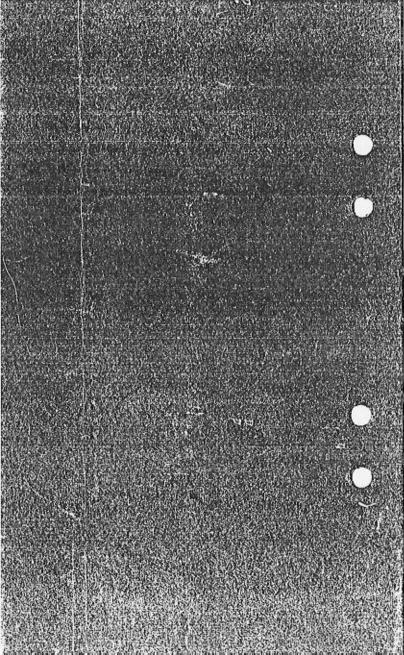
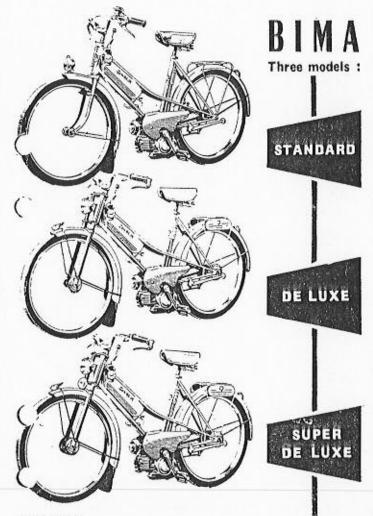




CYCLES PEUGEOT, BEAULIEU VALENTIGNEY DOUBS ...





### Description

Reinforced frame, Friction roller drive, to rear wheel. Fuel tank capacity 0.55 gallons.

#### • Engine specifications

Bore	40 mm
Stroke	
Cylinder capacity	49 ccs.
Virtual compression ratio	5.5 : 1
Fuel consumption	188 miles per gallon
Magneto flywheel ignition.	
Speed on the level	
(the machine can climb a 1 in 14 slope with a rider	weighing 155 lbs.)

# THE TWO STROKE ENGINE WITH CRANKCASE PRECOMPRESSION

There is one explosion per revolution. Impelled by the explosion, the piston makes a complete downward and upward stroke, and on returning to the top of its course receives a fesh impulse.

#### FIRST STROKE: DOWNWARDS

#### Explosion-Exhaust-Intake

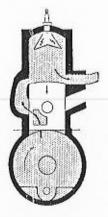
In its downward stroke, the piston compresses in the crankcase the air and petrol mixture drawn in during the preceding stroke. Just before the bottom of the stroke it uncovers the exhaust port, and immediately afterwards the inlet port. The exhaust gases escape and the new fuel mixture enters the cylinder.

#### SECOND STROKE: UPWARDS

#### Induction-Compression

In its upward stroke, the piston closes the exhaust and inlet ports. It compresses the fresh fuel mixture in the cylinder and creates a depression in the crankcase. Towards the top of the stroke, it opens the induction port: the depression in the crankcase draws in the air-fuel mixture from the carburector.

The spark then provides the impulse for a fresh revolution of the engine, and the cycle is repeated.



FIRST STROKE



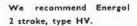
SECOND STROKE

### STARTING

#### Fuel

The tank holds 0.55 gallon. Fill up with a previously prepared mixture containing 6 % of a good quality fluid oil.

During the running in period (for the first 600 miles) the mixture should countain 8% oil.



Never use petrol alone; the motor will be ruined,



#### Chain drive case

Where the drive is effected by a metal chain, push the friction roller aside, against the wheel, and remove the cap of the chaincase orifice. Pour in thick engine oil up to the level of the screw thread. In the case of reinforced rubber chains, which do not require lubricating, the case does not include an oil hole.

#### Tyres

Check that the tyres are properly inflated, especially the rear tyre, Both tyres should be checked at least twice a month.

