INSTRUCTION and

**MAINTENANCE** 

Moby lette

# Manual

Moby matic

SOLE CONCESSIONAIRES

## MOTOR IMPORTS CO. LTD.

158, Stockwell Road, London, S.W.9

Telephone: BRIxton 7807/7893

## PETROL/OIL MIXTURE

Certain Oil Companies provide dispensing equipment for correctly proportioned petrol-oil mixtures for two-stroke engines.

Make sure you obtain the right mix for your machine.

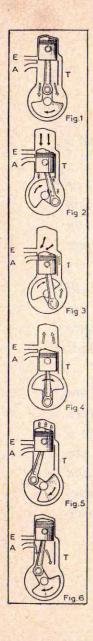
## FOREWORD

YOU are now the owner of the world's most successful moped—

When you ride your Mobylette or Mobymatic for the first time, you join over two million owners united by an enthusiastic appreciation of the sterling qualities of these wonderful machines.

A careful study of this booklet will enable you to extract the maximum use and performance from your Mobylette or Mobymatic, and will result in thousands of trouble-free miles.

The Mobylette and Mobymatic are manufactured and backed by the resources of the world's largest moped factory—Motobécane, Pantin, France. There are over 5,000 agents in every major town and city in the United Kingdom and Europe, offering a Spares and After Sales Service second to none.



## THE PRINCIPLE OF THE TWO-STROKE

- A. The ascending piston compresses a mixture of petrol and air in the cylinder head and creates at the same time a partial vacuum in the crankcase, which latter, when the piston has travelled past the inlet port, causes a fresh mixture of petroil and air to be drawn into the crankcase, see Fig. 1.
- **B.** A spark occurs at the sparking plug, and the resultant expansion of gases forces the piston downwards, providing the power to drive the machine, see Fig. 2.
- C. The descending piston uncovers the exhaust port allowing a free escape of the burnt gases, and at the same time uncovers the transfer port, see Fig. 3, allowing the mixture, which is being compressed in the crankcase, to transfer into the cylinder, when the incoming gases assist in exhaust scavenging by driving the spent gases before them, thus completing the cycle of operation, see Fig. 4.
- D. Fig. 5 shows the mixture transferred to the cylinder head, with all ports closed by the piston, and the cycle of operation about to recommence, as in Fig. 6.

## TECHNICAL DATA

#### 1. ENGINE AND TRANSMISSION

1. ENORE AND	LIVI	SMISSION
Type		Single cylinder, two-stroke, with twin transfer ports.
Bore		39 mm.
Stroke		41.8 mm.
Capacity		49.933 cc.
Compression ratio		6.5:1
Cruising speed (Mobylette)		25 m.p.h. at 5,200 r.p.m.
(Mobymatic)		28 m.p.h. at 5,000 r.p.m.
Maximum speed (Mobylette)		28 m.p.h. at 5,800 r.p.m.
(Mobymatic)		35 m.p.h. at 6,000 r.p.m.
Cylinder Head:		
Combustion chamber volume		8.6 cc. (0.641 cub. in.)
Combustion chamber volume	•••	8.0 cc. (0.041 cub. III.)
Piston:		
Weight, complete with pin and rings		2.786 oz.
Clearance		0.00039 in.
Piston Rings:		
Dimensions		$39 \times 2 \times 1.6$ mm. $(1.535 \times 0.0788 \times 0.063 \text{ in.})$
Gap clearance		0.15 mm. (0.0059 in.)
Groove clearance		0.10 mm. (0.0039 in.)
Gudgeon Pin:		
Diameter		13 mm. (0.5118 in.)
Press-fit in piston		0.005 mm. (0.0002 in.)
Clearance in small end		0.01 to 0.02 mm.
		(0.00039 to 0.00078 in.)
是是一种的 新香油的 海拔等		三人類時代養好, 安京司
Crankshaft:		
Heat-treated forged steel, suppo	rted	$15 \times 42 \times 13$ mm.
on two ball bearings		$(0.59055 \times 1.65354 \times 0.51181 \text{ in.})$
Balance		38 grammes (1.34 oz.) over
		connecting rod with small end
0.1		bush.
Side clearance in crankcase		0.0039 to 0.0078 in.
Connecting Rod:		
Heat-treated forged steel:		
Side clearance (on crank pin)		0.0039 in.
(in piston)		0.0078 in.

