c.c.



# RUNNING INSTRUCTIONS FOR VILLIERS 125 c.c. AND 98 c.c. UNITS

## BEFORE USE.

### TANK.

Fill up tank with a mixture of 1 part Castrol X.L. lubricating oil to 20 parts Petrol, the mixture to be made and well stirred before putting into tank.

### GEARBOX.

Remove the filler plug, which is situated on the magneto side of crankcase, midway between the cylinder and change speed control. It may not be necessary to insert oil in a new engine, but after 1,200 miles insert Castrol "D" Oil up to level plug in gear box cover.

### CHAINCASE.

Remove filler plug in side of case near bottom, and insert as much Castrol "D" Oil as will enter, the plug hole being so placed as to act as a level with machine standing vertically.

## STARTING.

### WHEN COLD.

Turn petrol tap to ON position. Open throttle lever (inwards) about one-third and close strangler where fitted, then flood the carburetter by depressing the tickler. If the back wheel is on the ground, place gear in neutral position, then give a sharp kick on starter pedal when the engine should start. Gradually open strangler to its fully open position, as engine warms. In very cold weather it may not be possible to do this immediately, in which case leave partly open until engine is warmed up.

### WHEN HOT.

Do not flood carburetter, and leave the strangler open.

## FAILURE TO START.

If repeated kicks meet with no success after flooding well, (when cold), open throttle fully and turn off petrol and resume kicking, when the engine probably go after several half-hearted starts. The throttle should then be closed and the petrol turned on again. If this fails, clean the sparking plug, and if plug is wet with petrol remove drain plug at bottom of crankcase. The engine should then be kicked round several times with drain plug and spark plug out, petrol turned off and throttle wide open; this will blow out any surplus petrol mixture.

Reference to Villiers general Engine Instruction Book should be made if engine still refuses to start.

## STOPPING THE ENGINE.

If the engine is stopped by turning off petrol tap instead of closing the throttle, an easier start will be made if the machine has to stand for a long time before re-starting.

## SPECIAL DETAILS.

General instructions regarding the engine, magneto and carburetter, etc., are given in the Villiers Handbook "How to get the Best Results from VILLIERS TWO STROKE ENGINES," but there are certain special features of the Unit models not covered by the Handbook.

### ENGINE.

The Gudgeon Pin is parallel and held in position by circlips which can be removed with a pair of thin-nosed pliers. The nuts holding cylinder to crankcase cannot be removed without lifting cylinder the last few threads. Forcing the nuts will result in stripped threads.

### GEARBOX.

The gear lever positions are as follows:—

Bottom gear	...	right back.
Neutral	...	next notch forward.
Middle gear	...	next notch forward.
Top gear	...	right forward.

The position of gear lever can be altered by releasing dome nut and as the centre is not keyed but fitted on a taper only, this will come off by giving a sharp tap on end of nut. When required position is obtained, lock up nut securely.

### CLUTCH.

Play between end of push rod in mainshaft and clutch operating lever is taken up by screwing in operating pin after slackening lock nut. Slackness in clutch cable is taken up by means of adjuster at the top and back of gear box.

### CHAIN ADJUSTMENT.

The cover of the oil bath chain case is removable for clutch and chain inspection by unscrewing the nut in centre of cover.

No chain adjustment is provided, as the chain runs in an oil bath and wear is negligible. If after long running the chain becomes too slack obtain a replacement from VILLIERS. This chain is endless and has no spring link to avoid any possibility of the chain coming off sprockets.

To fit new chain remove both engine and clutch sprockets. The engine sprocket has two tapped holes into which can be screwed set screws to act as an extractor with a plate across hexagon nut. The six springs must be removed, when the clutch sprocket will come away complete with ball race. The chain is then placed on the sprockets which are re-fitted together.

When replacing the cover take care to fit the gasket flat and intact.



## Running Instructions—contd.

### MAGNETO.

The flywheel should not be removed unless absolutely necessary, and then it is advisable to use a Villiers "Hammer Tight" spanner for the centre nut. The centre nut is right hand thread, and will unscrew a small distance and then tighten again as the flywheel is extracted. When replacing flywheel the correct timing, which is  $\frac{1}{8}$ " before T.D.C., is obtained by placing mark on flywheel rim opposite mark on armature plate (this will be found near the H.T. terminal) with the piston at dead top of stroke. After checking this lock up the centre nut.

Access to contact breaker points, etc., is obtained by removing the cover from front of magneto, this is held in place by three small screws, which must be tight when replaced.

Two connections are provided in the twin lighting cable a short distance from the magneto; unscrew these when removing engine from frame. Do not attempt to remove cable from inside of magneto; keep in position the rubber sleeves over the connections otherwise a short-circuit may occur.

On the early pattern 9D engines a 2-pole magneto was used, the lamp bulbs being as follows:—

Head lamp main bulb, 6 volt, .5 amp.

Parking bulb, 3.5 volt, .3 amp, screw in cap.

Tail lamp, 3.5 volt, .3 amp, screw in cap.

On later and current engines, the 6-pole pattern magnetos of different outputs are used. The types being known as 18 watt and 24 watt. The bulbs used being as follows:—

18 watt type. Head lamp bulb, 6 volt, 18/18 watt, twin filament.

Parking bulb, 3.5 volt, .15 amp, screw in cap.

Tail lamp bulb, 6 volt, 1 amp./3.5 volt, .3 amp, twin filament.

For the 24 watt type the bulb for the head lamp is a 6 volt, 24/24 watt, twin filament.

Other bulbs are the same as for the 18 watt magneto.

### CARBURETTER.

Three types of carburetters have been fitted to the Mark 9D engine:—**Number 1** being the Midget type having a single lever control and internal adjustment to the taper needle and having a plate type of strangler. **Number 2** is the Lightweight pattern having single lever control to throttle and external adjustment to taper needle for starting purposes. **Number 3** is also the Lightweight pattern, but having internal adjustment for the taper needle and a separate strangler.

Running instructions for each of the above types are given in the following pages.

## INSTRUCTIONS FOR USING VILLIERS MIDGET CARBURETTER (Number 1)

### TO START.

Close strangler, press tickler until petrol appears. Open throttle about one-third and engine should start easily. Gradually open strangler as engine warms up until fully open. If correctly set, engine should give good two-stroking in the tick-over position and take full throttle without hesitation when warm.

### GENERAL RUNNING.

If four-stroking occurs, throttle slide should be withdrawn and needle lowered 1/64" at a time by slacking off screw in side of throttle and then re-tighten. If firing back through the carburetter occurs, needle should be raised in the same manner.

Filter should be cleaned periodically or petrol will not flow freely. On no account should it be left out as grit, etc., will get into the needle seating and cause flooding.

