# MAINTENANCE INSTRUCTIONS



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PEUGEOT/

## Contents

	rages
Specification	2
Carburettor	8
Practical hints for breakdowns	18 à 20
Coupler	13
Decarbonizing	15
Dismantling the carburettor	9
Dismantling the telescopic fork	12
Removing the silencer	11
Removing the rear wheel	10
Starting gear	13
Lubrication	14
Instructions before starting off	3
Starting off	4-5
Riding by pedalling	10
Engine spare parts	17
Decelaration and stopping	5
Idling adjustment	9
Adjusting the driving chain tension	10
Adjusting the belt tension	11
Refitting the cylinder head	12
Running-in	3
Variable driving	12
Flywheel Magneto	6-7

### **Specification**

#### 2- stroke engine with crankcase precompression

Bore - Stroke 40 mm × 39 mm

Capacity 49 cc

Compression ratio: 6,4 to 1

Ignition: by flywheel magneto

Ignition advance: 3 mm

Primary transmission: by V belt

Rear wheel drive: by chain

Fuel consumption: 155 miles per gallon (1,8 litres per 100 km)

Tank capacity: 1,1 gallon (5 litres)

Approximate total weight: 95 lbs - approx. (46 kg)

Speed on the level: 30 m; p.h. (50 km p.h.)

Front and rear tyres :  $23" \times 2"$ 

LIGHTING is assured by the flywheel magneto

FRONT BULB: 6 volts, I ampere

REAR BULB: 12 volts, 0.5 ampere

### Instructions before starting off

FUEL - Put a previouly prepared mixture of petrol and 6 % of good quality fluid oil in the tank.

We recommand:

ENERGOL 2-Stroke, type HV.

While running in (about 600 miles: 1.000 km) the mixture should contain 8  $^{\circ}_{0}$  of oil.

Never use pure petrol as the engine would not be lubricated and would be put out of action.

TYRES: Check the tyre pressure twice a month
Front tyre: 21 to 22 lbs/q.s. in.
(1,5 kg/sq.cm).
Rear tyre: 28 to 29 lbs/s.q. in.
(2 kg/sq.cm)



### Running in

Running-in has a vital effect on the satisfactory operation, and life of the engine.

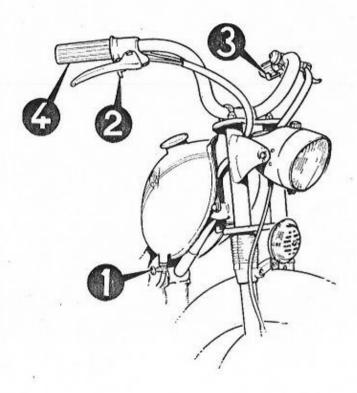
Do not push the engine to the limit for the first 300 miles or so. Do not exceed a speed of 25 m  $\rm p\ h.$ 

Avoid overheating the engine. To do this, assist by pedalling on hills or alloy the engine to cool off for a few minutes, while at rest, especially in hot weather.

Running-in must be continued for about 500 miles.

From 300 to 600 mps do not exceed average engine speeds, that is :  $28 \ \text{mps}$ .

### Starting off



- Turn on the petrol by pulling the knob at the tap located at the base of the tank (1).
- II. Decompress (2)
- III. Mount the moped pedal and pick up a little speed.
- IV. As soon as the engine is running, release the decompressor trigger and open out the throttle gradually by operating the twist grip. (4)

In cold weather. - Also press on the air lever (3) and half open the throttle (4). After running for a short time release the air lever.

Adjust the throttle, but do not open fully until the engine is warmed up.

### **Decelaration and stopping**

Normal decelaration is obtained by gradually closing the throttle.

If braking must be rapid, close the throttle down and brake.

When stopped, the engine continues to run to its automatic clutching.

To start off again, just reopen up the throttle; on hills help by pedalling.

To stop the engine, decompress.

### The flywheel magneto

B . LOCKING SCREW

DISLACKEN THE SCREW B

NINSERT A SCREWDRIVER

R AND ADJUST.

(S) RETIGHTEN THE SCREW B

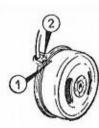
BETWEEN THE NOTCHES

The flywheel magneto is a delicate device and calls for expert knowledge, We therefore advise our customers to act with caution. However:

1° In the event of breakdown when a check of the sparking plug and the wire is unavailing.

