



**MOTOR - CYCLE**

**175**

**giubileo extra**

**Use and Maintenance Instructions**

**"175 super model"**



## CAUTION

The observance of the rules herein contained, enables the « 175 » motor-cycle to be used under the best conditions, avoiding trouble caused by carelessness or bad upkeep.

For periodical check-ups and overhauls, it is advisable to apply exclusively to our Licensees, or authorized mechanical workshops, who guarantee a rational, speedy and economical job.

Demand only original Gilera spare parts.

**PIRELLI Tyres**

**AGIP F.1  
Oil**

**Supercortemaggiore  
Petrol**

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# INDEX

## « 175 » Motor-cycle

Lay-out of controls . . . . .	Page 8
Identifying data . . . . .	» 10
General characteristics . . . . .	» 12
Description . . . . .	» 14
Driving instructions . . . . .	» 24
Maintenance rules : . . . . .	» 29
Fault finding hints . . . . .	»» 41

## « 175 Super Model »

Lay-out of controls . . . . .	Page 47
Identifying data . . . . .	» 47
General characteristics . . . . .	» 47
Description . . . . .	» 48
Driving instructions . . . . .	» 51
Maintenance rules . . . . .	» 51
Fault finding hints . . . . .	» 52
Guarantee . . . . .	» 52
Liability . . . . .	» 53





Fig. 1 - «175 JUBILEE EXTRA» MOTOR - CYCLE (right side)



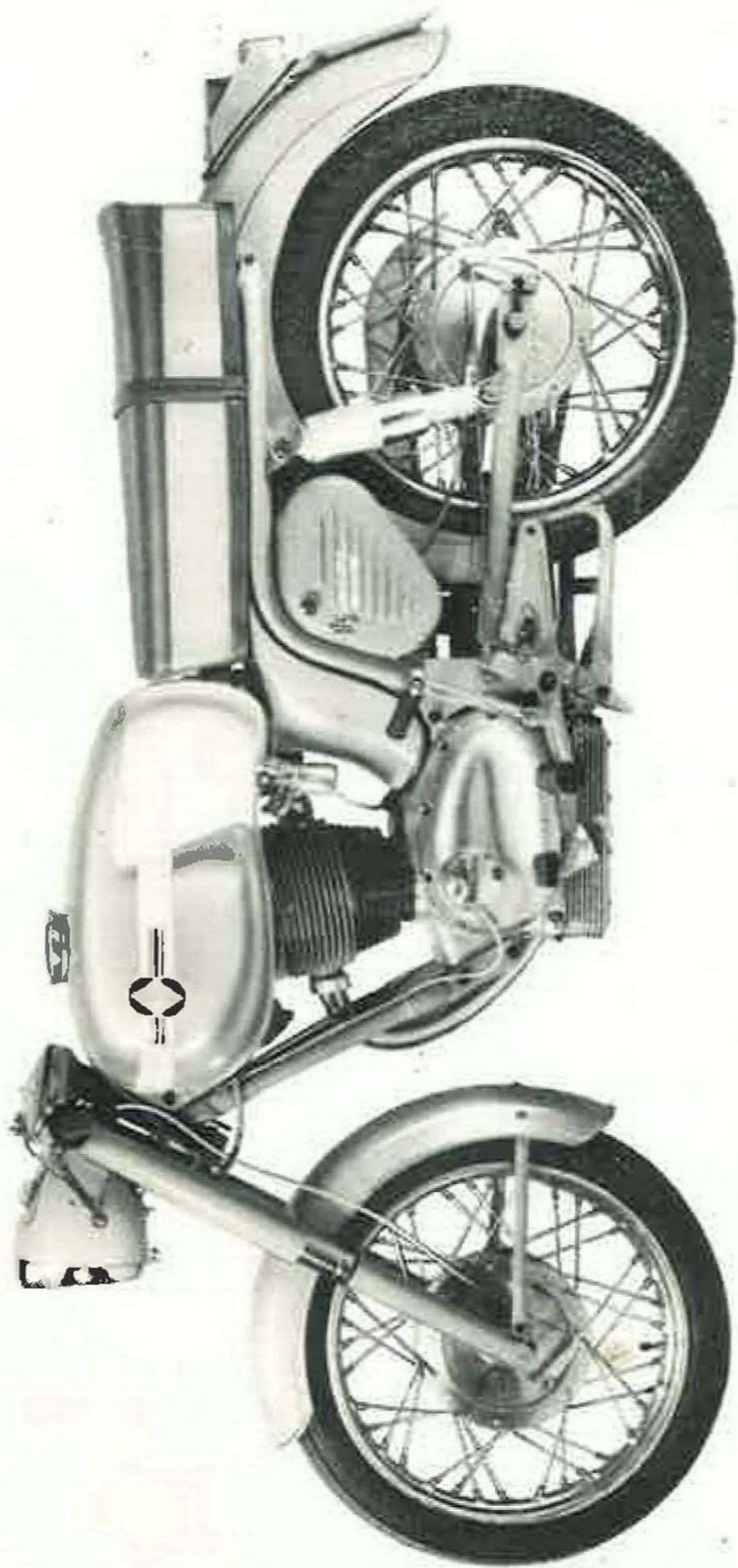


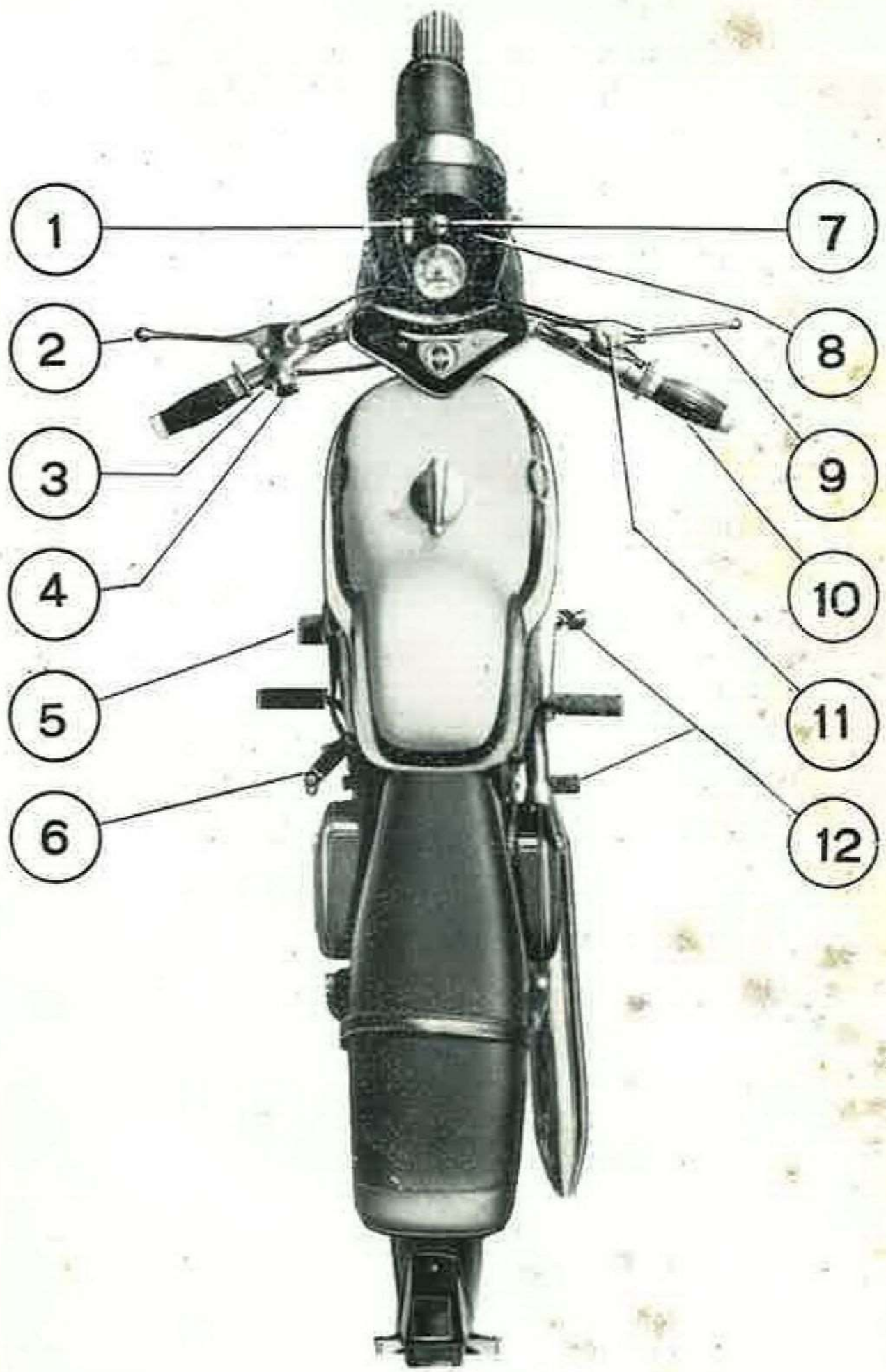
Fig. 2 - «175 JUBILEE EXTRA» MOTOR - CYCLE (left side)

## LAY-OUT OF CONTROLS

(See Fig. 3)

1. Ignition light
2. Clutch control
3. Dipswitch
4. Horn button
5. Rear brake pedal
6. Kickstarter
7. Ignition Key
8. Parking light
9. Front brake control
10. Throttle control
11. Air control
12. Footchange control





3 - 175 JUBILEE EXTRA» MOTOR - CYCLE (Seen from above)

## IDENTIFYING DATA

(See Fig. 4)

Every motor-cycle has an identification number, stamped both on frame and engine, in the undermentioned positions:

### **For the frame:**

Below the saddle, on the rear right-hand side.

### **For the engine:**

At the front of the base of the right hand crankcase half.

This number is for the legal identification of the motor-cycle, and is quoted on the motor-cycle's certificate of origin.