## TECHNICAL DATA—continued

	DATA—continued
Carburettor:	
Standard Mobylette	Super de Luxe
Make Gurtner B Chamber 6110/1 Jet 5012/19	6110/2 6110/5
Throttle 6112/3	5012/19 5012/19 (20 for run-in) 6112/3 6112/3
Float 6437	6437 6437
Primary Transmission:	
V-belt dimensions (Mobylette)	0.511×0.315×29.33 in.
(Mobymatic) Belt Pulley dimensions (Mobylet	0.551 × 0.275 × 31.456 in.
(Mobyma	te) 7.8425 in. atic) 8.0708 in.
Secondary Transmission:	
Chain	0.5×0.305 in.
(Mobylette)	100 links
(Mobymatic) Pulley sprocket	104 links
Rear wheel sprocket (Mobylette)	11 teeth
(Mobymatic	
Overall gear ratios (Mobylette)	c) 54 teeth 14:1
(Mobymatic)	19:1 to 12:1
(1) - 1 · 图 · 图 · 图 · 图 · 图 · 图 · 图 · 图 · 图 ·	
II. CY	CLE PARTS
Transmission (Pedal Drive):	
Chain	0.5×0.305 in.
(Mobylette)	98 links
(Mobymatic)	97 links
Chain wheel	32 teeth
Freewheel	18 teeth
(Mobylette)	1.36614 in. dia.
(Mobymatic)	1.41732 in. dia.
Tyres:	
Mobylette, Standard and De Lux	600 50
Mobylette Super de Luxe and Mo	te 600 × 50 mm. bymatic 23 × 2 in.
Probylette Super de Luxe and Mo	bymatic 23×2 m.
Fuel Tank:	
Capacity: Mobylette, Standard	and De
Luxe	$\frac{3}{4}$ gall. approx.
Mobylette Super de L	uxe and
Mobymatic	1½ gall. approx.
Oil ratio	6% (i.e. 1 part of oil to 16 parts of
	petrol— $\frac{1}{4}$ pint of oil to $\frac{1}{2}$ gall. of petrol).

## TECHNICAL DATA-continued

LECITIVE	AL	DATA-continued
Gradient Limit without Pedallin	ıg:	
Mobylette		1 in 10
Mobymatic		1 in 7
Weight (Dry):		
Mobylette Standard		68 lbs.
De Luxe	***	CONTRACTOR OF THE PROPERTY OF
Super de Luxe		75 lbs 88 lbs.
Mobymatic		92 lbs.
III. ELI	ECTR	ICAL EQUIPMENT
Flywheel magneto		Novi, 6 v. 8 w.
Breaker point gap		0.012 in.
Ignition advance		0.11 in.=25° approx.
Plug electrode gap		0.012 to 0.016 in.
Headlamp bulb		6 volts, 1 amp.
Rearlamp bulb		12 volts, 0.5 amp.
Spark plug		Floquet 14C-102 or K.L.G.
Horn (Mobymatic)		Tesvox C.M.56
IV. B	EARI	NG DIMENSIONS
Crankpin (Mobylette)	Total Control	22 needles 2.5×13.8 mm. (0.09843×0.54331 in.)
		or INA needle bearing 15.21× 20.20 × 13.8 mm. (0.59882 × 0.79527 × 0.54331 in.)
Mobymatic		INA needle bearing $15.02 \times$
		13×8 mm. (0.59134×0.51181 ×0.31496 in.)
		or $15.21 \times 20.30 \times 13.8$ mm.
Small end		$(0.59882 \times 0.79527 \times 0.54331 \text{ in.})$
Small end		Phoenhor bronze buch or INIA

Phosphor bronze bush, or INA needle bearing 13×16×14 mm. (0.51181×0.62992×0.55118 in.)