2° Every 1.850 to 1.900 miles (3.000 km) in order to obtain maximum efficiency of the flywheel magneto, riders may proceed as follows.

#### CHECKING AND ADJUSTING THE CONTACT BREAKER



ADJUSTING NOTCH

By turning the flywheel in the direction of running, bring the reference mark on the rotor (1) into coincidence with the reference mark on the stator (2) Make sure that in this position the contact points are beginning to open. A cigarette paper inserted between the points will indicate when opening commences.

If the above condition is not fulfilled, loosen the locking screw of the contact support, adjust by means of the adjusting notches and retighten the locking screw.

#### VERY IMPORTANT



When the setting is correct the maximum opening of the contact points is about 0,0157" (4.10 mm).

R. Adjustment notch -However this interval may vary between 0.1108" and 0.0196" (3/10 to 5/10 mm) without any disavantage.

Never carry out adjustment according to the spacing of the contact points. Since proper functionning of the flywheel depends not on the spacing of the later, but on the precise opening of the contacts at the point of separation which is indicated by the correspondence of the reference marks (of stator and rotor).

### CHECKING THE IGNITION POINT AND THE SETTING OF THE FLYWHEEL

- 1. Remove the sparking plug.
- Insert a graduated rule into the cylinder through the plug orifice and find the upper dead centre by turning the flywheel in the direction of running note the position of the upper dead centre on the rule.
- Turn the flywheel slowly in the direction opposite to its normal direction of rotation to lower the piston by the height corresponding to the specified advance, i.e. 0.118 in. (3 mm). Use a second reference mark on the graduated rule for this purpose.
- 4. Make sure that in this position of the piston :
  - a) the reference marks on the rotor and the stator are opposite each other.
  - b) the breaker contact points are beginning to open. If these two conditions are satisfied the flywheel is properly set. If not, proceed as follows:
- Release the rotor from its spindle as follows:
   First case: The rotor comprises an extraction ring.
   It is sufficient to undo the rotor locking nut.

Second case: The rotor does not comprise an extraction ring. Unscrew the locking nut and release the rotor with the aid of the flywheel extractor.

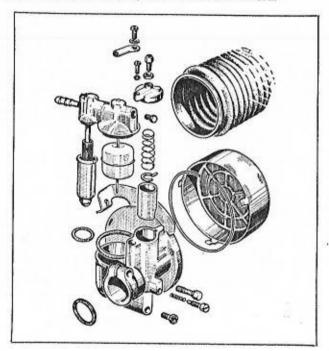
- Turn the rotor to bring the reference marks on the rotor and the stator opposite each other, taking care not to alter the position of the piston defined in paragraph 3.
- Retighten the rotor, making sure that it does not turn on its spindle as it is clamped.
- 8. Read just the contact-breaker again.

**Lubrication**: Every 1.850 to 1.900 miles (3.000 km), put 2 or 3 drops of oil, not more, on the felt lubricating pad of the breaker cam.

#### The carburettor

#### WARNING!

Air is admitted to the carburettor under the saddle through the frame and saddle tubes. See that the opening of this tube is always clear and that, when under load, the saddle top does not obstruct the air duct.



In case of the jet being blocked, also clean the decanting chamber and chamber's tube by unscrewing the provided stopper and blowing into the tuber.

Dismantle and clean the carburettor with pure petrol.

#### Dismantling the carburettor

- Remove the cowling on the left.
- Remove the rubber air-intake bush.
- Unscrew the collar clamping screw.
- Disengage the carburettor and its control towards the rear of the engine.
- To remove the air filter, withdraw the seal and draw the cartridge into the axis of the carburettor.
- To refit the filter, insert it quite straight and see that its base rests quite flat on the carburettor.
- Replace the seal on the 3 claws.
- Replace the rubber bush.
- Dismantling of the bowl: unscrew it by means of 6 sides located on its base.

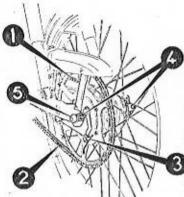
### **Idling** adjustment

This adjustment is important. It enables the engine to be kept running while the vehicle is at a standstill, so that it can easily start off again merely by operating the throttle grip. This adjustment is effected by means of a screw on the side of the carburettor.

- to) Withdraw the cowlings.
- 2°) Screw the adjusting screw right home.
- 3°) Start the engine with machine on stand.
- 4°) When the engine is warm, slowly unscrew the adjusting screw so as to reduce the running speed as much as possible, the rear wheel being locked by the brake.