**It must be always quoted in requests for spare parts.**



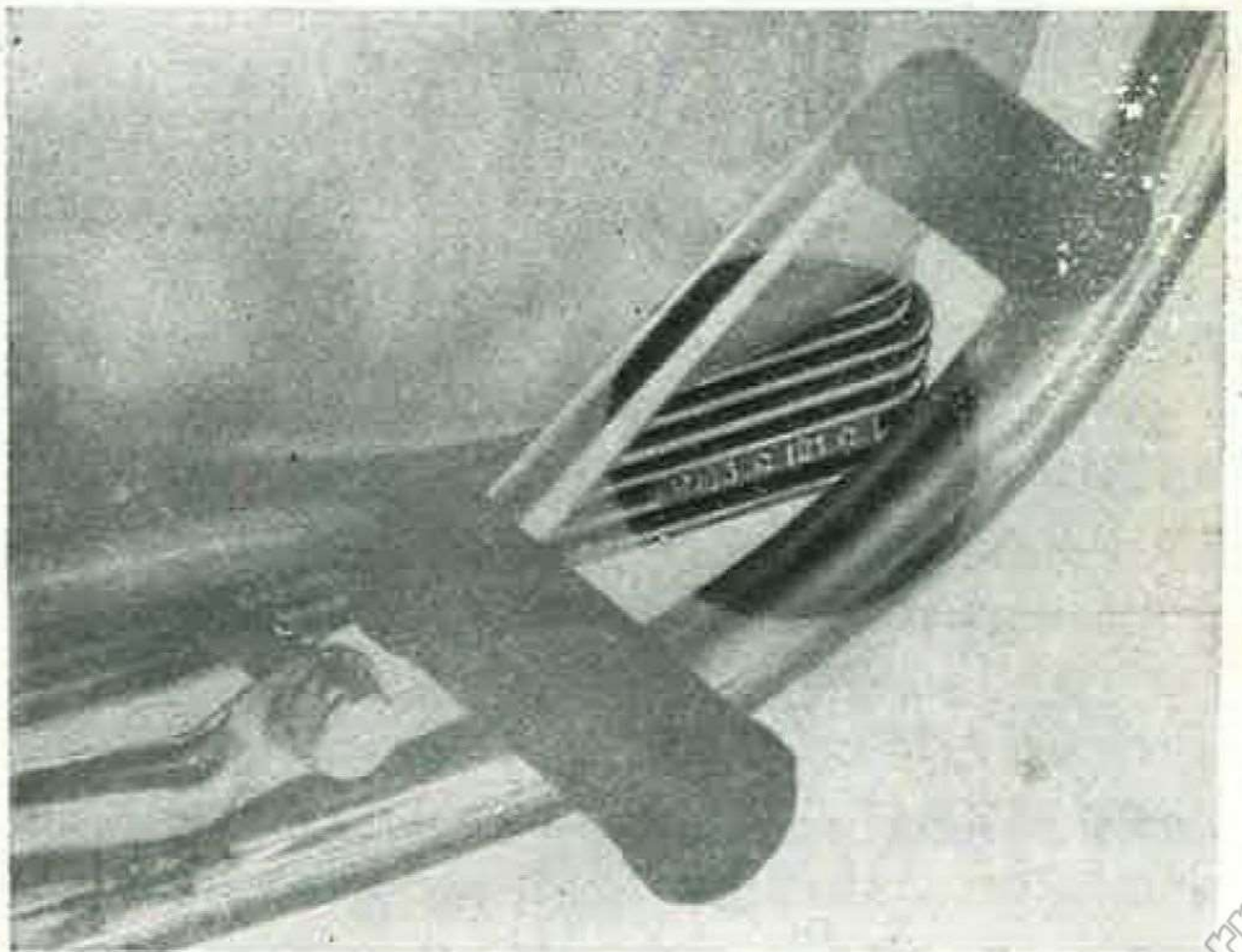


Fig. 4

# GENERAL CHARACTERISTICS

## ENGINE

Single-cylinder, four stroke, overhead valve and rocker operated.

Battery ignition, with automatic timing advance, coil and contact breaker.

Petrol operated.

Forced lubrication.

Air-cooled.

4-Speed gearbox with foot-change.

Multi-plate clutch, in oil.

Primary helical-gear transmission.

Secondary chain transmission.

## CHASSIS

Cold drawn steel-tube frame.

Telescopic front suspension, with hydraulic shock-absorbers incorporated.

Pivoted fork rear suspension, with hydraulic shock-absorbers.

Tangent spoke wheels, with internal expanding brakes.



Lighting and direction-indicating equipment, with 3-light headlamp, rear lamp with number-plate light and stop-light, electric horn.

## PERFORMANCES

Maximum speed : About 110 kms. (about 68 miles) per hour.

Fuel consumption : 2.5 litres per 100 kms. (according to C.U.N.A. standards).

Maximum gradient : 40 %.

Fuel-tank range : About 600 kms.

The above performances are based on the motor-cycle, with the rider only, travelling on good roads.

## DIMENSIONS AND WEIGHTS

Wheelbase . . . . .	1.28 metres	(abt. 4'2")
Maximum length . . . . .	1.95	» (abt. 6'4")
Maximum width . . . . .	0.61	» (abt. 2'0")
Maximum height . . . . .	0.92	» (abt. 3'0")
Ground clearance . . . . .	0,110	» (abt. 4 1/4")
Weight, without fuel . . . . .	112	kgs. (abt. 247 lbs.)

## PETROL AND OIL CAPACITIES

Petrol-tank : About 15 litres (about 3 1/4 gallons).

Oil-tank : 1.5 kgs. (about 3 1/2 lbs.).

# DESCRIPTION

## ENGINE

« 175 » model, 4-stroke

Number of cylinders . . . . .	1
Bore . . . . .	60 mm. (abt. 2 ¼")
Stroke . . . . .	61 mm. (abt. 2 ¼")
Cubic capacity . . . . .	172.5 cubic centimetres
Compression ratio . . . . .	7.5
Maximum power . . . . .	Abt. 10 HP
Maximum power rate . . . . .	7000 r.p.m.
Maximum output rate . . . . .	4000 r.p.m.

Valve diameters : { Inlet valve, 24 mm. (0.9448")  
                          { Exhaust valve, 22.5 mm. (0.9055")

Cylinder : cast iron.

Cylinder head : aluminium alloy, with cast iron valve seats.

### Distribution (See Fig. 5)

Push-rod and rocker driven overhead valves.

The distributing axle drives the connecting rods by means of tappets.

Inlet :

Start : 34° before top dead centre.

End : 66° after bottom dead centre.

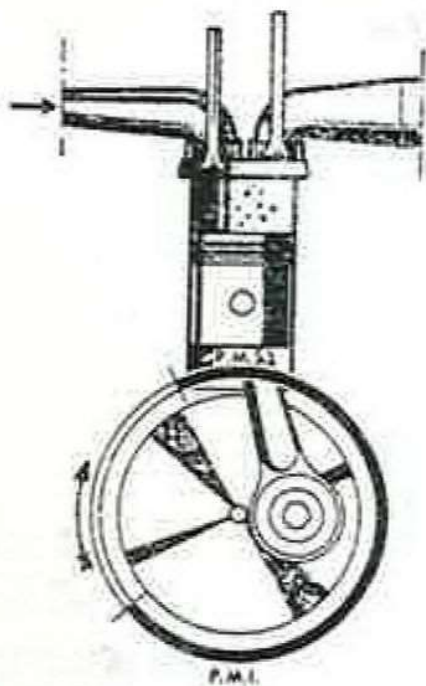
Exhaust:

Start : 66° before top dead centre

End : 34° after bottom dead centre.

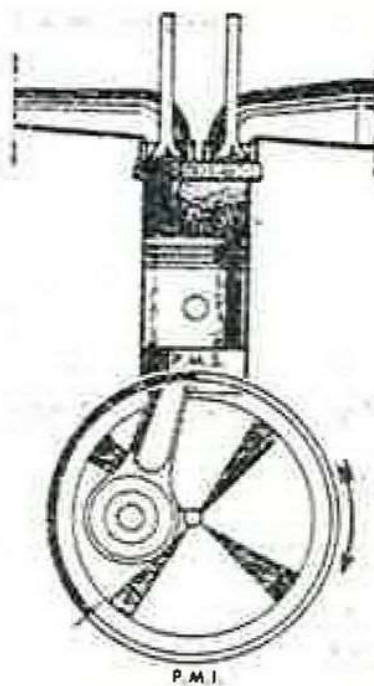


## DISTRIBUTION DIAGRAM



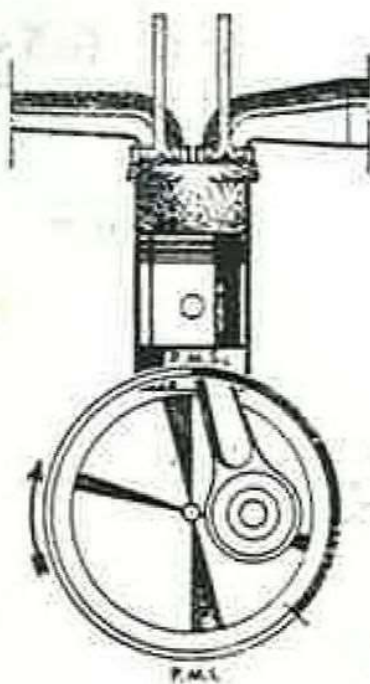
### Inlet

Start:  $34^\circ$  before top  
dead centre  
End:  $66^\circ$  after bottom  
dead centre



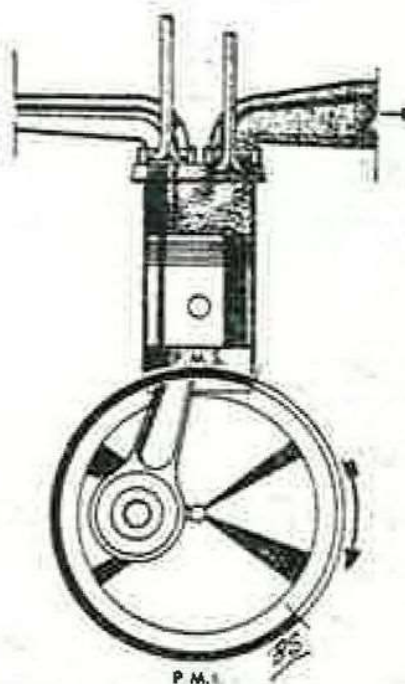
### Compression

The valves are closed



### Explosion

The valves are closed



### Exhaust

Opens:  $66^\circ$  before top  
dead centre  
Closes:  $34^\circ$  after bottom  
dead centre

Fig. 5

The above data must be checked with a clearance of mm. 0.3 (.012") between the rockers and valves. Normal clearance between the rockers and the valves, while the engine is cold:

Suction : mm. 0,1 (.004")

Exhaust: mm. 0.15 (.006")

### **Feed**

The carburettor is gravity fed, from the tank, by means of branch piping and two taps.