48 balls,  $\frac{3}{32}$  in. dia. 18 balls,  $\frac{1}{4}$  in. dia. SKF ball bearing  $10 \times 30 \times 9$  mm. SKF ball bearing  $12 \times 32 \times 10$  mm.

Two-15  $\times$  42  $\times$  13 mm.

Small end ...

Crankshaft

Steering head

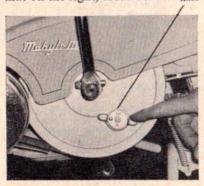
Rear wheel (Mobylette)

(Mobymatic)

Front wheel

#### OPERATING THE MACHINE

- A. Situated on the right handlebar is a twistgrip which serves to operate both the decompressor and the throttle. Turned to the right, i.e. away from the rider, the decompressor is opened, and when the grip is turned towards the rider the decompressor is closed and the throttle opened. The rider can then regulate the speed of the machine as desired.
- B. On the left handlebar is the choke. The function of this is to assist starting from cold; it is not normally used except under very cold conditions. Under no circumstances should this be used when the engine is warm.
- C. Brakes: These are operated by the two levers situated at the ends of the handlebars. That on the left, operating rear brake, and that on the right, front brake. Knob

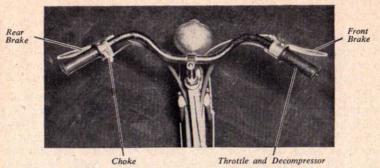


- D. By movement of one simple control, the engine can be disconnected and the machine used as an ordinary cycle. To do this, turn winged selector on bottom bracket belt pulley in direction of arrow marked "V". To reconnect engine to rear wheel, reverse movement, i.e. in direction of arrow marked "M". This can be facilitated by gently rocking the machine to and fro to enable the ratchet to engage easily.
- E. Before riding, adjust height or position of handlebars (expander bolt or U-clamps) and of saddle, the latter being positioned so that both feet can be set easily on the ground.
- F. Always pre-mix the petrol and oil by shaking together in a clean container, the oil proportion to be 6 per cent, i.e. slightly less than  $\frac{1}{4}$  pint, or six measures of oil to  $\frac{1}{2}$  gallon of petrol. N.B.: The measure is situated in the cap of the petroil tank.

#### **IMPORTANT**

During the period of running-in a full  $\frac{1}{4}$  pint of oil, but not more, should be used with each  $\frac{1}{2}$  gallon of petrol.

The Manufacturers officially recommend Castrol Self-Mix S.M.20 oil.



#### MOBYLETTE HANDLEBAR CONTROLS

#### DRIVING

#### STARTING

- 1.—Open fuel tap by turning milled knob gently in an anticlockwise direction.
- 2.—On a Standard Model Mobylette, open decompressor by turning twistgrip as far as possible to the right. Pedal a few yards, then turn twistgrip to the left, when engine will start.
- 3.—On De Luxe and Super de Luxe Mobylettes as well as on the Mobymatic (which models are fitted with the Dimoby Double Automatic Clutch) either proceed as Paragraph 2 or first place machine on its stand, open throttle slightly and simultaneously use a pedal as kickstarter. Apply brake to stop rear wheel spinning. With engine idling, remove machine from stand, mount and then start off by opening further the throttle.

This starting method is recommended especially when riding off uphill.

- 4.—In very cold weather depress choke lever for a few moments, releasing it as soon as engine starts.
- 5.—Control speed by rotating twistgrip throttle as desired. Turn to the left to increase speed and to the right to slow down.

#### STOPPING

6.—To stop, close throttle and operate brakes. On the Standard Model Mobylette, open decompressor and the engine will stop. It will be restarted by pedalling with decompressor again closed. On

#### DRIVING-continued

all other models the clutch will automatically disengage when the road speed drops below about 3-4 m.p.h. The engine will continue to run if the tickover is correctly adjusted. To stop engine, operate decompressor by turning twistgrip as far as possible to the right.