When the speed is low enough replace the machine on its wheels, and get on to the saddle. The engine should not stall and there should be no difficulty in holding back the machine which may show a slight tendency to move off.

### Removing the rear wheel

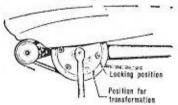


- Throw the starting chain
   (I) towards the outside, by raising the chain taightener with the hand.
- Unfasten the driving chain (2)
- Disconnect the brake control by pushing the lever (3) forward and disengage the cable stop without unscrewing it.
- Slacken the nuts (5) and pull the wheel back until it is disengaged.

### Adjusting the driving chain tension

- Loosen the two spindle nuts.
- Rotate the nuts of the two chain taighteners by the same number of turns in each case until the chain is stretched. Do not overdo this, the wheel must turn freely, whatever the position of the rear fork, in balance wheel suspension vehicles. Tighten the spindle nuts and then lock the nuts of the chain taighteners.

### Riding by pedalling



It is possible to ride by pedalling without driving the engine. To do this, the screw locking the pulley with the chain wheel must be unscrewed and withdrawn. Locking position

Position for transformation

We recommend to customers who make a frequent and prolonged use of their machine, engine unclutched, to pay a particular attention to pulley lubrication, which will be lubricated more often if necessary.

# Removing and cleaning the silencer

- Unscrew the rear nut
- Withdraw the end to check the cleanliness of the escape holes and clean them if necessary.
- It is also possible to withdraw the cylindric part; for this, unscrew the lower nut of the collar.

#### VERY IMPORTANT

Do not make additional holes since the working of the engine might be seriously jeopardized.

Do not force while reassembling, since the inner cup and the rear end might be jeopardized.

### Adjusting the belt tension



- Remove the cowlings.
- Loosen the engine fixing bolts.
- Stretch the belt by pivoting the engine around the fixing bolt of the cylinder-head lugs, by means of a lever in the direction in which it moves away from the crank-gear casing. Also press the engine to the right and check the alignment of the belt with the pulleys. Tighten the bolts.

#### CHECKING THE ADJUSTMENT OF THE TENSION

Adjustment is normal when the setting of the outer surface of the belt is 2 mm, below the outer diameter of the receiving pulley.

In case of stipping, adjust again to maximum setting of 3 mm. Beyond that, it is preferable to change the belt.

### Dismantling the telescopic fork

Dismantling the fork is justified only in case of accident.

In normal use, the fork does not require any interval maintenance apart from lubrication.

In case of need dismantling is effected by unscrewing the two nuts located at the top which will release the movable fixed to the wheel,

### Reffiting the cylinder head

#### WARNING

- Never tighten the cylinder head nuts when the engine is hot.
  - They should be tightened in lozenge and moderately.

### The variator coupler

Is composed with two expanding pulleys:

- The driving pulley (smaller pulley)
- The receiving pulley (larger pulley)

In The driving pulley is part of the starting coupler combination.

Its lubrication is assured with the lubrication of the engine (see table page 14). It should always be kept clean. Every 6.000 miles, it will be necessary to clean the small columns, by means of a brush soaked with petrol. This work can be done without dismantling after setting down of the belt.

2° The receiver pulley does not require any other maintenance than lubrication. Avoid excesses in grease it might deteriorate the belt.

### Starting off engagement device

Is composed of a plate integral with the variator driving pulley, including 2 mobile runners which, under centrifugal power action drive a drum carried by the coupling case, itself integral with the crank-shaft.

When the pedalling speed reaches about 5 mps, the starting engagement device begins working and starts the engine.

To keep this working part in good order:

- 1° Be careful not to introduce oil or grease in drums it will cause the clutch to slip.
- 2° In case of stripping, do not misshap the runner springs which are perfectly calibrated when leaving the works.

### The coupling

This automatic clutch does not require any maintenance.

However it is advisable to know the following:

- Io It never desengages completely and this exhibits a slight tendency to start the machine off. This tendency is all the slighter, the lower the idling speed of the engine.
- 2° In no case is the noise which the clutch may make (a slight whistling produced by the turningover of the powder) a sign of wear.
- 3° This clutch which acts very gradually permits slipping up to about 15 mph. (25 km h) It is therefore normal for this speed to be reached before slipping ceases. On the other hand, on decelerating the slipping is slow in appearing and occurs only at about 10 or 15 mph. (15 to 20 km h) on hills and, when stopped, only if the throttle is closed.