To provide a reserve petrol supply, keep one tap closed.

### **Make of carburettor and adjusting of same**

Dell'Orto UBF 22 BS, with air-intake connection No. 4224.00.82.

22 mm. (abt.  $1\frac{3}{16}$ ") diameter choke.

Maximum jet : 100.

Minimum jet : 40.

The minimum-air screw opens on 1 turn.

No. 70 gas valve.

E 16 needle on the 2nd notch.

No. 260/A atomizer.

The fuel screw opens with a three-quarter turn.

### **Ignition**

Battery ignition, with:

1 – Automatic timing advance contact breaker, connected to the distributing axle. The set timing may be adjusted by means of two round vents on the contact breaker plate, through which the fixing screws pass, and which, once loosened, allow the contact breaker to rotate.

Set timing :  $3^{\circ} \div 5^{\circ}$ .

Automatic timing :  $38^{\circ} \div 39^{\circ}$ .

Total advance :  $41^{\circ} \div 44^{\circ}$ .



**2** – Ignition coil, fitted under the upper frame tube, in the tank opening.

**3** – Condenser, screwed to the contact-breaker plate.

**4** – Emergency coil feeder, incorporated in the head-lamp. This device allows starting the engine with a dead battery, or even without a battery.

**5** – CW 275 B Marelli spark-plug, or similar plug. Diameter and thread 14 x 1.25 (long thread).

### **Lubrication** (See Fig. 6)

By forced circulation to the driving axle and rockers, with geared pump and detachable filter.

### **Cooling**

Air-cooling, by means of an adequate finning on cylinder, head and rocker cover.

### **Drive**

Primary : By helical gears.

Gear ratio : 3.047 (64/21).

Secondary : Chain drive (1/2" x 7.8), with rubber shock absorber, fitted between the brake drum and the wheel hub.

Driving ratio : 3,800 (57/15)

### **Clutch**

Multi-plate clutch.

6 Lined driving plates.

6 Steel driven plates.

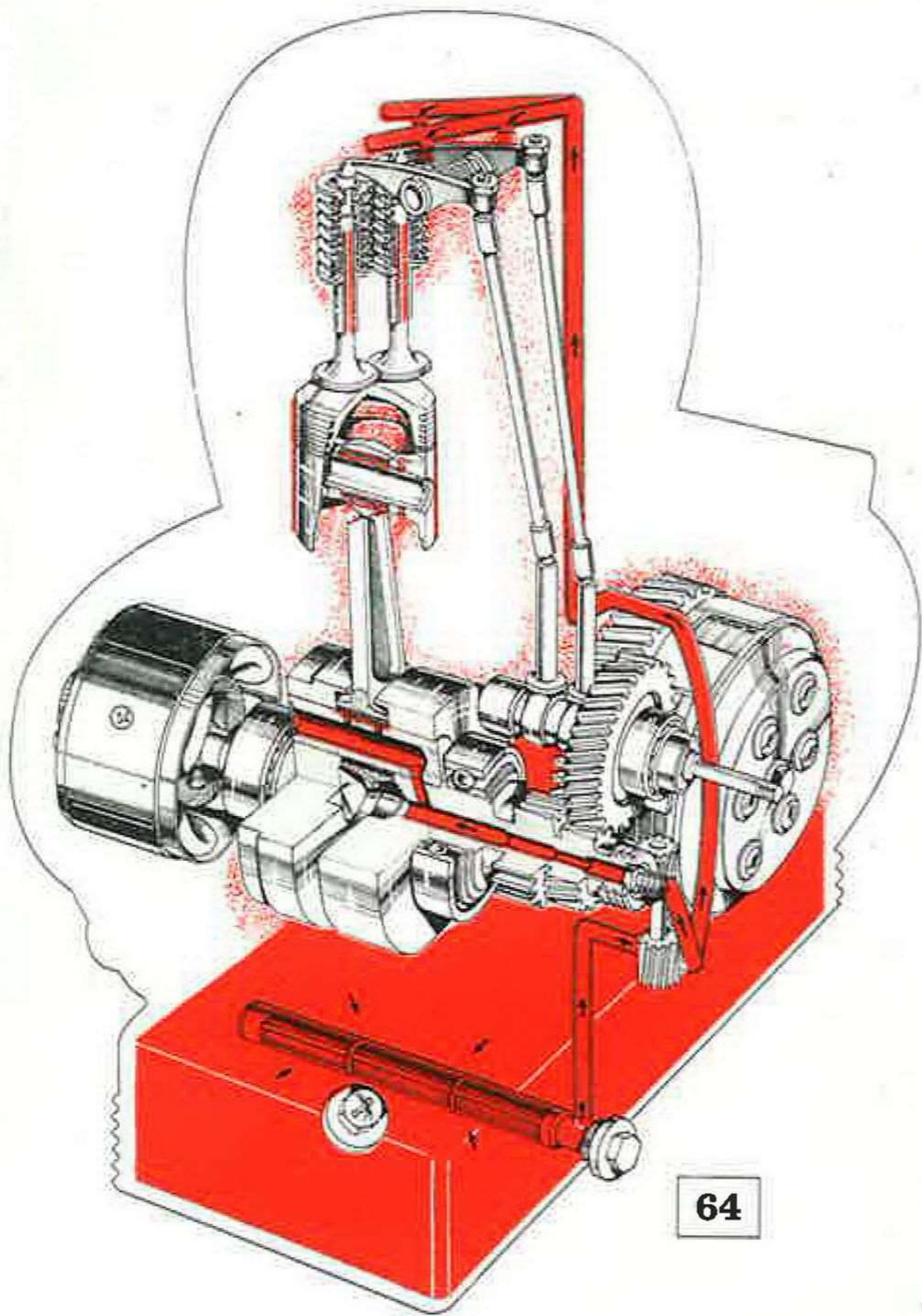


Fig. 6



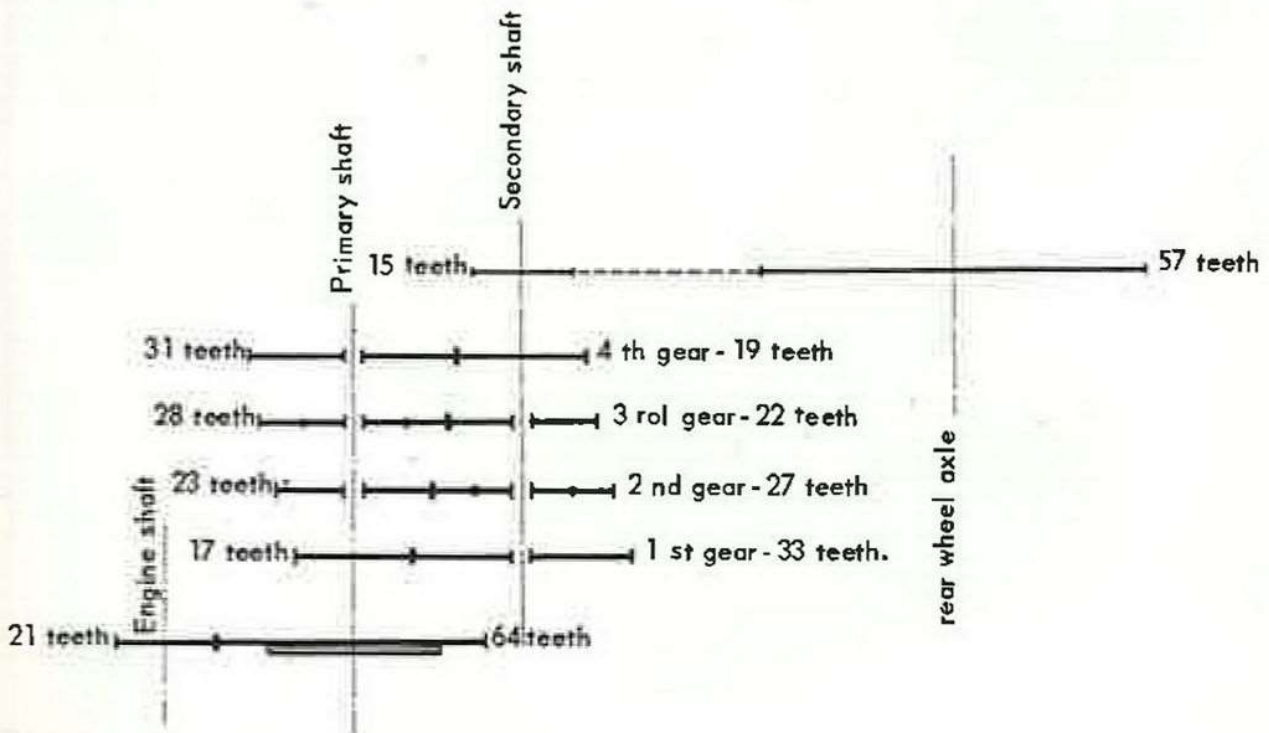
## Gear box

Four-speed cascade foot change unit gear box, with gears always engaged and sliding.

### Ratios

Engine - gearbox	Gearbox	Gearbox - wheel
	1 <sup>st</sup> vel.) $33/17 = 1,941$	
	2 <sup>nd</sup> vel.) $27/23 = 1,174$	
$64/21 = 3,047$	3 <sup>rd</sup> vel.) $22/28 = 0,785$	$57/15 = 3,800$
	4 <sup>th</sup> vel.) $19/31 = 0,613$	
Final ratios		
1 <sup>st</sup> vel.)	$3,047 \times 1,941 \times 3,800 =$	$22,473$
2 <sup>nd</sup> vel.)	$3,047 \times 1,174 \times 3,800 =$	$13,592$
3 <sup>rd</sup> vel.)	$3,047 \times 0,785 \times 3,800 =$	$9,085$
4 <sup>th</sup> vel.)	$3,047 \times 0,623 \times 3,800 =$	$7,094$

### TRANSMISSION SCHEME



Others final ratios can be obtained by replacing the engine sprocket and rear wheel sprocket as under:

Overall engine-wheel ratios, with 56 - teeth rear sprocket and 15 - teeth engine sprocket.