Note: Although the machine will climb fairly steep gradients unassisted, it is advisable to give pedal assistance when the speed falls below 8 m.p.h. Whilst running-in, do not overwork or overheat engine. When descending long hills, remember that the engine is your best brake. Keep twist-grip control in neutral position (i.e. with both throttle and decompressor closed). Apply brakes as required. Never close fuel tap to coast down-hill and save petrolengine lubrication will cease!

#### GENERAL SPECIFICATION

#### **ENGINE**

- A. CYLINDER HEAD: Of light alloy with deep finning to assist cooling; attached to cylinder by four studs.
  - B. SPARKING PLUG: 14 mm.
- C. CYLINDER: Light alloy, chrome lined, attached to crankcase by four bolts; air-tight joint at base and head.
- D. PISTON: Of light alloy, fitted with two rings at 3 mm. intervals. Gudgeon pin secured by circlips.
- E. Crankpin is held firmly by means of two cones. The engine shafts are run on two bearings  $15 \times 42 \times 13$  mm. between the pulley and the flywheel magneto.
- F. CRANKCASE HOUSING is in two sections, bolted together and sealed with a paper gasket.

**Primary Drive:** By endless V-belt between the crankshaft pulley and the loose reduction pulley on the gearwheel axle. Engine may be disconnected from rear wheel by movement of the winged knob on bracket pulley.

Secondary Drive: By chain from pulley sprocket to rear wheel.

Flywheel Magneto: Provides direct current for ignition and lighting. Composed of a circular plate bearing the armatures, contact breaker, condenser and of a rotor; 6v. 8w.

FRAME: Electrically welded, double-cradle pattern for Standard and De Luxe Mobylettes; and pressed steel spine type for Super

### GENERAL SPECIFICATION—continued

de Luxe Model Mobylette and Mobymatic, ensuring maximum stability through extremely low centre of gravity.

CHAINGUARDS: Of pressed steel, adequately protecting engine and chains. Easily detachable screws.

TANK: Capacity \(\frac{3}{4}\) gal. approx. (Mobylette), 1\(\frac{1}{4}\) gal. approx. (Super de Luxe Mobylette and Mobymatic), fitted with a milled turncock-type tap.

EXHAUST SILENCER: Cylindrical, with spiral baffle plates. Attached to cylinder by exhaust pipe with finned nut and metal-plastic joint.

SADDLE: Soft top of large dimensions mounted at rear on long spiral springs (Mobylette); rubber top cantilever-type (Mobymatic).

HANDLEBARS: Raised pattern with two brake levers below grips. CARBURETTOR: Gurtner, with choke. Main filter between tank and tap; safety filter at entry to float-chamber, with jet fitted below.

#### DISMANTLING AND SERVICING

ENGINE: Remove chain covers by means of screws, remove all engine controls, paying particular attention to the pipe from petroil tank to carburettor. Unscrew and remove fixing bolts. Remove belt from its pulley.

The engine may then be removed from the frame.

FLYWHEEL MAGNETO: Hold flywheel steady to prevent turning. Unscrew nut, Left Hand Thread. Remove rotor, leaving cam in place.

Remove cam with extractor (taking care not to damage thread of crankshaft).

ENGINE PULLEY: Remove locknut, right hand thread. Unscrew pulley by means of holes provided.

CYLINDER HEAD: Remove the four nuts from fixing studs. Withdraw the securing plates. Remove cylinder head.

CYLINDER: Remove cylinder, taking care not to exert any side force on the connecting rod. (Keep piston at bottom dead centre.)

Remove head gasket.

Remove base gasket.

ENGINE CRANKCASE: Undo nuts and remove screws. Separate the two halves by warming them slightly. The crankshaft is then freed.

#### DISMANTLING AND SERVICING-continued

CONNECTING ROD: Take down by removing crankpin plug (this is a very delicate operation and great care should be taken). When reassembling, make certain that fitting is accurate and that crankshaft and bobweights are correctly aligned.

#### DRIVES

PULLEY AND GEARWHEEL: Undo fixing bolt. Take off belt. Remove crank by releasing cotter-pin. Withdraw dust-shield. Take off clip, pulley, sprocket and spacing washers. Undo cotter-pin of gearwheel crank. Remove gearwheel crank. Remove circlips and washers, and withdraw spindle.