## INSTRUCTIONS FOR USING THE VILLIERS SINGLE LEVER CARBURETTER (Number 2) (With external control for needle).

### TO START.

Turn bar of needle adjusting rod to the left (anti-clockwise looking at top of carburetter) as far as it will go. Press tickler until petrol appears (there is no need to let it drip), open throttle until about a quarter open, then start engine. After engine has warmed up, turn bar of needle adjusting rod to the right (clockwise) as far as it will go consistent with good running. Do not flood carburetter when restarting with engine still hot. If the right needle is fitted, the carburetter will give correct mixture at all throttle openings and all speeds of the engine, and needle adjusting rod should not require altering until again starting from cold.



## HINTS ON TUNING.

It will be seen that by means of various tapered needles, the carburetter can be perfectly tuned to suit any engine, and the simplest way to do this is as follows:—First get the most satisfactory position of needle for slow running on the road by means of the needle rod bar at top of carburetter (after engine has warmed up). If necessary, unscrew bar and screw into another hole, then see if you can open up fairly quickly. If engine dies out, showing mixture is too weak at full openings, fit a needle with more taper. If you can open up very quickly and the engine is inclined to hunt, showing mixture is too rich at full openings, fit a needle with less taper. If when running at full speed you close throttle to a smaller opening engine starts hunting or cuts out for a while it shows mixture is too rich. The best needle for speed is the best for hill-climbing, economy, etc. In other words, the correct needle is the best for everything. The amount of taper of needle is marked on the side as follows:—2, 2½, 3, 3½, 4, 4½, 5, 6, 7, and 8.

It is absolutely necessary that when needle rod bar is on full weak position, the mixture is too weak to run and bar must be turned somewhat towards rich in order to get a correct mixture. If necessary unscrew bar and screw into another hole until this effect is obtained.

It is very necessary that the compensating tubes are clear, and on no account should screws be used instead.

## TO CHANGE THE NEEDLE.

First unscrew the knurled ring on the top of the throttle barrel and pull out the throttle assembly. Then undo the slotted screw in the centre of the recess at the bottom of the throttle, the tapered needle with spring being taken out at the same time. If it is necessary to remove the damper spring, screw down the needle rod as far as it will go, when it will be found that the damper spring will project through the hole left open by the slotted screw. It can then be easily gripped with the fingers and pulled clear of the throttle.

When re-assembling, care should be taken not to twist the damper spring by the end of the two tongues of the needle rod as by this means the damper might easily be distorted or fractured.

When replacing the needle, first of all place spring on the needle, taking care coil of spring is at top of needle, that is, underneath the head. Then fit slotted screw over the needle and insert in throttle screwing up the slotted screw until tight.

## TO REMOVE FUEL NEEDLE.

Remove the float chamber and float and unscrew the compensating tubes from the centrepiece. This permits the centrepiece to be withdrawn from the carburetter, having of course, first of all removed the throttle. The small brass lever interposed between the needle and the float can then be swung round and the fuel needle lifted out. In no circumstances must the screw attaching the lever to the carburetter body be removed. This lever should always have ¼ in. movement on the screw.



### TO ASSEMBLE.

First see that every part is clean. Push centre piece through the hole in the body with the prongs of the brass lever on the outside of centrepiece, screw compensating tubes in gently, place large fibre washer in position on underside of body.

Place float in position on centrepiece, replace float cup, then small fibre washer and bottom nut, but do not use too much force when tightening.

## **INSTRUCTIONS FOR USING VILLIERS SINGLE LEVER CARBURETTER (Number 3) (Fitted with internal needle adjustment and separate strangler).**

On some Mark 9D engines, the lightweight single lever carburetter is fitted and which has ~~no~~ external control to the position of the tapered needle. For starting purposes, a vane type strangler is interposed between the carburetter and air cleaner, but it is possible to adjust the position of the taper needle in relation to the throttle to suit individual engines.

The "Hints on Tuning" already given (Number 2) apply to this carburetter and if it is necessary to adjust the needle position proceed as follows:—

Unscrew the knurled ring on the top of the throttle barrel and pull out the throttle assembly. In the centre of the throttle at the top will be found a small screw having a slotted head. Screwing this in clockwise lowers the needle position and therefore weakens the mixture. Unscrewing anti-clockwise raises the needle and richens the mixture. This adjustment is carried out at the Works on each individual engine during its test, but after the running-in period, it will probably be found necessary to slightly weaken the mixture.

### TO START.

Close the strangler by means of the spring loaded hand lever. The position of the strangler can be verified by the position of the slot in the end of the strangler spindle. When the slot is horizontal, the strangler is open and when vertical is shut. Press tickler until petrol appears, open throttle about a quarter, start the engine and gradually open strangler. It will be found after the engine has run a short time, that the strangler can be fully opened and it will not be necessary to close the strangler except when again starting from cold.

# LIST OF REPLACEMENT PARTS.

All Prices are subject to alteration without notice.

Illustration Ref. No.	Part No.	DESCRIPTION.	LIST PRICE.		
			£	s.	d.
125/1	B3833	Cylinder Barrel, 125 c.c. ... ..	3	12	6
125/2	C5442	.. Head, 125 c.c. ... ..	1	7	6
125/3	E5317	.. .. Bolt ... ..			9
125/4	FG186	.. .. Washer ... ..			1
125/5	—	Release Valve complete ... ..		5	0
125/6	C7303/1	Piston, Standard Size ... ..	1	2	0
	D7519	.. .015" o/s ... ..	1	2	0
	D7520	.. .030" o/s ... ..	1	2	0
125/7	E1725	.. Ring, Standard Size ... ..		1	9
—	E4480	.. .. .015" o/s ... ..		1	9
—	E4582	.. .. .030" o/s ... ..		1	9
125/8	E3903	Gudgeon Pin ... ..		2	6
125/9	E4047	.. .. Circlip ... ..			3
125/10W	D5154	Connecting Rod, with Bush ... ..	1	3	0
125/11W	E5157	Crankpin, Standard Size ... ..		6	6
—	E6410	.. .001" o/s ends ... ..		6	6
211	E375/E1899	Crankpin Rollers, set, Steel and Bronze ... ..		4	0
125/13	D5156	Driving Shaft, R. Hand Half ... ..	1	3	0
125/14	D5155	.. .. L. Hand Half ... ..	1	3	0
125/15	LS/8	Crankshaft Journal Bearing ... ..			*
125/16	B3976	Crankcase Half, Mag. Side ... ..	2	10	0
125/17	B3977	.. .. Drive Side ... ..	2	10	0
125/18	E4007	Engine Drive Sprocket ... ..		6	6
125/19	E3931	.. .. Nut ... ..			6
	E5706	.. .. Washer ... ..			1
	E4873	.. .. Key ... ..			3
125/20	B3978	Chaincase, Inner Half ... ..	1	5	0
125/21	B3979	.. Outer .. ... ..		14	6
	E4218	Plug, Cylinder Head, R.V. Hole ... ..		1	0