1st Speed	. . .	22.078	(3.047 × 1.941 × 3.733)
2nd »	. . .	14.465	(3.047 × 1.272 × 3.733)
3rd »	. . .	9.675	(3.047 × 0.851 × 3.733)
4th »	. . .	6.969	(3.047 × 0.613 × 3.733)

Overall engine-wheel ratios, with 55 - teeth rear sprocket and 15 - teeth engine sprocket.

1st Speed	. . .	21.681	(3.047 × 1.941 × 3.666)
2nd »	. . .	14.208	(3.047 × 1.272 × 3.666)
3rd »	. . .	9.505	(3.047 × 0.851 × 3.666)
4th »	. . .	6.847	(3.047 × 0.613 × 3.666)

Overall engine-wheel ratios, with 58 - teeth rear sprocket and 15 - teeth engine sprocket.

1st Speed	. . .	22.864	(3.047 × 1.941 × 3.866)
2nd »	. . .	14.98	(3.047 × 1.272 × 3.866)
3rd »	. . .	10.245	(3.047 × 0.851 × 3.866)
4th »	. . .	7.220	(3.047 × 0.613 × 3.866)

Overall engine-wheel ratios, with 59 - teeth rear sprocket and 15 - teeth engine sprocket.

1st Speed	. . .	23.260	(3.047 × 1.941 × 3.933)
2nd »	. . .	15.243	(3.047 × 1.272 × 3.933)
3rd »	. . .	10.198	(3.047 × 0.851 × 3.933)
4th »	. . .	7.346	(3.047 × 0.613 × 3.933)



# CHASSIS

## Frame

Cold-drawn steel tubes, joined by electric, or autogenous, welding, according to requirements.

## Front suspension

Telescopic fork, with hydraulic damping, at the end of travel.

## Rear suspension

Pivoted fork, with helical, cylindrical torsion, springs incorporated, with the hydraulic shock-absorbers, in telescopic cases.

## Brakes

Internal expanding jaw-type brakes, on both wheels, acting on the following diameter:

Both rear and front brakes - 158 mm. (abt. 6 1/4").

## Wheels

Tangent spoke wheels, with 17" x 2 1/4" steel rims.

## Tyres

Ribbed 17" x 2 3/4" front tyre.

17" x 3"R heavy tread rear tyre.

Tyres pressures:

With rider and	{	Front tyre :	1.75 kg. per sq.cm.
passenger :		Back tyre :	2.50 kg. per sq.cm.
With rider only :	{	Front tyre :	1.75 kg. per sq.cm.
		Back tyre :	1.75 kg. per sq.cm.

## LIGHTING EQUIPMENT

(See fig. 7)

The lighting is by the following equipment:

1. 45W - 6V right-hand rotating dynamo, of the so-called « flywheel » type, the rotor being keyed direct to the driving axle, while the stator, centered by a projecting housing on the crankcase; is fixed by two studs to same. Regulator, with rubber mounting, fitted to a projecting base, welded to the frame, between the front guard pieces
2. Battery of 8 A/h - 6 V capacity.
3. Electric horn, 6 V. Cometal C 1.
4. Lighting equipment: 3-light headlamp of mm. 130 (about 5') diameter, with dipper, fitted with :
  - 1 25/25W - 6V bilux country light.
  - 1 3W - 6V city light.
  - 1 3W - 6V pilot light.
  - 2 Fuses.
  - 1 Removable electric circuit ignition and lighting switch-key.
  - 1 Emergency coil feeder.

Dipswitch, with horn button, fitted to the handle bar.

Rear light with reflector and 2 lamps : 15W - 6V stop lamp, and 5W - 6V number-plate and parking light.



The switch key has three positions :

headlamp APRILIA	}	Central - Engine ignition	}	Removable key
		Left - Parking light		
		Right - Normal and anti- dazzle light		

The SIEM headlamp has, in all, 5 positions, as follows:

headlamp SIEM	}	Central - Open circuit	}	Removable key
		Left - Parking lights		
		1st Ignition		Non removable key
		2nd Parking light		
	3 to the right :	3rd Normal and anti-dazzle light		

## DRIVING INSTRUCTIONS

### Ascertain:

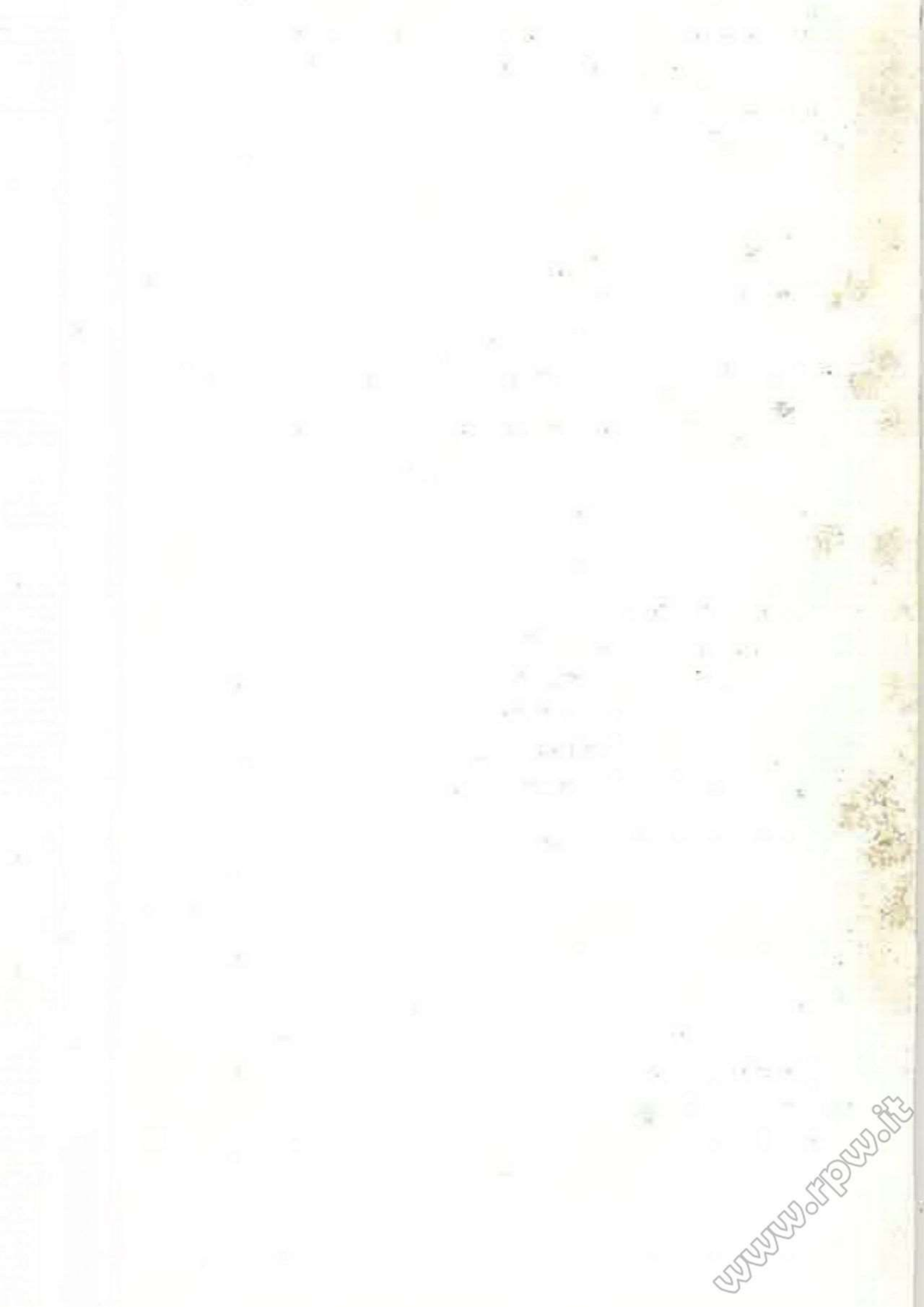
1. There is petrol in the tank.
2. The oil is at the correct level, i.e. touching the filler plug hole.
3. The petrol tank tap is open (vertical position of the lever).
4. That the emergency coil-feeder is pointing towards the word « batteria » (battery). In this position, if the battery is efficient, after having put the key in, the red pilot lamp, indicating that the battery is charging, must light. This lamp must go out, as soon as the engine exceeds the speed at which the dynamo begins to produce current.
5. That the gear shift lever is in neutral position.