REAR WHEEL: Undo nuts. Push wheel forward in frame-brackets. Remove chains.

Belt: Tension correctly by undoing lower bolt and upper bolt. Engine-unit will move to-and-fro in frame-slots about upper bolt. The belt requires no attention for thousands of miles.

GEARWHEEL CHAIN: Undo nuts. Tension correctly by moving take-up.

Wheel Adjuster

ENGINE CHAIN: Take up slack in chain by drawing wheel back. While adjusting, see also to adjustment of gearwheel chain.

To keep chains in good order, clean in paraffin bath and thoroughly grease every 1500 miles.

For re-assembling, work in reverse order.



#### HUBS

Chain Adjuster

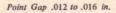
Need little attention. Check for play; grease packed at factory, or fitted with grease nipple.

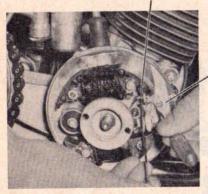
ADJUSTMENT (FRONT HUB): Loosen nut, then lock-nut. Withdraw brake-washer and dustcover. Screw up cone. Re-tighten nuts and make sure that wheel turns freely, with bearings not too tight.

#### TWIST GRIP

Control cables should be examined occasionally and greased as required. Decompressor should have clearance at valve. Before working the decompressor, see that twist grip closes the throttle completely.

CHOKE CONTROL must have some play in position of rest regulated by position of cable in slide.





Adjusting Cam Screw

### FLYWHEEL MAGNETO

Lubricate by placing a few drops of oil on the cam packing every 2000 miles, adjusting

the gap of the platinum points to .012 to .016 in. with a feeler gauge.

SETTING: Should the magneto timing slip and the engine cease to fire, the ignition setting will require attention.

Unscrew the nut, remove the rotor and withdraw cam by means of an extractor. Set the piston at top dead centre, then lower it \( \frac{1}{8} \) in. by turning to the left. Replace cam, making it coincide with the stator, so that the platinum points separate exactly at this moment. Clean the points if necessary. Replace rotor. Tighten up flywheel nut. REMEMBER: LEFT-HAND THREAD!

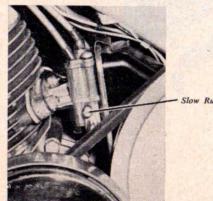


## THE GURTNER CARBURETTOR

On mopeds carburation presents special difficulties, and correct adjustment is particularly important. The maximum possible orifice of the jet is 2.585 mm., so that the slightest impurity can choke the jet either partially or completely, resulting in irregular firing, or complete stoppage of the engine.

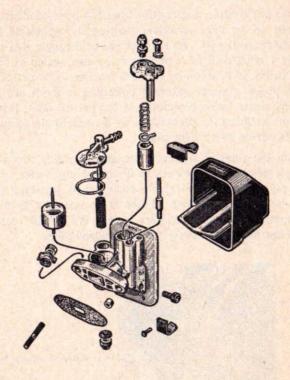
To avoid this trouble, a decanting filter has been produced, which has proved to be very effective, making it impossible for any impurity to reach the jet. As the fuel passes through, it is perfectly filtered by a cylindrical sieve of very fine mesh, sealed at each end, and held firmly in position by a metal bracing. The petroil supply pipe is sloped to prevent sediment collecting in front of the sieve. Should any water become secreted in the petroil tank, this is prevented from entering the carburettor by a specially designed hollow cup, which serves as an inlet plug.

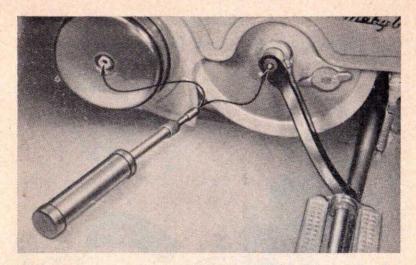
Cleaning the filter is simple. Unscrew the plug, tip the filter to an angle of about 45 degrees to discharge any water. Unscrew the inlet plug and clean filter with clear petrol, brushing lightly if the sieve is partially blocked. There is no necessity to dismantle the carburettor or petroil delivery pipe. We would recommend that the filter be cleaned every fifteen hundred miles.