#### Lubrication

<b>about 600 miles</b> (1.000 km)	Free wheel Driving chains and triggers	BP Energol Motor oil SAE 30
	Telescopic fork Driving pulley	
about 1.200 miles (2.000 km)	Variator-coupling	ВР
about 3.000 miles (5.000 km)	Upper and lower stearing gear bearings - Pedal system Front and rear hubs :	energrease 12 multi-purpose

**WARNING**: Be careful not to introduce oil or grease in brake drums.

A careful lubrication will increase the life of your vehicle.

#### CHECKS:

Every 600 miles or so (1.000 km).

**Sparking-plug.** - Remove the plug and clean it with a wire brush. Check the gap at the electrodes which should be kept about 0.016 in. (4/10 mm).

In the event of the plug being defective, we advise that it be replaced by a Marchal 35 plug.

Carburettor. - Remove and clean the carburettor with pure petrol

#### Decarbonizing

The rapidity with which the engine becomes carbonized depends on the quality of the oil used for the mixture.

With "ENERGOL" 2-Stroke oil type H.V. the engine can cover 6.000 miles (10.000 km) without requiring decarbonizing. With certain oil carbonizing may take place more rapidly.

#### WARNING :

Poor fluid tightness of the decompressor valves causes the engine to become overheated and considerably increases the carbon deposit. Make sure that the control does not bear on the valve when decompression is not being carried out.

As long as the engine is running properly do not worry about the carbon deposit.

If the performance of the engine falls off, if it becomes overheated, or if it runs with a 4 stroke action, the silencer and its end - part must be removed and the condition of the cylinder ports and of the escape holes of the silencer, which the carbon deposit may partially obstruct, must be checked.

It will then be sufficient to clear the carbon deposit.

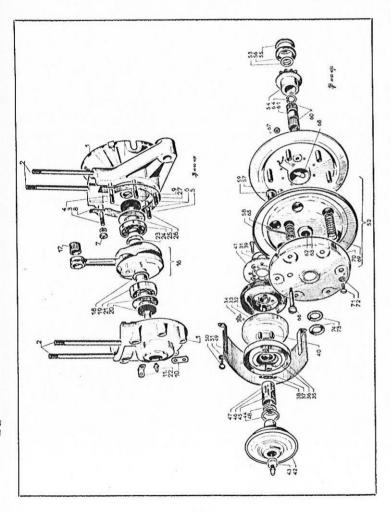
Consequently, complete decarbonizing will include :

I° Cleaning of the Cylinder-head, the top of the piston and possibly, the grooves of the piston in the case of replacement of defective piston rings by new ones.

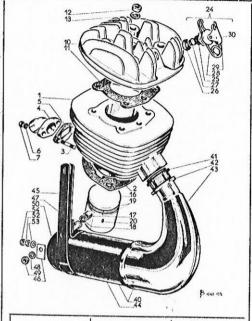
2° Grinding in of the decompressor valve and seat. If the valve appears somewhat worn do not hesitate to change it.

## IMPORTANT. - Never use a scraper or other tool likely to scratch aluminium.

The replacement of piston rings is difficult owing to the risks of breakage and deformation. Moreover since the manner in chich decarbonizing is carried out is of very great importance as regards to the subsequent behaviour of the engine, we advise customers to entrust this operation to one of our agencies.



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<b>.</b>	1	Piston	Exhaust		
Cylinder			40	38.594	
36.990	16	36.120 E	41	36.430	
35.749	17	27.104	42	36,429	
G5 13-10	18	22.309	43	37.636	
36.992	19	38.315	44	37.587	
	20	V 190	45	37.608	
36.226			46	37.608 A	
W 5	De	compressor	47	H 6-20	
HU 5	24	32.136	48	37.773	
	25	31.474	49	HU 6	
inder Head	26	31.152	50	37 578 E	
37.885	27	32.133			
36.123	28	32.134	52	37.594	
32.132	29			HU 6	
		32.132	53	L6	
W 7	30	32.135	54	38.644	