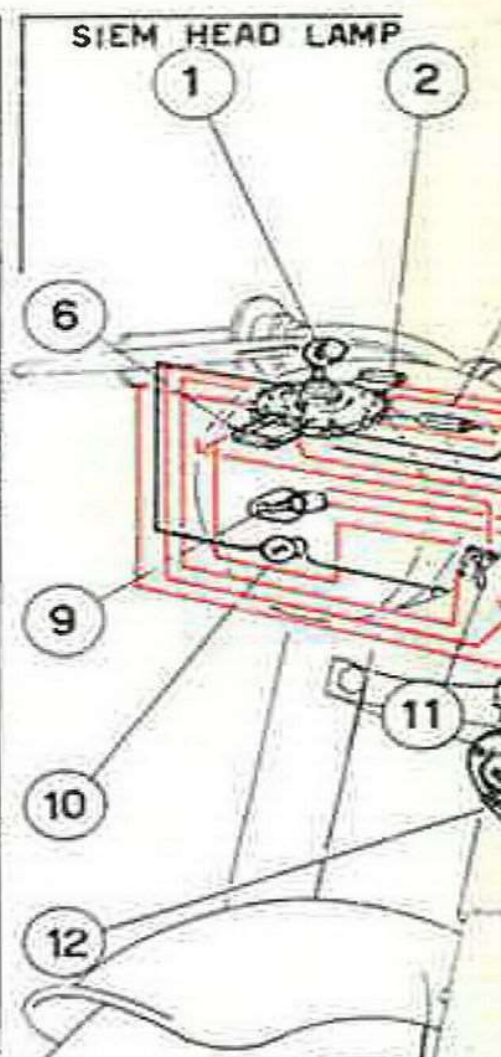
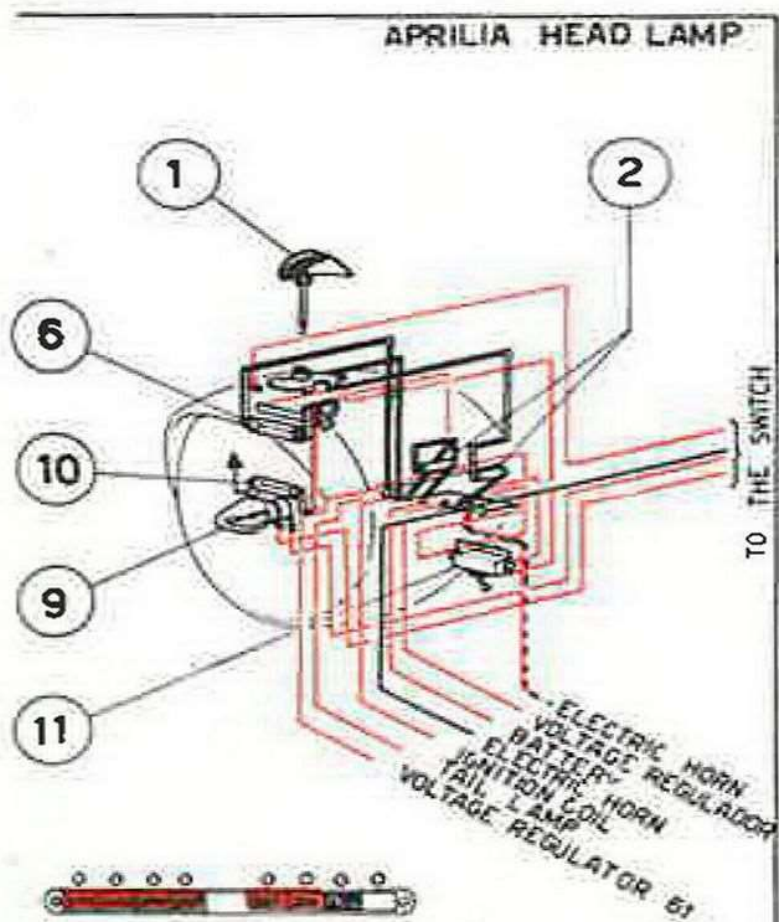
### Starting

With SIEM headlamp, insert the key as far as it will go, and turn it to the 1st position, on the right.

With APRILIA headlamp, only insert the key as far as it will go. Pull the air lever, on the right of the handle bar, fully forward (Fig. 8), turn the throttle twistgrip by about an 1/8th of a turn, then press forcibly, with the foot, on