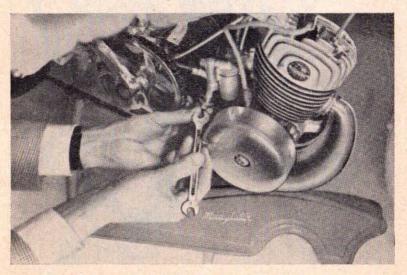
Slow Running Adjuster

## CARBURETTOR (MODEL WITH FLANGE FIXING)





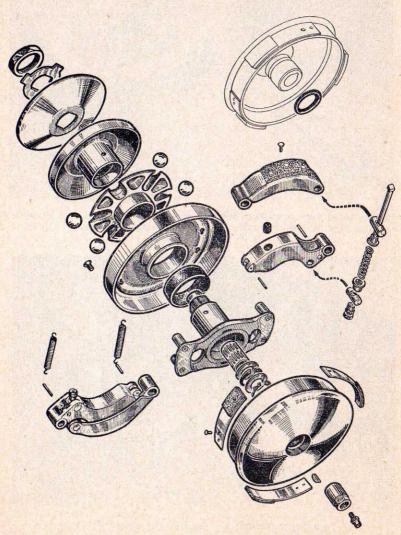
Lubrication of Automatic Clutch and Bottom Bracket Pulley: Every 1,200 miles in normal use, or every 600 miles in frequent starting and stopping, i.e. town or heavy traffic conditions.



Draining Water from and Cleaning Carburettor Filter.

Mobymatic

Automatic Clutch with Expanding Pulley



## **MOBYMATIC**

This machine is equipped with a centrifugal, infinitely-variable gearing unit, self-changing to select the best gear ratio according to driving conditions.

Do not forget that this is a precision-engineered device, initially factory-adjusted, and it requires:

- (a) Frequent lubrication
- (b) Periodical cleaning

#### LUBRICATION

- (1) When the machine is new, and then every 600 miles, grease the nipples on bottom bracket axle and on the clutch and gearing unit thoroughly with Castrographite.
- (2) Oil abundantly the balls in the gear changing device, particularly after every cleaning (see below).

#### CLEANING

Proceed as follows:

Dismantle left-hand chainguard. Remove belt. Close pulley walls so that the balls appear.

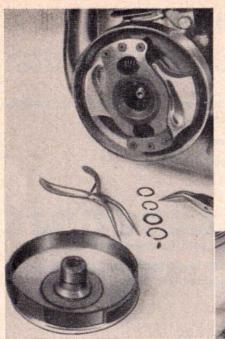
Clean balls and housings thoroughly with paraffin.

Drain well by hand-turning the speed-changing unit. Lubricate balls and housings with an SAE 50 grade oil.

Replace belt and chainguard. Run engine with machine on stand so that gearing unit throws off any surplus oil. (Apply rear brake to de-clutch.)

N.B.—The above maintenance instructions should be observed in addition to those contained in the other sections of this manual. Do not forget to lubricate front and rear suspension.

LOOK AFTER YOUR MACHINE AND IT WILL SERVE YOU WELL.



Dimoby Double Automatic Clutch: To remove clutch drum, use grip on flywheel magneto. A special hub extractor is required.

No adjustments are ever necessary.

Mobymatic Engine Mounting (New Type): The Silentbloc upper suspension units and hairpin-type coil spring in lower release device require no adjustments or maintenance.