Tyre pressure	Front	Rear
On ordinary roads:	21.3 (bs./sq. in	28 to 35 lbs./sq. in
On paved roads:	21,3 lbs./sq. in	28 lbs. sq. in

# RUNNING IN

Running in 1: of major importance, and affects the life of the engine, its running and its power.

For the first 250 miles, never run the engine at full power; do not exceed 12 m.p.h. on the level, and avoid heating the engine unduly. On uphilistretches, assist the engine by pedalling, or stop and let it cool down for a few minutes, especially during hot weather.

Do not lorget, to increase the proportion of oil in the fuel throughout the running in period, i.e. for the first 600 miles,

## STARTING

- Put the engine in gear by turning the lever in the direction of the arrow as far as it will go.
- Pull out the fuel tap.
- Get on the cycle, and turn the right hand handlebar grip outwards as far it will go, in order to operate the decompressor.
- 4. Pedal, to start the engine.
- When the engine is running, turn the handlebar grip inwards to cut , the decompressor and open the throttle.
- In cold weather, push down at the same time the lever on the left arm of the handlebar, to facilitate starting.
   When the engine starts, release the air lever (6) and adjust the throttle

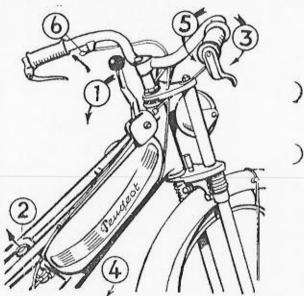
(5) but do not open it completely until the engine is warmed up.

During running in, starting from cold can sometimes be difficult. It is recommended to push the machine a few yards with the fuel tap open and air lever (6) fully open.

# SLOWING DOWN AND STOPPING

To slow down under normal conditions, close the throttle gradually (5); if it is necessary to reduce speed abruptly, use the decompressor (3) and if necessary brake until the machine comes to a standstill.

To use the machine as a bicycle without the engine, push down the lever (1). Never do this while the engine is running; it may result in racing the engine dangerously.



# MAINTENANCE

#### Lubrication

Bearing and moving parts should be lubrificated periodically. Fluid oil should be used for the hubs, pedal cranks, freewheel and control cables; for the chain, sem-fluid oil is recommended.

#### CHECK-UPS

#### Every 250 miles:

- Spark plug: Remove the plug and clean it with a wire brush. Check the width of the gap, which should be about 0.0157°.
- Carburettor: Remove and clean the carburettor with pure petrol.

#### Every 600 miles:

3. Chaincase: Empty the chaincase and fill up with fresh oil-

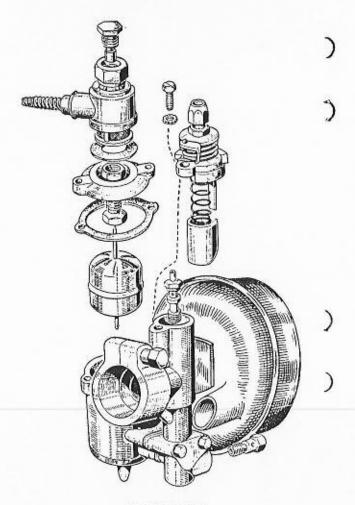
#### Every 1,800 miles:

4. Decarbonizing: Remove the cylinder head and scrape off (preferably with a copper scraper) the deposit of carbon inside. Do the same so the top of the piston. Clean out as well the exhaust ports, removing the tube leading from the cylinder to the exhaust pipe. Take care to place the piston covering the ports, so that deposits will not fall into the compression chamber.

External cleaning of the engine: Each time the engine is cleaned, brush the lower fins (nearest the exhaust pipe).



# TAKING APART THE CARBURETTOR



GURTNER

# THE MACNETO FLYWHEEL

The magneto is a delicate part, and to check its proper functioning demands specialized knowledge.

However, with suitable precautions the owner of the machine can check the spacing of the breaker contacts.

#### I. To check the setting and timing

Remove the spark plug.