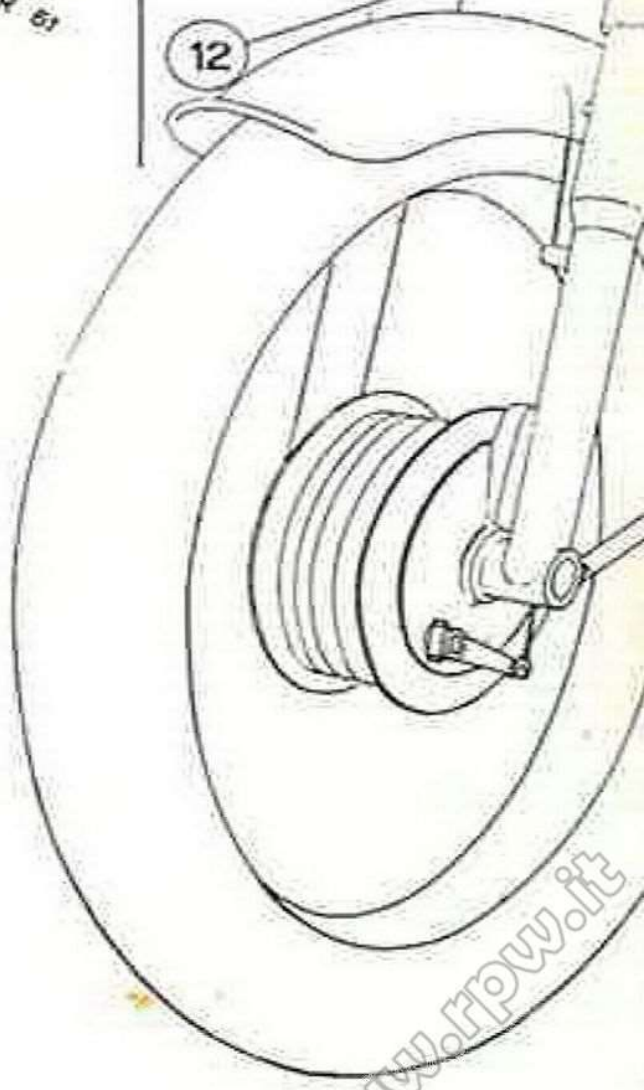




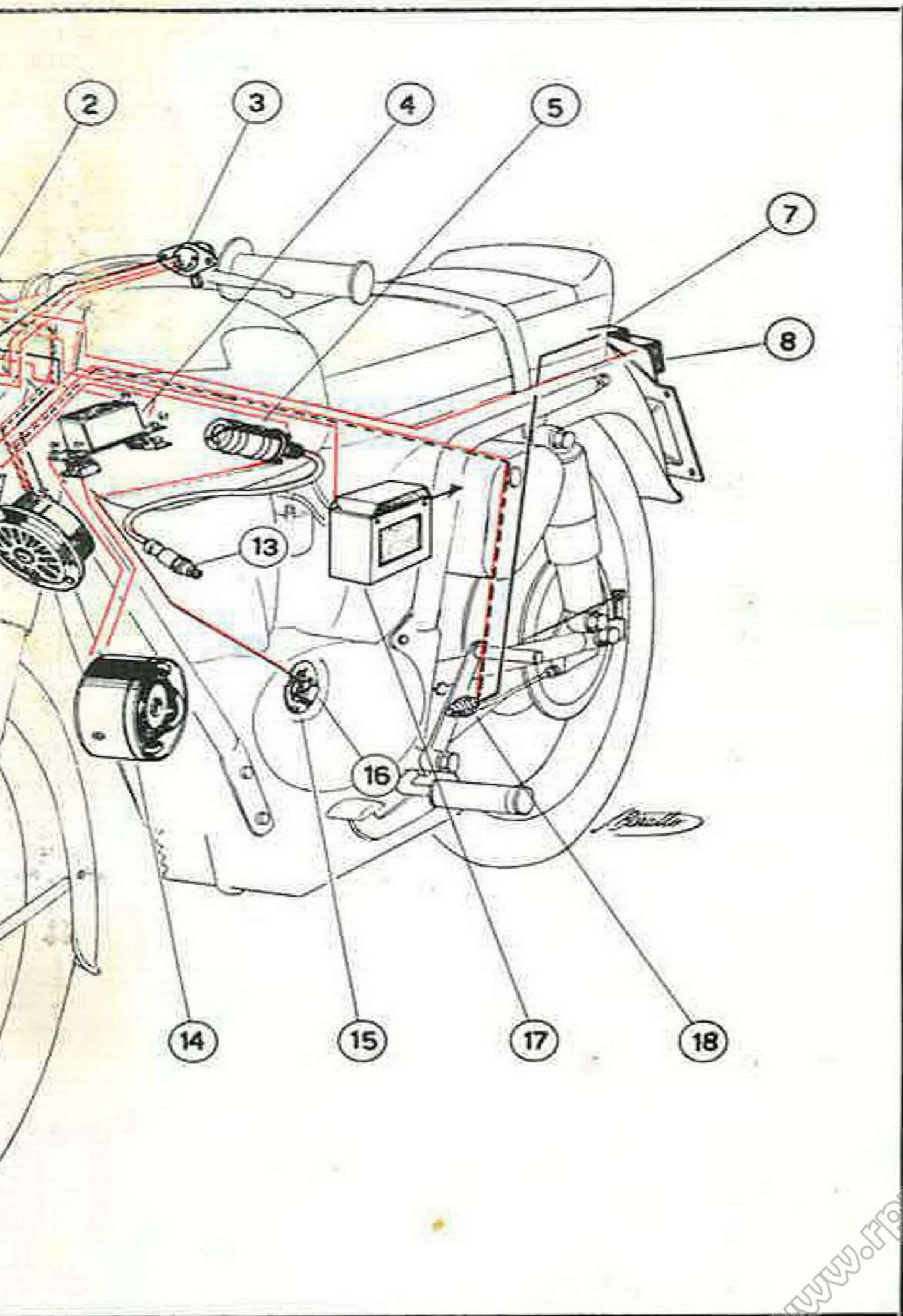


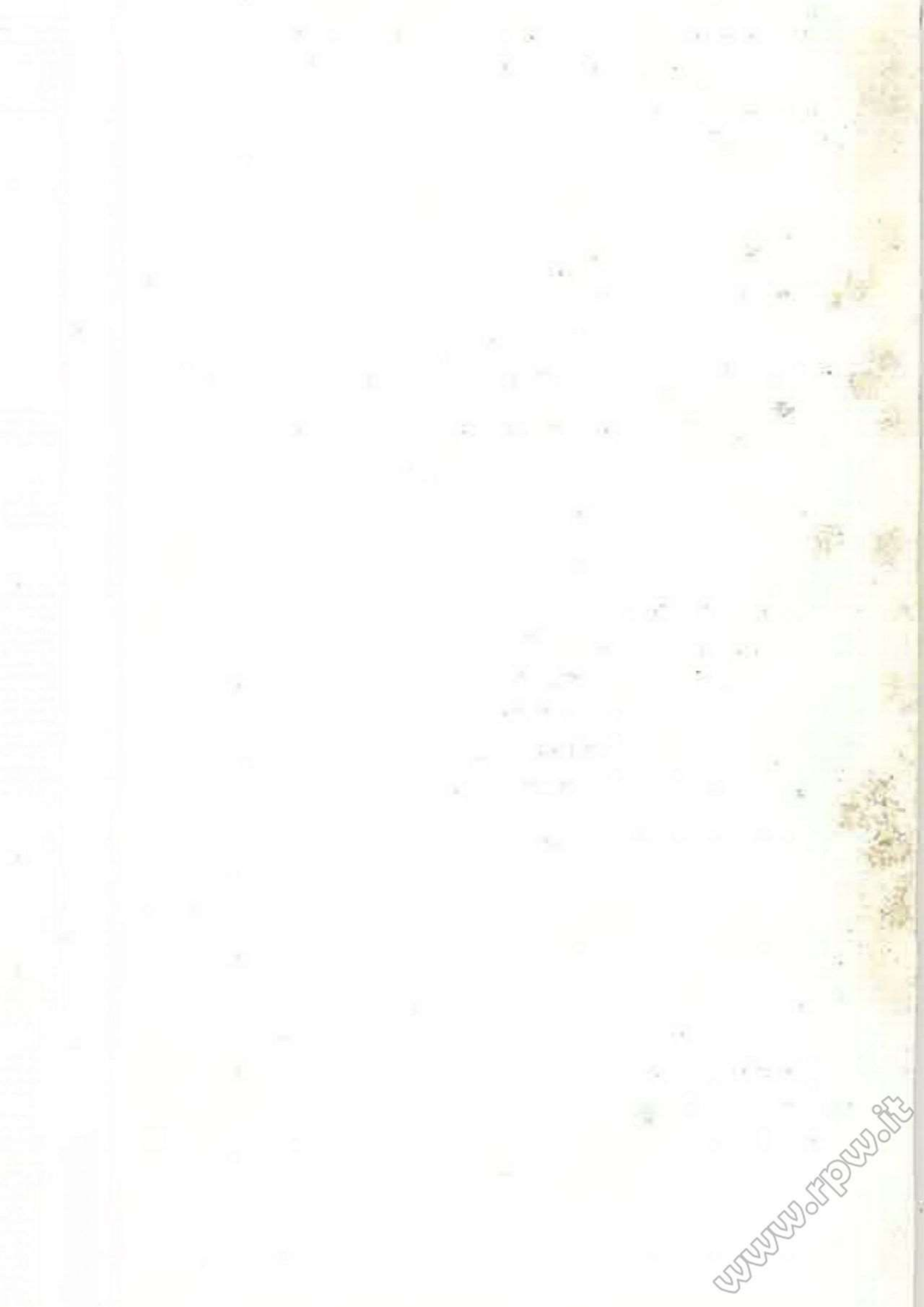
**Fig. 7 - ELECTRIC WIRING LAYOUT**

- 1** - Electric circuit switch key
- 2** - Fuses
- 3** - Light dipswitch with horn button
- 4** - Regulator
- 5** - Ignition coil
- 6** - Pilot lamp
- 7** - Stop light
- 8** - Number-plate and parking light with reflector
- 9** - Travelling light
- 10** - Parking light
- 11** - Dipper
- 12** - Horn
- 13** - Spark plug
- 14** - Dynamo
- 15** - Contact-breaker
- 16** - Condenser
- 17** - Battery
- 18** - Stop light switch











the kickstarter. If the engine does not start repeat this operation, turning, more or less, the throttle. Starting is easier, if, before pressing the kickstarter, the engine is under compression.

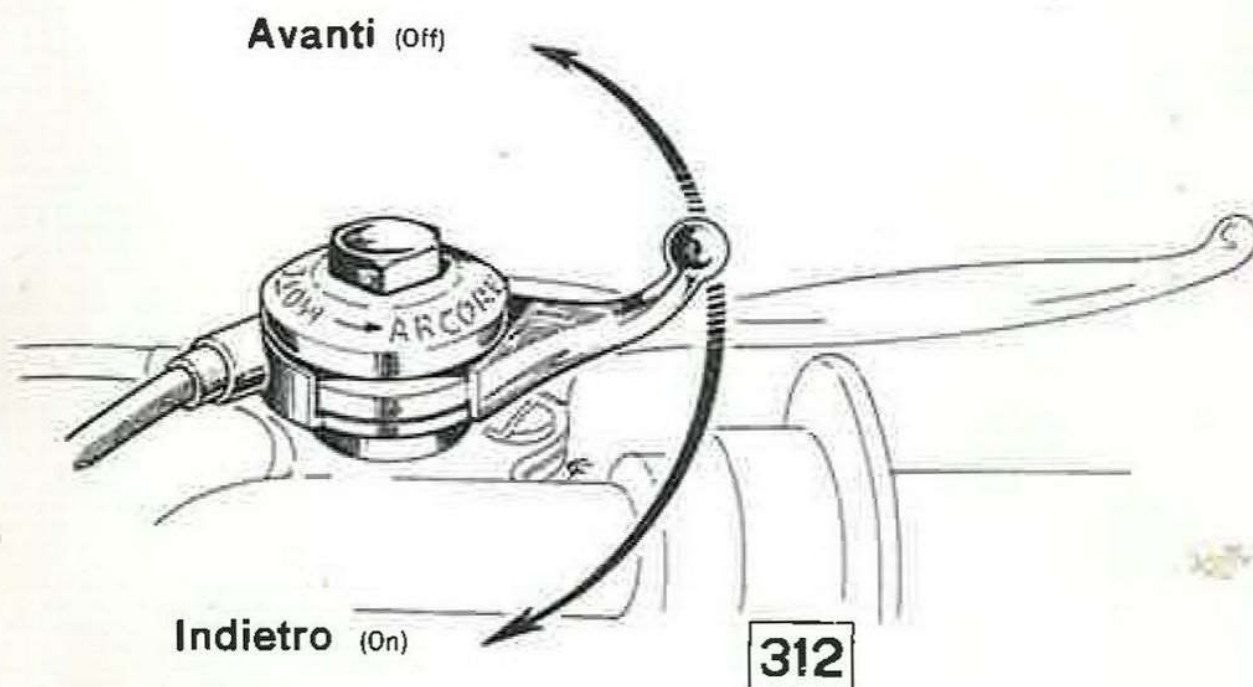


Fig. 8

If the engine does not start, repeat the above operation, after having primed the carburettor. Avoid accelerating the engine at once, especially if it is cold, so as to allow the oil to circulate fully.

### Starting and riding

After having started the engine, as described above, and having pushed the air lever back, the motor-cycle is ridden as follows :

Pull the clutch lever as far as it goes, and with the heel, press the rear arm of the rocker, so as to pass from neutral

position (0) to first gear (1) (See Fig. 10); then gradually release the clutch lever, simultaneously accelerating the engine.

When the motor-cycle has reached a speed of about 26 kms per hour, rapidly close the throttle, pull the clutch lever, and, at once, shift into 2nd speed, pushing the gearbox lever downwards, then release the clutch lever,

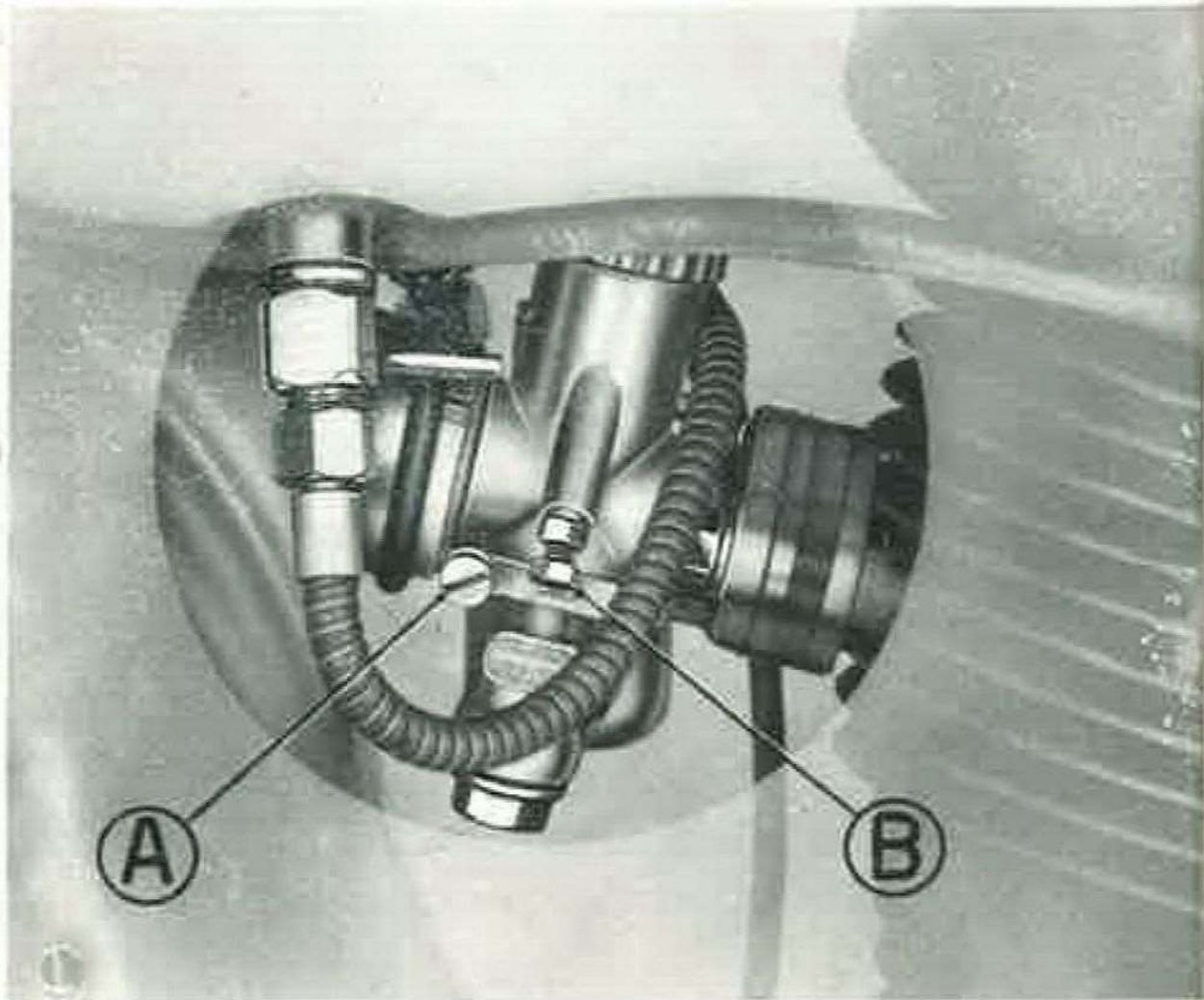


Fig. 9

simultaneously accelerating the engine. On reaching a speed of 40 kms per hour, and, successively, that of 55 kms per hour, moving, respectively, into 3rd and 4th gears, repeating the operations described for shifting into 2nd speed.