Mobymatic Rear Plunger Suspension Unit

#### FAULTS CHART

#### BREAKDOWNS

#### ENGINE WILL NOT START

CURE

CAUSE

Petroil

Tap shut Tank empty Petroil pipe clogged	Open it Fill it Clear by blowing.
Carburettor	
Clogged filter Choked jet Float-needle seized	<ul> <li>Clean it.</li> <li>Clear it with a piece of fine wire; do no enlarge jet.</li> <li>Replace.</li> </ul>
Float damaged or hole Cable-controls Air leaking in	Replace Adjust them Tighten up carburettor joint to cylinde
Fouled Defective Wrong gap	Clean with petrol Replace Adjust to .012016.
Flywheel Magneto	
Ignition wire loose or eplatinum points dirty Platinum points displace Condenser burnt out Broken contact breaker Short circuit in contact Short circuit inside coil	Clean them.  Adjust to .012016.  Replace.  Replace.
ENGINE TU CAUSE	NS IRREGULARLY OR STOPS CURE
Petroil	
Empty tank Water in petroil Fouled piping	<ul> <li>Refill.</li> <li>Thoroughly drain system and replenish</li> <li>Clear.</li> </ul>

#### Carburettor

Choked jet ... ... Float-needle jammed ... Remove float chamber, clean and free needle. Fouled air inlet Take out and clean.

Unsuitable fuel mixture Observe rules for running-in and for

mixture.

#### FAULTS CHART-continued

#### Flywheel Magneto

Ignition cable loose or damaged Examine.

Fouled platinum points ... Clean and adjust. Short circuit ... ... ... Check ignition circuit.
... Replace.

Burnt out condenser ...

#### Engine

Overheated, partial piston seizure Allow to cool down; fit larger jet.

#### ENGINE FOUR-STROKING

(i.e. during each two strokes, once misfiring.)

CAUSE

CURE

#### Carburettor

Jet too large ... Fit a smaller one.

Damaged seating of float-needle Refit. Float chamber damaged or holed Refit. Fouled air-filter Clear.

Mixture too rich See directions for mixture.

#### Plug

Fouled Clean or replace.

#### Carbon Deposit

In exhaust-pipe and silencer ... Clear cylinder ports with soft metal

scraper.

Decarbonize silencer.

#### ENGINE NOT PULLING

#### CAUSE

CURE

#### Plug

Defective Refit. Broken porcelain Replace.

Joint not gastight Tighten up plug on cylinder-head.

Fouled air-filter Choked pipe ... Clear. Clear.

Carburettor wrongly adjusted... Fit larger jet and adjust controls.

#### Flywheel Magneto

Defective platinum points Replace. Defective condenser ... Replace. Contact breaker spring weak ... Refit.

#### **Engine**

New engine ... Run in for 300 miles.

Engine carbonized Decarbonize. Cylinder bore worn .... Replace.

Air leaks causing incorrect mix-Replace carburettor joints on pipe and ture shields.

#### FAULTS CHART-continued

Cylinder head loose ... ... Tighten up studs firmly. Decompression valve not gas-

tight ... ... Replace or recondition.

Exhaust chamber blocked ... Clear.

#### ENGINE MISFIRING (Loud explosions)

CAUSE

Mixture too rich or too weak ... Keep to instructions for mixture.

Plug

Overheated ... See mixture above.

Slight short-circuit ... Clean. Broken porcelain ... Replace.

Magneto

Late firing ... ... Adjust.

Fouled platinum points ... Clean and adjust.

Carburettor

Backfiring ... ... Clean jet and air filter; fit larger jet.

#### ENGINE OVERHEATING

CAUSE CURE

Poor mixture ... ... Keep to rules for mixture.

Carburettor

Jet too small ... ... Refit larger jet.

Magneto

Late firing ... ... Adjust.

Engine

Carbonized ... Clean cylinder ports, exhaust pipe and chamber.

Cylinder flanges fouled ... Clear.

#### ENGINE RACING

CAUSE

CURE

Sticking carburettor slide ... Dismantle and free.

Sticking throttle cable ... Free with penetrating oil.

Clutch slipping ... Adjust with nuts on clutch bearing.

## EXCESSIVE PETROIL CONSUMPTION CAUSE CURE

Leak in petroil feed ... Tighten up.

Carburettor

Not petroil- and gas-tight ... Refit packing, examine all joints. Defective needles ... Examine.

Jet too large ... Fit smaller jet.