#### Practical advices for putting in working order

1° Cold or hot, the engine does not start

Reasons	Defects .	Remedies		
No ignition or defective ignition.	Sooted spark plug short circuit spark n the plug.     The contact breaker remains always open, the rotating need being seized on shaft.	Clean the plug or replace it by a clean one (gap at the electrodes = 0.016 in = 4/10 mm.)  Dismantle and clean shaft with fine emery cloth, reassemble and lubricate with graphite-oil. No oil excess which might soil the contacts.		
Petrol does not come to the carburettor and the tip.	Clogged tube.     Clogged tap or carburet- tor filter.     Clogged air-hole of tank plug.     Clogged tip.	Check and clean if necessary.  With compressed air or tyre pump, declog. Do not us metal wire which might modify the tip flow.		
Petrol comes pro- perly but cold star- ting is difficult.	l Bad setting of carbu- rettor. 2 Additional air supply.	Check and set (see p. 11). Check the clamping of intake pipe on cylinder. Check the clamping of carburettor on pipe.		
Too much petrol flooded motor.	The carburettor float spin- dle blocked and does not shut.	Check on the spindle shuts and clean if it necessary.		

#### 2° The engine starts up all right but running on road is irregular.

I Flywheel out of order, contacts do not open at marks.	Re-adjust (P. 9).
2 Worn contacts; the opening is too great.	Reduce the reed heel, touch up contacts, or, preferably change breaker.
<ol> <li>Worn spark plug clogged electrodes.</li> </ol>	Clean or change spark plug if necessary.
	contacts do not open at marks.  2 Worn contacts; the opening is too great.  3 Worn spark plug

Causes	Defects	Remedies		
Engine runs cor- rectly at middle speed but bad wor- king at high speed.	1 Too little petrol flow. cock or carburettor filter partially clogged. 2 Clogged air filter. 3 Partially clogged air shutter.	Check cock flow (1,75 pint 5 min.) Check carburettor flow. Clean it. Loosen air control shutter.		
Lack of power of the engine.	Belt slipping.     Bad setting of flywheel. (lack of pre-ignition).     Out of order carburettor.	Tighten the belt. Check setting (see P.7). Check wheel is well out of emulsion chamber. If not so, set flexible control.		
Lack of power possibly caused by ignition troubles.	l Defective spark-plug. 2 Leak at condenser, hot about all.	Clean or change plug. Change the condenser.		
Engine works at 4 strokes.	1 Too large jet. 2 Lack of air (clogged filter). 3 Too tight air control. 4 Passenger on saddle. covers saddle intake. 5 Too much oil in Petrol.	Change jet. Clean air-filter. Loosen air-control. Raise saddle.  Defuel and refuel with correct mixture. 8 % oil when running in. 6 % oil after running in.		

#### **CLUTCH FAILURES**

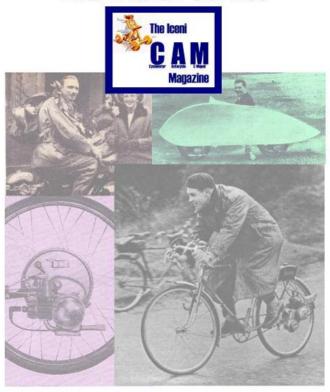
During starting the clutch slips. Too long clutch time. During starting clutch does not work.	Grease or oil in drum and on linings.     Worn linings.     Springs broken or distorted.	Dismantle and clean with pure petrol or trichlorethylene change linings. Change springs and set two Peugeot springs. Never modify them, because clutch will not work.
		Important Mark hoocking points on jaws.

#### VARIATOR FAILURES

Causes	Defects	Remedies			
Low performances on hills or level.	If the engine power is correct:				
	I Lateral slackening insuf- ficient or rear pulley.	l Readjust pedal gear with lateral slackering from 4 to 6 mm/i0mm.			
	2 Driving chain too tight.	2 It should have a camber of about 5 mm.			
	3 The pulley mobile cheek (front) does not slide freely.	3 Lubricate with greaser (hand- pump goes are sufficient).			
The engine races but the speed does not increase.	l Belt insufficiently. stretched.	l Re-adjust (see page 11).			
merease.	2 Belt greasy.	2 Clean the belt.			
	3 Grease entered the variator Box.	3 With pure perol clean the pearls, inside of the box and nylon deflector.			
Receiving pulley ma-	a) Siren noise,				
king noise.	l Lack of lubrication-bj- metal washer worn.	I Lubricate and if needed change the bi-metal washer. Look at pedal gear adjustment.			
	Deterioration of rubber washers on the chain pinion.	2 Replace rubber washers.			
	b) Slapping noise.				
	l Nylon ring worn out.	l Readjust pedal gear.			
*	2 Too much lateral sla- ckening on the rear pulley.	2 Readjust pedal gear as above.			

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