To shift from a higher to a lower speed, proceed as follows :

Close the throttle, pull the clutch lever, rapidly accelerate for an instant, so as to allow the gears to be meshed, to become synchronized, press, with the heel, on the rear arm of the rocker, then, releasing the clutch lever, and accelerating, as already described.

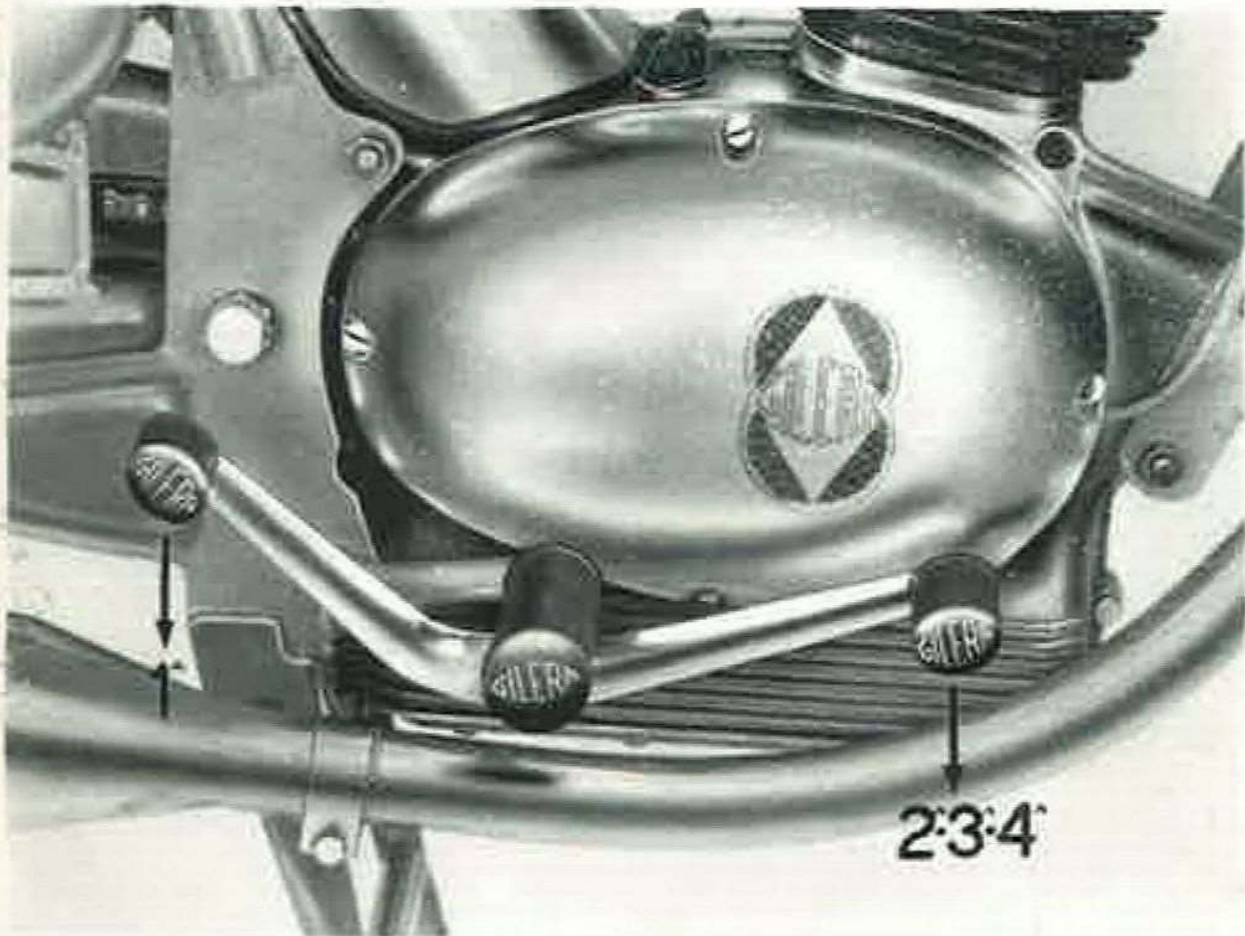


Fig. 10

### **Important advice**

When the motor-cycle is new, so as to permit a gradual mechanical bonding of the parts, it is recommended to effect a running-in period, as under :

For the first 1000 km., do not exceed the following speeds:

In 1st gear	.	.	.	.	.	.	.	25 km. per hour
» 2nd »	.	.	.	.	.	.	.	38 » » »
» 3rd »	.	.	.	.	.	.	.	55 » » »
» 4th »	.	.	.	.	.	.	.	70 » » »

From 1000 to 3000 km., gradually increase the above rates, up to achieving, on completion of the running-in period, the following speeds :

In 1st gear	.	.	.	.	.	.	.	35 km. per hour
» 2nd »	.	.	.	.	.	.	.	55 » » »
» 3rd »	.	.	.	.	.	.	.	80 » » »
» 4th »	.	.	.	.	.	.	.	100 » » »



## MAINTENANCE RULES

The perfect efficiency and life of the motor-cycle primarily depend on the care given to its maintenance, without forgetting, also, that this can promptly reveal eventual irregularities in performance, which could lead to unpleasant consequences.

Before starting maintenance and mechanical adjusting operations, it is necessary to thoroughly clean the cycle, to remove mud, dust and grease.

If necessary, use kerosene with a brush, and dry well, with clean rags. For the paintwork, use water, and dry with a chamois leather.

## ADJUSTMENTS

### **Engine**

**1. Check the oil level in the sump. This must be level with the threaded part of the filler plug hole.**

In the case of new motor-cycles, the oil must be changed after the first 500 kms. This replacement is to be carried out as follows: Remove the filter cap and the filter itself, so as to fully discharge the oil, then replace the filter and its cap and pour  $\frac{1}{2}$  litre of new oil in; start the engine, allowing to run at a minimum about five minutes and then, discharge the oil again, having thus, thoroughly

cleaned out any possible residue of old oil. Completely fill the sump with fresh oil. The oil must then be changed every 2000 kms. We advise the use of Agip F. Motor HD SAE 50 oil, for summer, and SAE40, for winter.

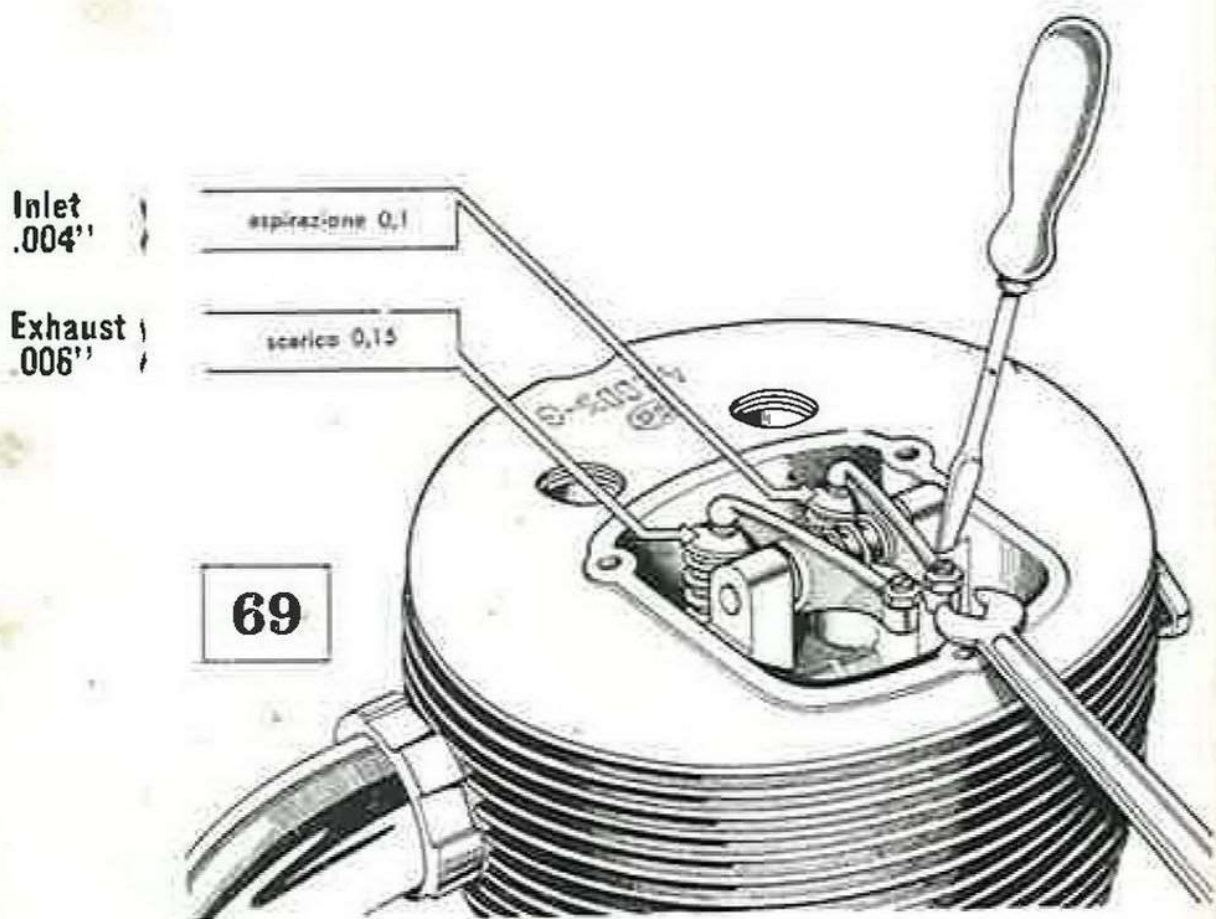


Fig. 11

- 2. Adjust the clearance between the rockers and valve** (See Fig. 11).