#### VITAL HINTS

Sparking-Plug. Regularly check the state of the plug. The electrodes should be of an earthy colouring, neither white nor black. White electrodes indicate the use of weak mixture causing loss of power and overheating of engine. Black deposit on electrodes shows that the mixture is too rich (too much petrol) or that the proportion of oil in the petrol is too great. If necessary, adjust plug-points .012-.016 in. Too small a gap leads to clogging of engine, while too large a gap may cause mis-firing, especially when picking up speed again. With the engine turning slowly and with maximum compression (throttle fully open) the rotary magneto cannot produce a spark strong enough to pass between the electrodes. To ascertain whether the plug is sparking, put it in contact with the engine-cylinder and work the flywheel magneto (plug connected up with magneto).

Decarbonizing the Engine. If the engine overheats, lacks power or backfires through the carburettor, it is essential to proceed with decarbonizing.

Every two thousand miles or so, clean the ports of the cylinder, top of piston and bottom of combustion-head with a copper scraper to prevent scratching. Piston rings should move freely in their grooves. In case of sticking, loosen with petrol. Blackened rings should be replaced.

Decarbonize the exhaust pipe and silencer by dipping in a soda-bath about every four thousand miles. Clean baffles by removing inspection plate on base of silencer.

N.B.—Using good quality oil means less carbonizing than with poor quality. Keep to the oil-petrol mixture of 6% oil, or 7% while running-in. Shake up vigorously in a can before pouring into tank.

Insufficient oil means wear on piston and bearings. Too much oil causes carbonizing in engine.

When your machine has been running some time, it is a good plan to tighten up those engine-nuts which have no grip-washers.

#### TOOLS FOR THE ROAD

#### CONTENTS OF TOOL KIT

1 plug spanner 3 box spanners 1 cranked jet spanner 3 tyre levers

2 tommy bars

#### REPAIR KIT

It is advisable to carry the following:

1 spare plug 1 spare inner tube

1 section of chain with spring 1 valve insert

link
Brake cables, control cables.

1 tube solution, and a selection of patches.

#### OUTSIDE UPKEEP

When washing, be careful to shield carburettor and magneto. Sponge down and polish up with very clean woollen cloth. Use only a good wax polish. Clean chromed parts with woollen

rag.

#### **TYRES**

A flat tyre slows down running and results in damage to tyre and tube.

A tyre over-inflated may cause breakage of spokes, and detracts from comfort. Punctures are mended as on an ordinary bicycle.

#### Recommended Tyre Pressures:

Hutchinson 600×50B Michelin 600×50B			23 lbs. 21 lbs.	27 lbs. 25 lbs.
Hutchinson 23 in. ×2 in. Michelin 23 in. ×2 in.	- ())		24 lbs. 23 lbs.	28 lbs. 27 lbs.

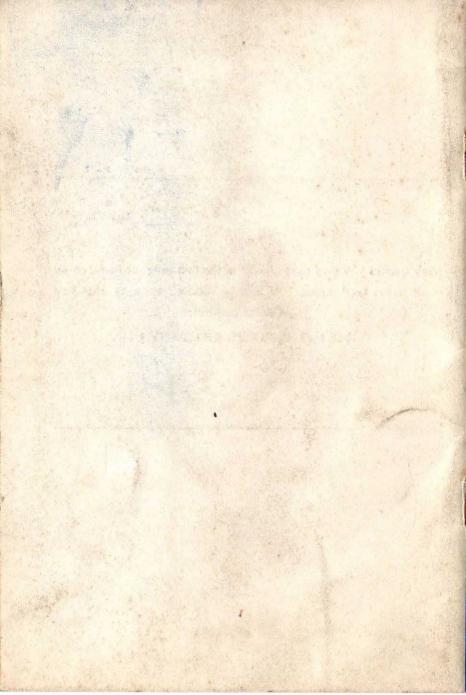
#### ACCESSORIES

(Available as extras)

Windscreen Legshields Electric horn Pannier bags
Speedometer
Waterproof cover

Offset box wrench, 14 mm.

Any queries you may have should in the first instance be taken up with your local agent. If still in doubt, write to the Sole Concessionaires: MOTOR IMPORTS COMPANY LTD.



# IceniCAM Information Service



www.icenicam.org.uk