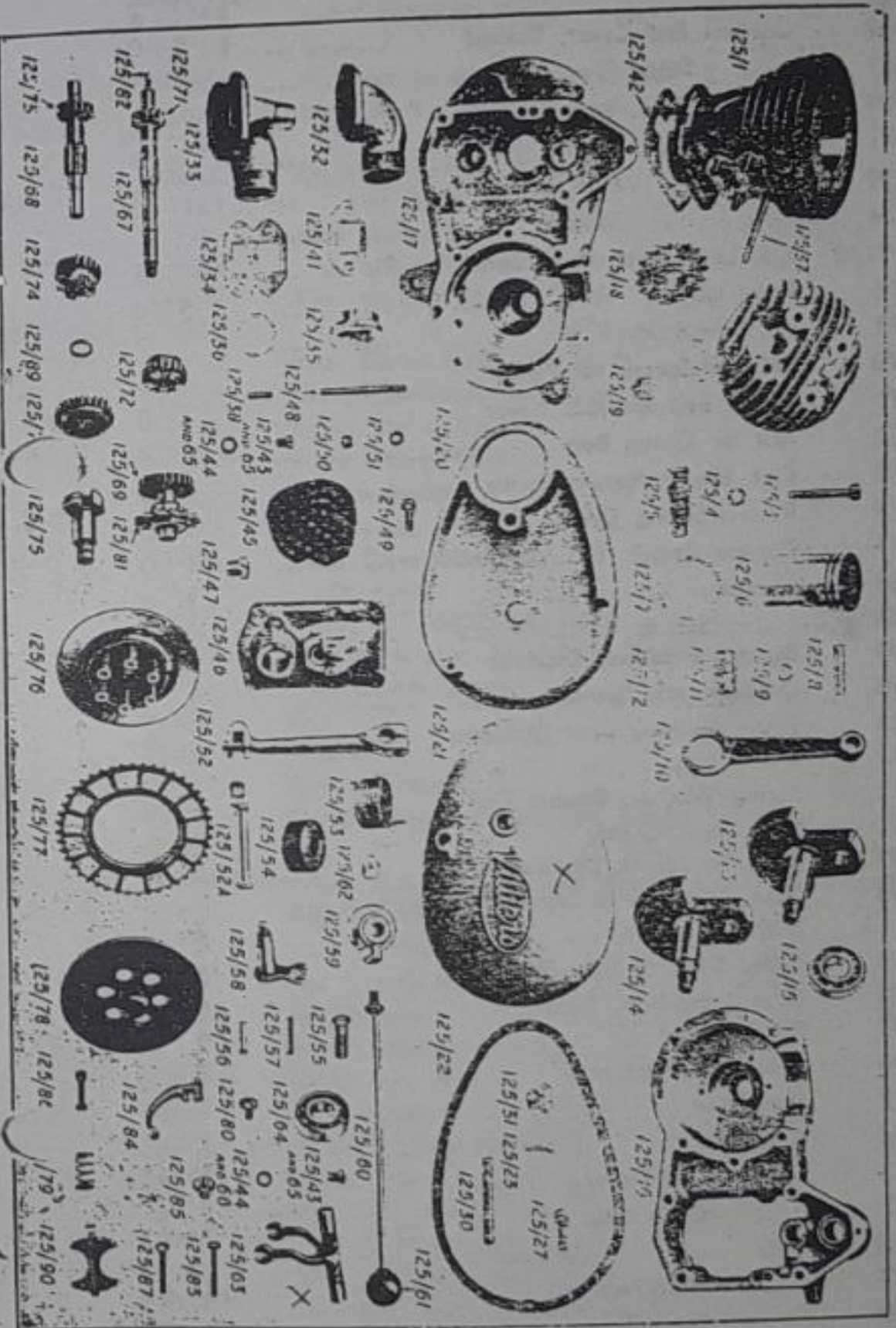
\* Manufacturer's Current Price.

Illustration Ref. No.	Part No.	DESCRIPTION.	LIST PRICE.		
			E	s.	d.
125/22	C4107-	Chaincase Joint Washer ... ..			6
125/23	1137X4	.. Screw ... ..			3
125/24	E4008	Crankcase Stud ... ..			3
125/25	E401	.. .. Nut ... ..			2
125/26	E2924	.. .. Washer ... ..			1
125/27	E4160	Cylinder Stud ... ..			3
125/28	E3961	.. .. Nut ... ..			2
125/29	E1050	.. .. Washer ... ..			1
125/30	E4093	Chain Cover Stud ... ..			7
125/31	E4097	Nut, Chain Cover Stud ... ..	1	6	
125/32	D4608	Exhaust Manifold ... ..	12	0	
125/41	E3948	.. .. Gasket ... ..			5
	E5198	Inlet Manifold (Norman), for Midget Type Carburetter ... ..	12	0	
	E4622	Inlet Manifold (Excelsior), for Midget Type Carburetter ... ..	12	0	
	D5342	Inlet Manifold, for Lightweight Carburetter, Swan Neck Pattern ... ..	12	0	
	D5418	Inlet Manifold, for Midget Type Carburetter, Swan Neck Pattern ... ..	12	0	
125/34	E3949	Gasket, Combined Inlet and Exhaust ...			6
125/35	E3934	Exhaust Pipe Nut ... ..	3	0	
125/36	E4453	.. .. Washer ... ..			3
125/37	E3908	Stud, Exhaust Manifold, long ... ..			5
125/38	E392	.. Exhaust and Inlet Manifold, short ...			3
125/39	E401	Nut for Stud ... ..			2
125/40	E2924	Washer for Stud ... ..			1
125/42	E3947	Cylinder Base Washer ... ..			5
125/43	E1962	Crankcase Drain Plug ... ..			3
125/44	E1905	.. .. Washer ... ..			1
125/45		Primary Drive Chain, 58 Pitches ...			•
	E4015	Bush, Driving Shaft, Mag. Side ... ..	2	9	
	E4104	Filler Plug, Chaincase ... ..			10
	E4602	Gland Bush ... ..	4	0	
	E4656	.. .. Spring ... ..	1	0	
	E4610	Bearing Sealing Washer ... ..			5
	E5420	Bearing Spacer ... ..	1	0	
	E4108	Felt Washer, Chaincase ... ..			5

• Manufacturer's Current Price.