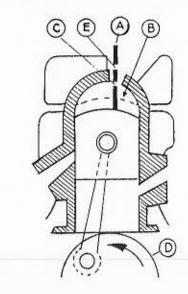
2. Insert a graduated ruler (A) into the cylinder through the plug socket until it touches the highest point of the piston (B). Note the point on the ruler (C).

3. Turning the flywheel (D) in the opposite direction to its normal sense of rotation, lower the piston to the position corresponding to the advance for which the engine is adjusted. Note the corresponding reading on the ruler (E).

4. Check that, with the piston in this position:

(a) The index marks I and 2 on the flywheel coincide;

(b) The breaker points are beginning to separate. If these two conditions are satisfied, the flywheel is properly adjusted.



#### II. Setting and adjusting

If the flywheel is not properly adjusted, loosen it with a spanner or tube wrench, undoing the central nut, and proceed as follows:

Place the piston in the sparking position (minimum 0.098", maximum 0.1187.

Place and fix the flywheel in its correct position, the mark (2) on the rotor being exactly coincident with the index (1) on the stator.

#### III. Maintenance

Every 1,200 miles, check the cleanliness of the magneto; remove the cover, turn the rotor slowly by hand, with the engine declutched and the plug removed.

If the inisde of the magneto contains oil-impregnated dust, remove the rotor, clean out the dirt and look for the cause of its presence there. A fresh setting of the rotor will then be necessary; if not absolutely sure of being able to manage this, let a specialized repair man do the job.

Do not adjust the breaker points so long as the gap between them is less than 0,0236". In general the magneto, and especially the breaker should not be interfered with if it is running properly.

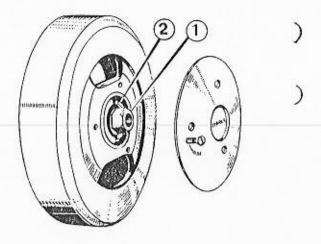
#### IV. Lubrification

The breaker cam is lubrificated by means of a felt pad soaked in grease. This is fitted when the machine is assembled at the factory, and is sufficient to ensure adequate lubrication for a very long period. If the pad seems to be dry, it can be re-impregnated by kneading it between the fingers with a grease of high consistency. Do not use oil.

#### DISMOUNTING THE MOREL FLYWHEEL

Loosen the nut (1), holding the rotor still and without touching the locknut (2) pull the rotor out. It should come out easily.

To remove the stator, simply disconnect the leads and undo the two screws at the ends of the coils.



# ADJUSTING THE BREAKER CONTACTS

#### MOREL FLYWHEEL

Without moving the rotor, loosen the screw (3) and insert a screwdriver in the orifice (4) to separate the breaker contacts slightly. Then tighten the screw (3).

#### A.B.G. FLYWHEEL

Loosen the screw (3) adjust the cam (4) and tighten the screw (3).

(A cigarette paper inserted between the contacts will indicate their separation).

The important factor is the moment of separation of the contacts points. This should be at the same moment as the mark (2) coincides with the index (1).

When the setting is correct the maximum opening of the contacts is approximately 0.0157°. This opening may, however, vary between 0.0078° and 0.0236°.

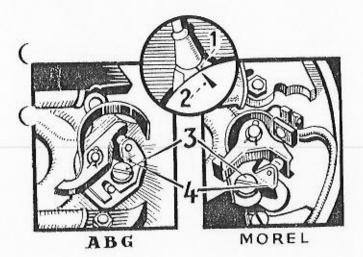
VERY IMPORTANT: Never adjust the width of the gap between the contacts; the proper functioning of the magneto depends not on the width of the gap, but on the opening of the contacts at the precise moment when he marks (1) and (2) coincide.

#### MOREL MAGNETO COIL

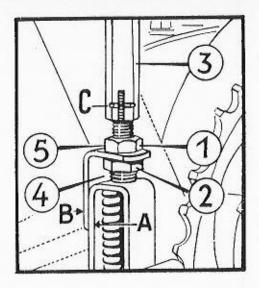
The Morel magneto is connected to a high tension coil which is fixed outside the magneto, under the hood.