# THE VILLIERS 125 C.C. ENGINE—GEAR UNIT.



## GEARBOX.

Illustration Ref. No.	Part No.	DESCRIPTION.	LIST PRICE.		
			E	s.	d.
125/46	C4058	Gearbox End Cover, Bushed ...	1	5	0
125/47	E5267	.. Filler Plug ...	1	3	
125/48	E4009	.. Stud, long ...			5
125/49	E4011	.. .. short ...			3
125/50	E2539	.. .. Nut ...			2
125/51	E2924	.. .. Washer ...			1
125/52	D4091/6	K.S. Lever with Pedal and Pivot Pin ...	17	6	
125/52A	E4096	Pedal only ...	5	0	
125/52B	E4098	.. Pivot Pin ...			7
125/52C	E4270	Bail and Spring for Pedal ...			2
125/52D	E4251	Clamp Bolt for K.S. Lever... ..			8
125/52E	E4252	Nut for Clamp Bolt ...			4
125/53	E4013	Kick Starter Return Spring ...	1	0	
125/54	E4014	Return Spring Cap ...	1	3	
125/55	E4084	Plunger Box ...	1	0	
125/56	E4085	Plunger ...	1	0	
125/57	E6864	.. Spring ...			2
	E6296	Ditto, for James, Excelsior ...			2
125/58	E6316	Quadrant and Spindle ...	7	6	
	E4103	Fibre Washer, Gear Quadrant ...			6
	E4135	Steel .. ..			5
	E4069	Spring Washer, Double Coil ...			6
125/59	D4070	Gear Lever Centre ...	5	6	
	D6291	Ditto, for James, Excelsior ...	5	6	
125/60	D3993	Gear Lever with Knob, Standard, Long, Straight Type ...	5	6	
	D4371	Ditto, Short Straight Type ...	5	6	
	D4271	Ditto, Long Bent Type ...	5	6	
	D4571	Ditto, Short .. ..	5	6	
125/61	E4100	Gear Lever Knob only' ...	1	0	
125/62	E4159	Dome Nut ...			9
125/63	D5255	Gear Selector ...	1	4	0
125/64	6204	Gearbox Ball Bearing ...			*
125/65	E1962	.. Drain Plug ...			3
125/66	E1905	.. .. Washer ...			1
125/67	D3987	.. Mainshaft ...	14	6	
125/68	C3988	.. Layshaft ...	12	0	
125/69	D3981	High Gear Pinion, 26 Teeth ...	1	3	0

\* Manufacturer's Current Price.



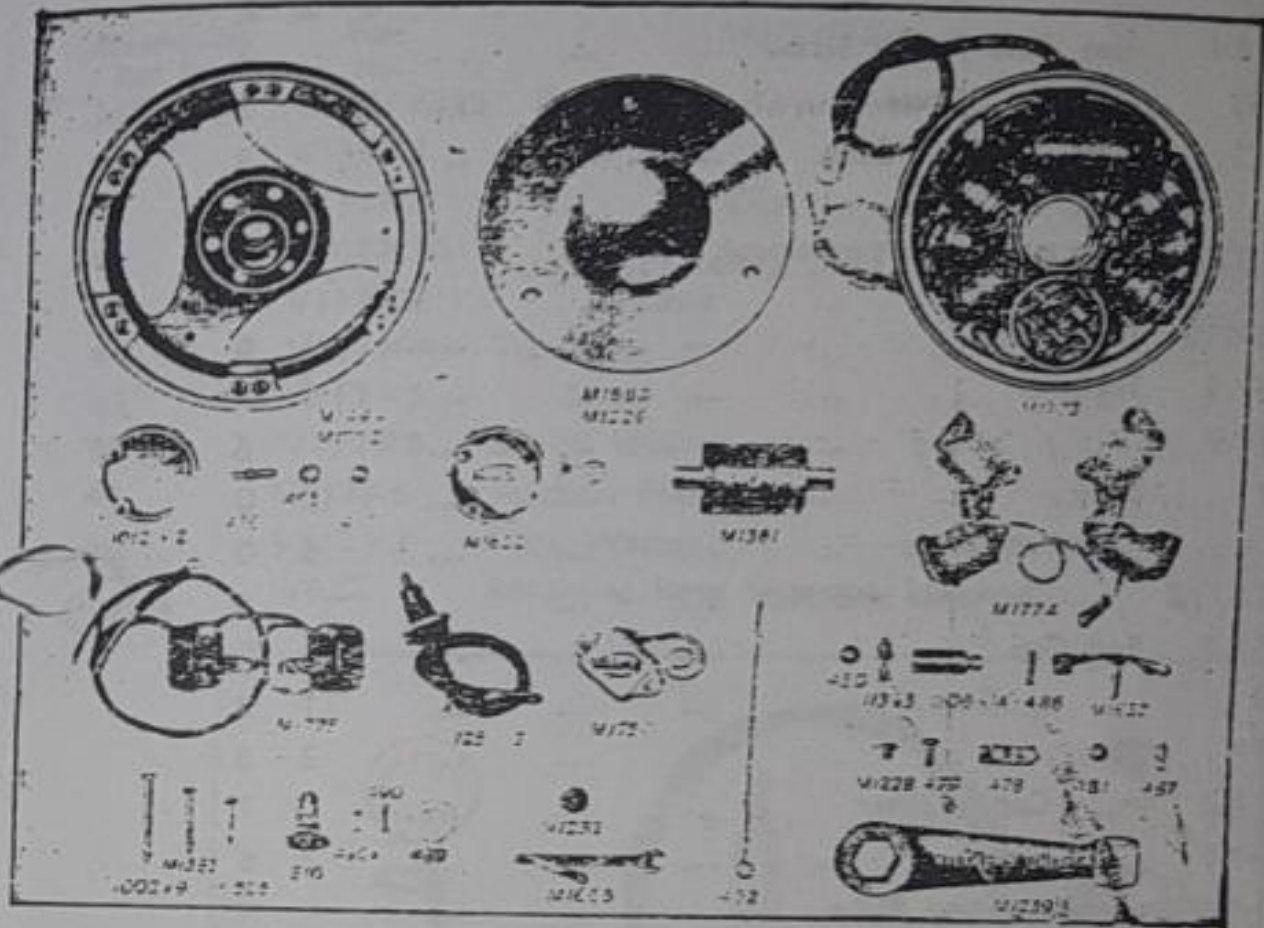
Illustration Ref. No.	Part No.	DESCRIPTION.	LIST PRICE.		
			£	s.	d.
	E5252	Felt Washer for Pinion ... ..			9
	E5254	Steel .. ..			2
125/70	D3984	Kick Starter Pinion, 27 Teeth ... ..	17		6
125/71	E7379	Main Shaft Pinion, 15 Teeth ... ..	5		6
125/72	D3986	.. .. Slider, 21 Teeth ... ..	12		0
125/73	E7335	Layshaft Pinion, 16 Teeth ... ..	5		6
125/74	E3985	.. .. Slider, 21 Teeth ... ..	11		0
125/75	D3990	Kick Starter Shaft ... ..	1	0	0
125/75A	E4913	.. .. Pawl ... ..		1	0
	E4908	Plunger, Kick Starter Pawl ... ..			4
125/75B	E4907	.. .. Spring ... ..			1
125/76	D6319	Back Clutch Plate with Studs ... ..	13		6
125/77	D6318	Clutch Sprockets with Inserts ... ..	14		6
7A	E4464	Corks, Set of 15 ... ..	1		3
125/78	D6320	Front Clutch Plate ... ..	5		0
125/79	E4466	Clutch Spring ... ..			4
125/80	E4208	Clutch Pin ... ..			7
125/81	E4154	Final Drive Sprocket, 12T Standard .305" dia. Roller ... ..	5		6
	E4781	Ditto, 12T .335" dia. Roller ... ..	5		6
	E4904	Spacing Washer, Final Drive Sprocket ... ..			3
	E4467	Nut, Clutch Centre ... ..			6
	E4873	Key .. ..			3
	E4915	Washer .. ..			2
125/81A	E4910	Sprocket Nut ... ..			9
125/82	E5187	Clutch Operating Push Rod, Long ... ..	1		0
	E5263	.. .. Short ... ..			5
125/83A	E4949/E401	Push Rod Adjuster and Nut ... ..			6
125/83	E4465	Push Rod End ... ..			9
	E6564	.. .. Felt Washer ... ..			4
	E5257	.. .. Steel .. ..			1
125/84	D4086	Clutch Lever ... ..	4		6
125/85	E4905/6	Barrel Adjuster and Nut ... ..	1		0
125/86	E4900/1	Cable .. ..	1		0
87	E4902/1	Clutch Lever Cotter and Nut ... ..			6
125/89	E5209	Thrust Washer, Mainshaft ... ..	1		0
125/90	E4128	Sliding Gear Operator ... ..	1		6
	E4110	Bush, Mainshaft, in End Cover ... ..	5		0
	E4075	.. Quadrant and Spindle ... ..	2		3
	E3996	.. Layshaft, Drive Side ... ..	5		0
	E3997	.. K.S. Shaft in End Cover ... ..	2		3
	E5550	.. K.S. Shaft, Internal ... ..	4		6
	E5253	.. Gear, Selector ... ..	2		3



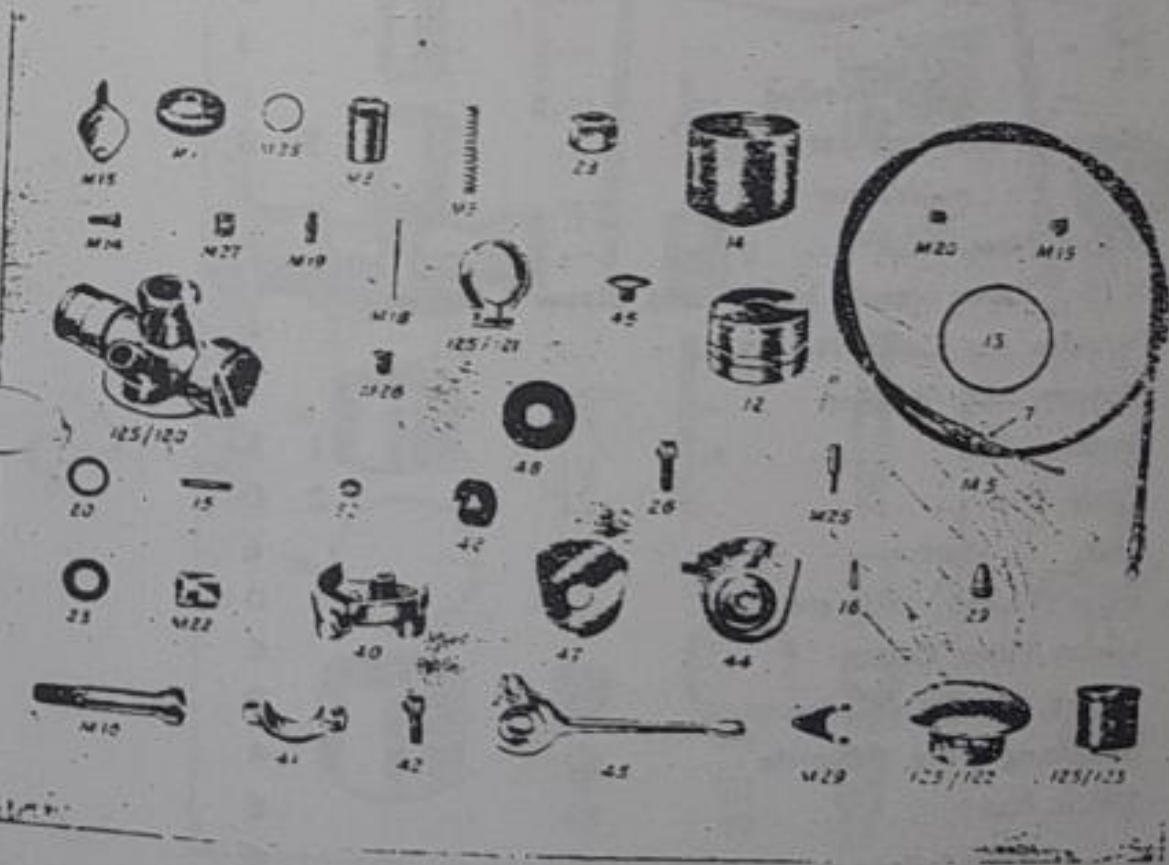
## MAGNETO. 6 Pole.

Illustration Ref. No.	Part No.	DESCRIPTION.	LIST PRICE.		
			E	s.	d.
	R101	Flywheel, 18 watt., complete ... ..	6	15	0
	R102	Less Cover and Screws, ditto, 24 watt. ...	6	15	0
	A101	Armature Plate, Complete Assembly with Lighting Coils ... ..	6	15	0
	M1361	Ignition Coil ... ..	1	10	0
	M1774	Lighting Coils, pair, Head... ..	1	5	0
	M1775	" " " Tail ... ..	10		0
	1106×14	Lighting Cable Connector and Rubber Sleeve			9
125/110	M1229	Flywheel Cover, Flat ... ..	3	6	
	M1580	" " " Domed ... ..	3	6	
	M1228	" " " Screw ... ..			3
	1012×2	Condenser Box only ... ..	4	6	
	M1622	" " " Complete Assembly ...	1	4	0
476	1053×1	" " " Stud ... ..			3
466	1002×15	" " " Nut ... ..			2
465	1002×13	" " " Washer ... ..			1
	M1776	" " " with Condenser and Studs... ..	10		0
125/112	M1750	Condenser only ... ..	4	9	
478	1022×7	Point Clamp ... ..	1	6	
479	1013×3	" " " Screw and Washer ... ..			3
480	1013×13	" " " Top Bush ... ..			5
481	1013×12	" " " Bottom Bush ... ..			5
487	1035×11/1004×5	Screwed Point with Locknut ... ..	2	0	
	M1632	Rocker Arm with Point and Pad ... ..	4	0	
486	1047×3	" " " Spring ... ..			2
125/107	1113×3	Lighting Terminal Screw with Nuts and Washers ... ..			9
	482	Low Tension Lead with Sleeve ... ..			6
125/113		High Tension Lead complete ... ..	4	0	
810	1124×8	" " " Terminal ... ..	1	0	
489	E869	" " " " Washer ... ..			2
491	M2703E	" " " " Screw ... ..			1
490	1010×11	" " " " Spring ... ..			1
490A	1046×13	" " " " Pad .. ..			2
	M1239	Hammer Tight Spanner ... ..	4	6	
	M1665'	Contact Point " ... ..			7
	Lodge C3	Spark Plug " ... ..			0
	M1232	Rubber Grommet, Lighting Lead ... ..			2

\* Manufacturer's Current Price.