The knurled nut on this coil must never be loosened, for this component is guaranteed.

Two sheathed leads connect it with the magneto; the red lead should be attached to the terminal R, the black lead to the terminal N.



## FRICTION ROLLER ADJUSTMENT



First check the pressure of the rear tyre (this should be between 28 and 35 lbs./sq. inch.).

Remove the right hand protective casing.

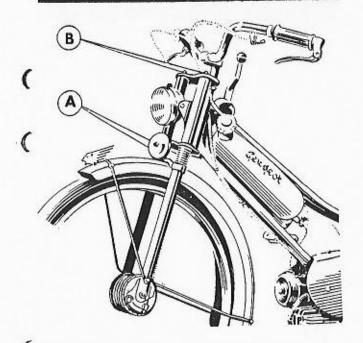
- I and 2. Loosen the locknut (1) and the nut (2).
- Screw the spacer, in the case of Birma De Luxe and Super De Luxe Models, or the nut in the case of the Birma Standard Model. The normal recessing is 0.275".
- 4. Bring the nut (2) to about 0.12" above the yoke (A).
- Lock the locknut (1), pressing the angle piece (B) against the yoke (A).
   The pin (C) must not be removed unless it is desired to take the assembly apart completely.

# DECOMPRESSOR ADJUSTMENT

CASE ONE: If the engine does not stop when the decompressor is lifted. Tighteen the cable, using the tightener situated above the decompressor.

CASE TWO: There is no decompression when the twist grip is turned, Tighten the cable, using the tightener situated on the control case.

# THE TELESCOPIC FRONT FORK



The telescopic front fork, with spiral spring suspension, cannot come out of adjustment under normal conditions.

#### Maintenance

Maintenance is limited to lubrification of the sliding parts.

Two oilers are fitted for this purpose on the strut (A) joining the two tubes.

Every 300 miles, lubricate in moderation with the grease gun, using a semi-fluid oil.

In case of trouble, consult one of our Agents.

#### Taking apart the front fork

Only in case of accident is it necessary to remove or take apart the front fork. Under normal conditions the fork requires no internal maintenance apart from the lubrication described above.

If removal of the fork is necessary, undo the two nuts (8); this will free the mobile parts attached to the wheel. The internal parts will then be accessible.

## DISCONNECTING THE CONTROLS

#### The decompressor

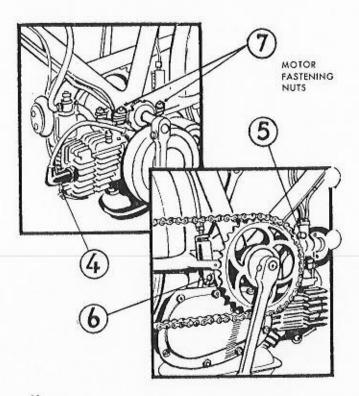
Loosen the locknut securing the cable tensioner.
Press on the small control lever of the valve, disengage the cable bushing
and take out the decompressor control.

#### The carburettor

Undo the screw holding the clip.
 Take out the carburettor and its control towards the front of the engine.

#### The toggle lever mechanism

Withdraw the pin from the yoke at the end of the rod stem. Remove the anchor pin of the yoke.



## RUNNING REPAIRS

In case of a puncture, disengage the engine. The wheels, both front and rear, are removable as easily as those of an ordinary pedal cycle, if the engine dies, or fails to gatart, make the following theck-ups:

#### I. The spark plug

Make sure that the spark plug lead is making proper contact at both ends; i.e. at the magneto terminal and at the plug terminal. Check that the insulation covering the lead is not worn away near a metal part of the body, thereby causing the ignition circuit to leak to the body of the machine. If the lead is in good condition, remove the plug. If the latter is damp or dirty, wipe it or clean it with a wire bruch, especially between the contacts.

#### 2. The carburettor

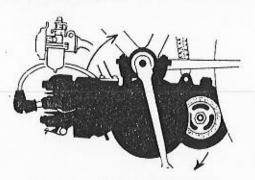
If the Ignition appears to be in good order, check that there is fuel in the tank and that the fuel tap is open.