**MAGNETO.**



**MIDGET CARBURETTER (No. 1).**



Illustration Ref. No.	Part No.	DESCRIPTION.	LIST PRICE.		
			£	s.	d.
	1137×4	Arm Plate Fixing Screw ... ..	...	...	3
	M1383	" " Cheek " ... ..	...	...	3
	M1585	Screw for Tail Coils ... ..	..	..	3

### MIDGET PATTERN CARBURETTER (No. 1).

M1	V138×16	Top Ring ... ..	1	6
M2	V145×9	Throttle ... ..	3	9
M3	V145×7	" Spring ... ..		6
125/120	V281	Body ... ..	15	0
M5		Cable complete ... ..	6	0
7	V105×1/2	" Adjuster and Nut ... ..		9
125/122	V148×7	End Cap ... ..	3	0
125/123	V299	" " Gauze ... ..	1	9
12	V107×1	Float ... ..	3	6
13	V107×2	" Cup Washer ... ..		2
14	V146×6	" Cup ... ..	2	6
15	V105×10	Compensating Tube ... ..		6
16	V355	Fuel Needle ... ..		10
M13	V152×9	Strangler ... ..	1	0
Mi4	V145×5	" Screw ... ..		3
M15	V146×2	" Spring Washer ... ..		1
M16	Midget 8	Centre Piece and Jet ... ..	5	0
20	V107×3	" " Washer ... ..		1
M18	V304	Taper Needle ... ..		9
M19	V287/V145×15	Taper Needle Holder and Screw ... ..	1	0
M20	V146×3	Washer for Cable Nipple ... ..		2
23	V107×4	Bottom Nut Washer ... ..		1
M22	V581	Bottom Nut ... ..	1	3
125/121	V288	Body Clip ... ..	2	0
26	V754E	" " Screw ... ..		6
M25	V105×12	Float Tickler complete ... ..	1	0
M26	V275	Union Filter Gauze ... ..		6
M27	V176	Sleeve, Needle Alignment ... ..	1	0
M28	V273	Retaining Ring, Throttle ... ..		4
28	V105×8	Union Nut ... ..		6
29	V105×9	" Nipple ... ..		6



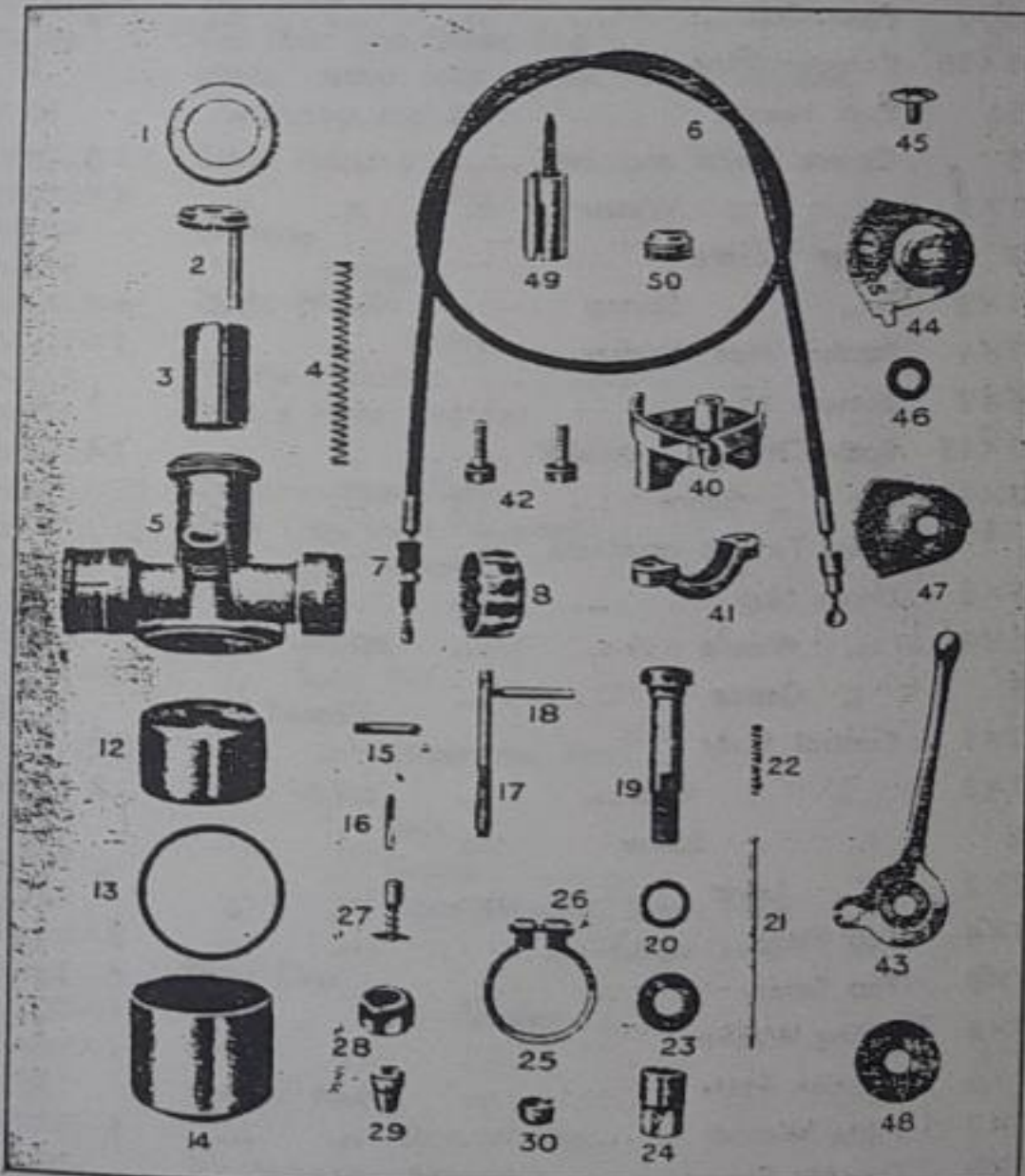
Illustration  
Ref. No.

Part  
No.

DESCRIPTION.

LIST PRICE.  
£ s. d.