If the fuel is not arriving in the carburettor bowl, close the fuel tap and unscrew the fuel pipe. When the tap is again opened, the fuel should flow: if it does not, clean the pipe and if necessary the tap as well. Clean out the air inlet in the fuel tank cap. if it is blocked.

If the fuel is arriving at the carburector bowl, misfiring, engine failure or difficulty in starting may be due to the jet nozzle being obstructed by a foreign body or a drop of water. In this case unscrew the jet nozzle and blow through it. Never introduce a metal wire; this can cause damage to the nozzle.

The carburettor is accessible without removing the protective housings. (See page 12 for details of removing the carburettor).

### THE FRICTION ROLLER



The tension of the friction roller is adjusted at the factory. Should this adjustment be accidentally modified, it should be attended to by one of our local agents.

### CONDITIONS OF GUARANTEE

Our machines are sold with a 6 months guarantee against all faults in construction resulting from defects in materials or in manufacture. This guarantee is expressly limited to the free repair or replacement of parts found to be defective; no indemnity whatever can be claimed for the immobilizing of the machine or for accidents to persons or damage to objects or property. Costs of packing and transportation in both directions, taking apart and rassembling, testing, etc., are borne by the customer.

We accept no responsibility for modifications made to our machines by others.

Our machines carry a number on the crankcase, and we do not guarantee any machine on which this number has been effaced or defaced, it being considered that any attempt at modification or effacement is of fraudulent interne.

We advise customers purchasing our machines to obtain a certificate of guarantee from the dealer.

This certificate must bear the same registration number as that borne by the machine, and must contain no additions or deletions.

In Metropolitan France the certificate of guarantee of Bima machines entitles the owner to a free overhaul by the dealer.

This overhaul, which must be effected between the first 300 and 430 miles, is moreover compulsory. If this condition is not complied with, the owner forfaits his entitlement to the guarantee, as laid down in our general conditions of sale.

We guarantee only our new machines sold by our official Agents: our machines sold by any other dealers can be sold only as second hand machines. In respect of tyres and accessories, our guarantee is limited to that of the manufacturer.

Owners of our machines are advised to entrust maintenance and repairs to the Agents of our firm. Owners should insist on the invoices bearing the guarantee that parts used in repairs are of our own manufacture, in order to avoid the substitution of numerous imitations.

#### SPARE PARTS

Always insist on spare parts of our own manufacture. This is the only way to be sure of reliable replacements and repairs.

IMPORTANT: When ordering spare parts and replacements, always quote

# THE TYPE OF MACHINE THE NUMBER OF THE ENGINE

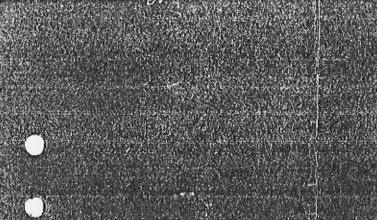
These important references will help to avoid confusion and reduce delays in delivery.

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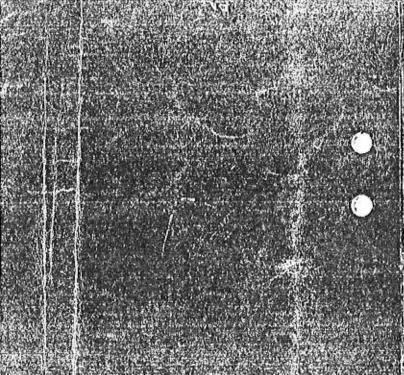
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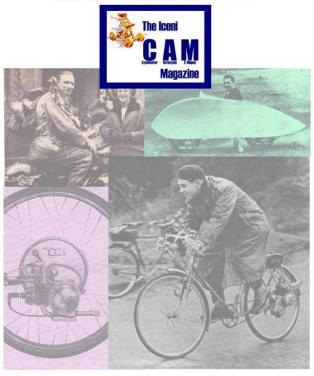








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