M29	V257/V375	Fuel Needle Lever and Pin	...	...	5
40	V117×1	Control Body	...	...	4 6
41	V117×3	" " Clip	...	...	2 3
42	V107×16	" " Screw	...	...	8
43	V117×2	" Lever	...	...	3 9
44	V117×4	Top Plate	...	...	6
45	V117×5	" Screw	...	...	8
46	V117×8	Spring Washer	...	...	2
47	V117×6	Friction Plate	...	...	6
48	V117×7	Fibre Washer	...	...	1
	V422	Retaining Ring Strangler Screw	...	...	4



LIGHTWEIGHT PATTERN CARBURETTER (No. 2).

## LIGHTWEIGHT PATTERN CARBURETTER (No. 2).

Illustration Ref. No.	Part No.	DESCRIPTION.	LIST PRICE.		
			£	s	d.
1	V107×5	Top Ring ... ..	1	6	
2	V644	Top Disc and Guide Peg ... ..	2	3	
3	V136×10	Throttle ... ..	5	0	
4	V107×8	.. Spring ... ..		3	
5	V277C	Body ... ..	16	6	
6		Cable complete, Inner and Outer, with Adjuster and Nut ... ..	6	6	
7	V105×1.2	Cable Adjuster and Nut ... ..		9	
12	V107×1	Float ... ..	3	6	
13	V107×2	Cup Washer ... ..		2	
14	V146×6	Float Cup ... ..	2	6	
15	V105×10	Compensating Tube ... ..		6	
16	V355	Fuel Needle ... ..		10	
19	V595	Centre Piece and Jet ... ..	5	0	
20	V107×3	.. .. Washer ... ..		1	
21	V137	Taper Needle ... ..		9	
22	V107×7	.. .. Spring ... ..		2	
23	V107×4	Bottom Nut Washer ... ..		1	
24	V105×7	Bottom Nut ... ..	1	3	
25	V107×15	Body Clip ... ..	2	3	
26	V107×16	.. .. Screw ... ..		8	
27	V596	Float Tickler complete ... ..	1	0	
28	V105×8	Union Nut ... ..		6	
29	V105×9	.. Nipple ... ..		6	
	V275	.. Gauze ... ..		4	
40	V117×1	Control Body ... ..	4	6	
41	V117×3	.. .. Clip ... ..	2	3	
42	V754E	.. .. Screw ... ..		6	
43	V117×2	.. Lever ... ..	3	9	
44	V117×4	Top Plate ... ..		6	
45	V117×5	Top Screw ... ..		8	
46	V117×8	Spring Washer ... ..		2	
47	V117×6	Friction Plate ... ..		6	
48	V117×7	Fibre Washer ... ..		1	
49	V136×3	Damper Spring ... ..		6	
50	V136×15	.. Screw ... ..		3	



Illustration Ref. No.	Part No.	DESCRIPTION.	LIST PRICE.		
			E	s.	d.
51	V257/V375E	Fuel Needle Lever and Pin	...	...	5
17	V136×12	Needle Rod	...	...	2 2
18	V105×11	" " Bar only	...	...	4
	V496	Air Cleaner	...	...	12 6
	V497	" " Adaptor	...	...	2 6
	V599	" " Clip	...	...	1
	V597	" " " Screw	...	...	1 6
	V598	" " " Nut	...	...	1

**SPECIAL LIGHTWEIGHT SINGLE LEVER CARBURETTER (No. 3).**

	V577	Body	...	...	...	16 6
	V107×5	Top Ring	...	...	...	1 6
	V603	Top Disc and Guide Peg	...	...	...	2 3
		Cable, Inner and Outer, with Nipples, Adjuster and Nut	...	...	...	6 6
	V105×1	Cable Adjuster	...	...	...	9
	V105×2	" " Nut	...	...	...	1
	V580	Throttle	...	...	...	5 0
	V586	" Spring	...	...	...	3
	V137×4	Taper Needle	...	...	...	9
	V107×7	" " Spring	...	...	...	2
	V413	Needle Adjuster	...	...	...	6
	V595	Centre Piece and Jet	...	...	...	5 0
	V107×3	" " " " Washer	...	...	...	1
	V105×10	Compensating Tube	...	...	...	6
	V107×15	Body Clip, Inlet Manifold	...	...	...	2 3
	V754E	" " Screw	...	...	...	8
V596	V207	Tickler	...	...	...	1 0
	V369	" Spring	...	...	...	
	V111×2	" Split Pin	...	...	...	
	V355	Fuel Needle	...	...	...	10
	V257/V375	" " Lever and Pin	...	...	...	5
	V381	Banjo Union	...	...	...	2 0
	V382	" " Bolt	...	...	...	1 3
	V404	" " Gauze	...	...	...	8
	V383	" " Fibre Washer, Small Hole	...	...	...	1
	H104×8	" " " " Large Hole	...	...	...	1
	V146×6	Float Cup	...	...	...	2 6
	V107×2	" " Fibre Washer	...	...	...	2
	V107×1	Float	...	...	...	3 6
	V581	Bottom Nut	...	...	...	1 3
	V107×4	" " Fibre Washer	...	...	...	1
	V605	Air Strangler Assembly	...	...	...	1 1 0
	V584	" " Body only	...	...	...	12 0
	V113×14	" " " Clip	...	...	...	

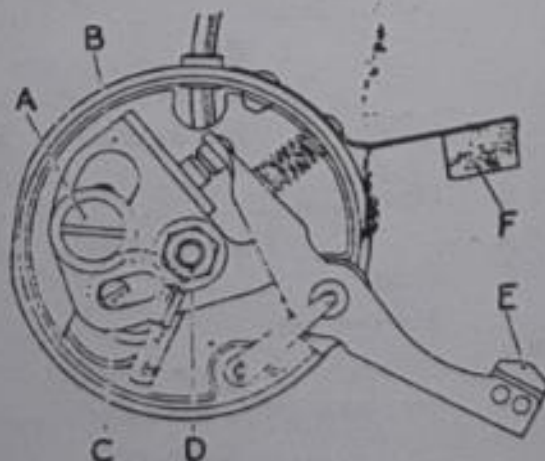
Illustration Ref. No.	Part No.	DESCRIPTION.	LIST PRICE.		
			£	s.	d.
V754E		Body Clip Screw ... ..			6
V548		Strangler Valve ... ..	1		0
V547		.. Spindle ... ..	1		6
V562		.. Valve Screw ... ..			2
V585		.. Lever ... ..	3		3
V561		.. .. Screw ... ..			5
E9775		.. .. Ball, $\frac{3}{8}$ " dia. ... ..			1
V588		.. .. Spring ... ..			2
V496		Air Cleaner ... ..	12		6
V599		.. .. Clip ... ..			
V597		.. .. .. Screw ... ..	2		6
V598		.. .. .. Nut ... ..			
V117×1		Control Body ... ..	4		6
V117×3		.. .. Clip ... ..	2		3
V754E		.. .. Screw ... ..			8
V117×2		Control Lever ... ..	3		9
V117×4		.. .. Top Plate ... ..			6
V117×5		.. .. .. Screw ... ..			8
V117×8		.. Spring Washer ... ..			2
V117×6		.. Friction Washer ... ..			6
V117×7		.. Fibre Washer ... ..			1

### CONTACT BREAKER ASSEMBLY (latest pattern).

The contact breaker assembly illustrated below supersedes that shown on page 15. The cam adjuster has been introduced to facilitate accurate setting of the contact points. Spare parts list will be found on page 21.

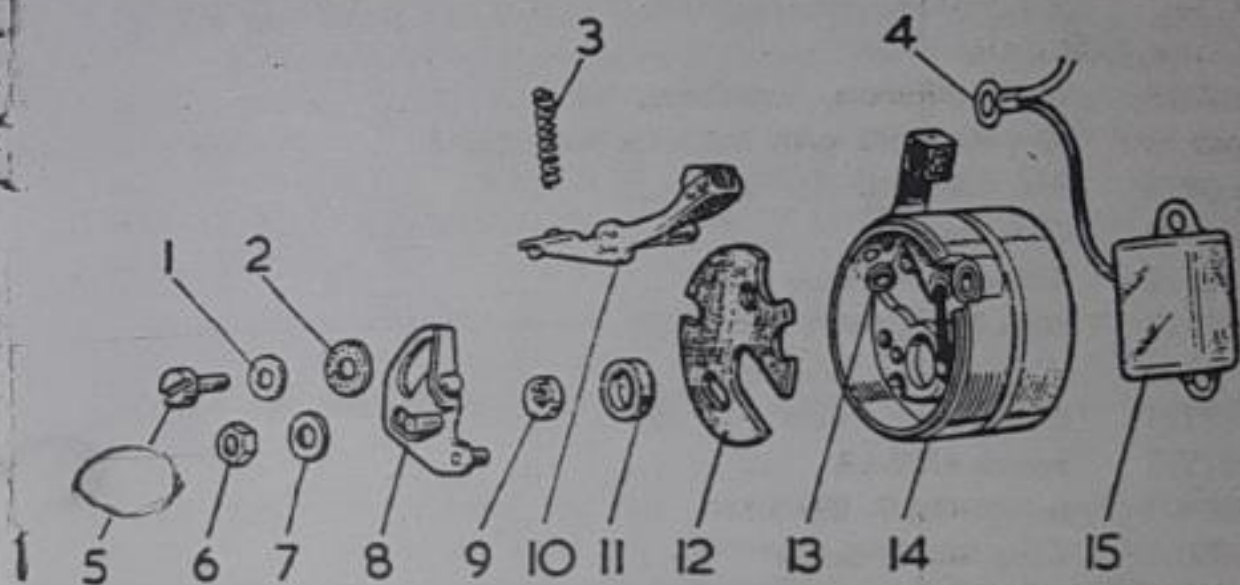
#### ADJUSTMENT.

Turn flywheel clockwise till rocker pad "E" is on top of the cam profile of the flywheel boss. Release screw "A" the flywheel boss. Release screw "A" Position bracket "B" by turning adjuster cam "C" until .015" feeler gauge can be inserted between the contact points. Tighten screw "A" and withdraw feeler gauge. It is not necessary to disturb nut "D" when adjusting point gap. A felt pad "F" is used to keep the cam lightly lubricated. It is advisable to occasionally re-impregnate the pad with high melting point grease.





## SPARE PARTS LIST.



Illus. No.	Part No.	DESCRIPTION.	PRICE EACH.		
			Qty.	£	s. d.
1	M.1802E	Washer, Point Bracket Lockscrew ...	1		1
2	M.1805E	Insulating Washer, Point Bracket Lockscrew ...	1		1
3	1047×3E	Spring, Rocker Arm ...	1		2
4	M.1291E	Shoe, L.T. Lead ...	2		1
5	M.1801E	Point Bracket Lockscrew ...	1		2
6	1113×4E	Nut, Cut-out Terminal and Point Bracket ...	4		2
7	1113×5E	Washer, Brass ...	4		1
8	M.2313E	Point Bracket ...	1	2	3
9	M.2311E	Point Bracket Cam ...	1		6
10	M.1714E	Rocker Arm ...	1	4	0
11	M.2310E	Bush for Cam ...	1		6
12	M.2309E	Insulating Plate ...	1		4
13	1010×16E	Insulating Bush ...	3		2
14	M.2506	Condenser Box only ...	1	4	6
15	M.1750D	Condenser ...	1	4	9
—	M.2504	Condenser Box Assembly complete ...	1	18	6

\* Insist on

GENUINE

*Villiers* SPARES

## LIGHTING SET.

Illustration Ref. No.	Part No.	DESCRIPTION.	LIST PRICE.		
			E	s.	d.
<b>HEAD LAMP. Pat. M35.</b>					
	612163	Lamp complete, less Cables	...	...	...
	612170	Rim Assembly with Reflector Assembly	...	...	...
	608156	Rim only with Springs	...	...	...
612170	612103	Glass only	...	...	...
	612172	Reflector Assembly	...	...	...
	608121	Glass Fixing Wire	...	...	...
	612220	Glass Sealing Washer	...	...	...
	612171	Bulb Holder, Main	...	...	...
	351577	Switch U39-L3	...	...	...
	380407	Switch No. 9, Dip	...	...	...
	112201	Lamp Fixing Screw	...	...	...
	351567	Switch Handle with Screw	...	...	...
	105751	Screw only	...	...	...
	308234	Switch Fixing Wire	...	...	...
	69	Main Bulb, 18/18 watt.	..	...	...
	70	.. .. 24/24 ..	...	...	...
	975	Pilot Bulb	...	...	...
		Parking Battery. Ever-Ready No. 800.			
<b>TAIL LAMP.</b>					
	53041A	Tail Lamp complete with Bulb	...	...	...
	521909	Rim, Glass and Rubber Assembly	...	...	...
	521907	Body Assembly	...	...	...
	525762	Bulb Holder Interior	...	...	...
	531260	Bulb Holder	...	...	...
	571388	Coupling Nut	...	...	...
	180404	Fixing Nut	...	...	...
	571387	Cable Cover Shell	...	...	...
	571389	.. .. Washer	...	...	...
	999	Bulb	...	...	...
<b>CABLES.</b>					
	851837	Cable Set	...	...	...
	612153	Cable for Speedometer	...	...	...
	612154	.. Head to Tail	...	...	...
	612155	.. to Magneto	...	...	...
	21/M34	.. Head to Earth	...	...	...
	612167	Battery Lead and Battery Connection Assembly	...	...	...



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keeps* **Villiers** *in front*