Remove the cylinder head cover fixed with 5 bolts. Loosen the adjusting nut by a 10 mm. spanner. Using a screwdriver, screw or unscrew the adjuster until the prescribed clearances of .006" for the exhaust valve, and .004" for the inlet valve is obtained.



Then, after checking the clearance with a gauge, tighten the lock nut, holding the adjusting screw.

This operation is to be effected with cold engine.

### **3. Carburettor adjusting.**

Make sure that the gas valve runs freely, without excessive play, in its seating. Clean the various holes, jets and jet holders, with air blasts, so as to remove any impurities. The carburettor has already been adjusted by us to give the best performance, but accidental causes may alter this adjustment, consequently, to re-adjust same, proceed as follows :

#### *Minimum adjustment.*

This is performed by operating on the screws B and A (See Fig. 9) which, respectively, adjust the position of the valve, and the minimum passage of air, until the correct mixture combination is found, so as to obtain the required minimum. At this stage, on slowly opening the throttle, the engine must not misfire or stop. Otherwise, slightly tighten the minimum air screw, until this weak point disappears. Usually, the minimum air screw is to be opened by a turn, or a turn and a half, with respect to the complete closing.-

#### *Adjustment of the maximum and of the passage.*

If the jets, valves, and needle are of the prescribed gauge, and are not unduly worn, the adjustment should be in order; otherwise, and consequent, especially, to variations in petrol density, or sudden changes in the air temperature, it is necessary to change the maximum jet, or the position of the needle. It is, however, to be



borne in mind that by increasing the density of the petrol or diminishing the temperature, it is necessary to enrich the mixture, by moving the needle upwards, or increasing the size of the jet, and vice-versa, if the petrol density diminishes and the air temperature increases.

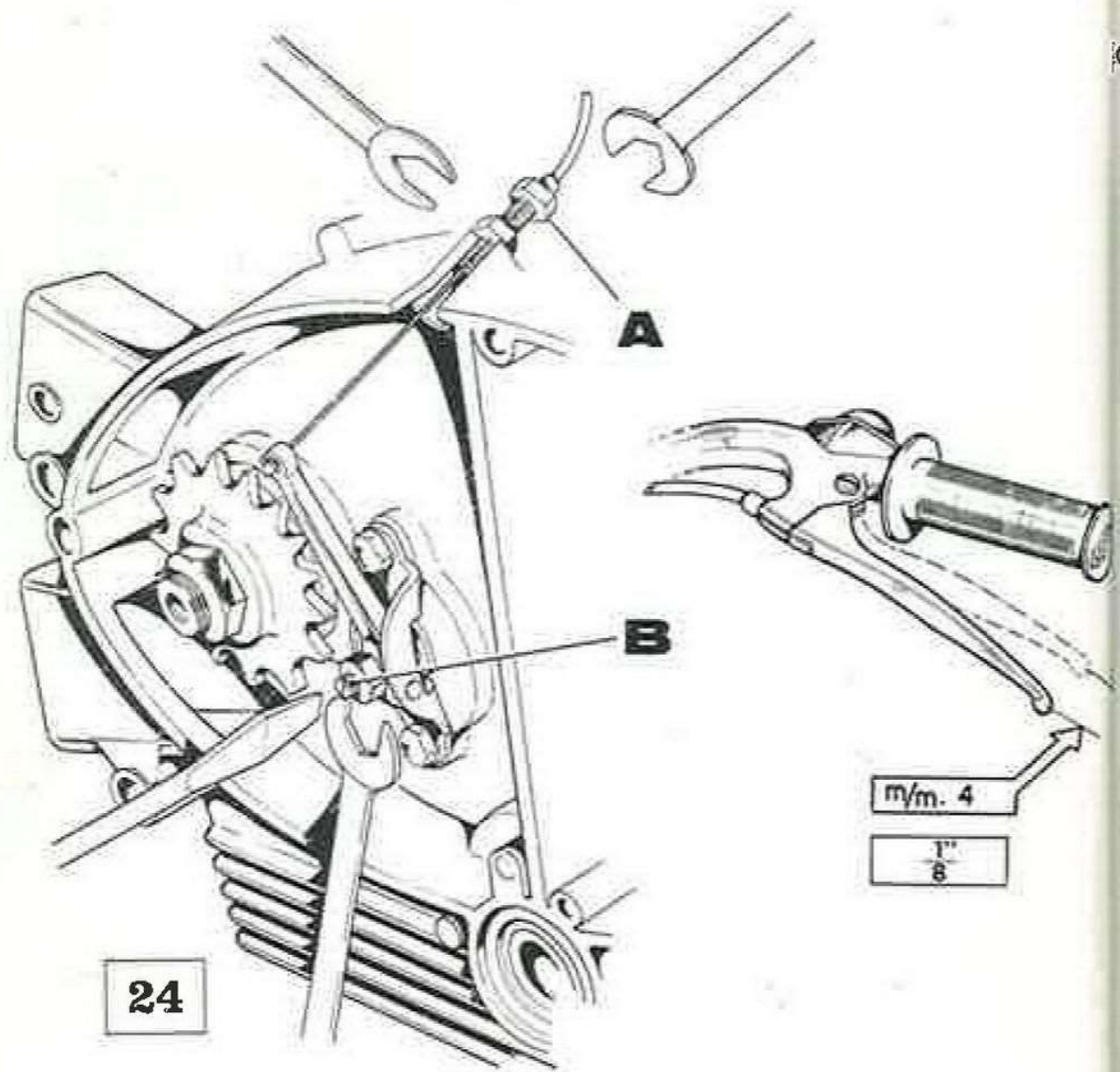


Fig. 12

#### 4. Adjusting the clutch (See Fig. 12).

Operate on the cable adjuster nut A. In the event the cable should be at the end of its thread, screw it back again.



and, then, operate on the adjusting screw B, setting, then, by means of the cable adjuster nut, a clearance of mm. 4 (about  $\frac{1}{8}$ " ) at the tip of the lever on the handle bar.

### 5. Adjusting the contact-breaker (See Fig. 13).

Verify the conditions of the contacts; if they are dirty, clean them with a rag dipped in petrol, drying them prop-

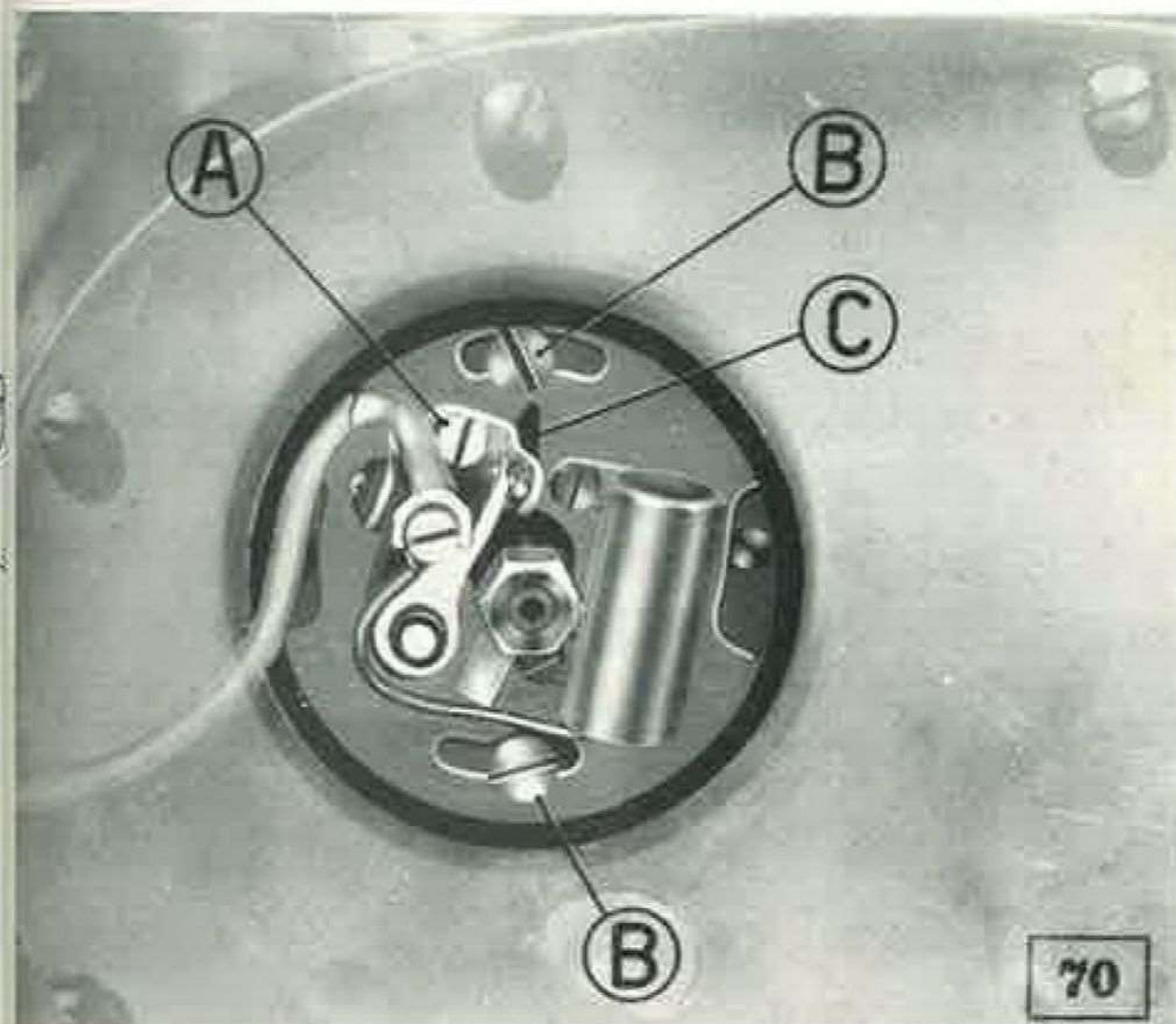


Fig. 13

erly. If the flat surfaces of the contacts should in any way be uneven, file them flat with a special file, properly cleaning them. Should the cam lubricating felt be dry,

damp it, with not more than two drops of fluid mineral oil. After washing with petrol, and drying with blasts of compressed air, lubricate the automatic timing unit on the pins of the masses, on the cam fork, and the cam guide pin with a few drops of fluid oil.

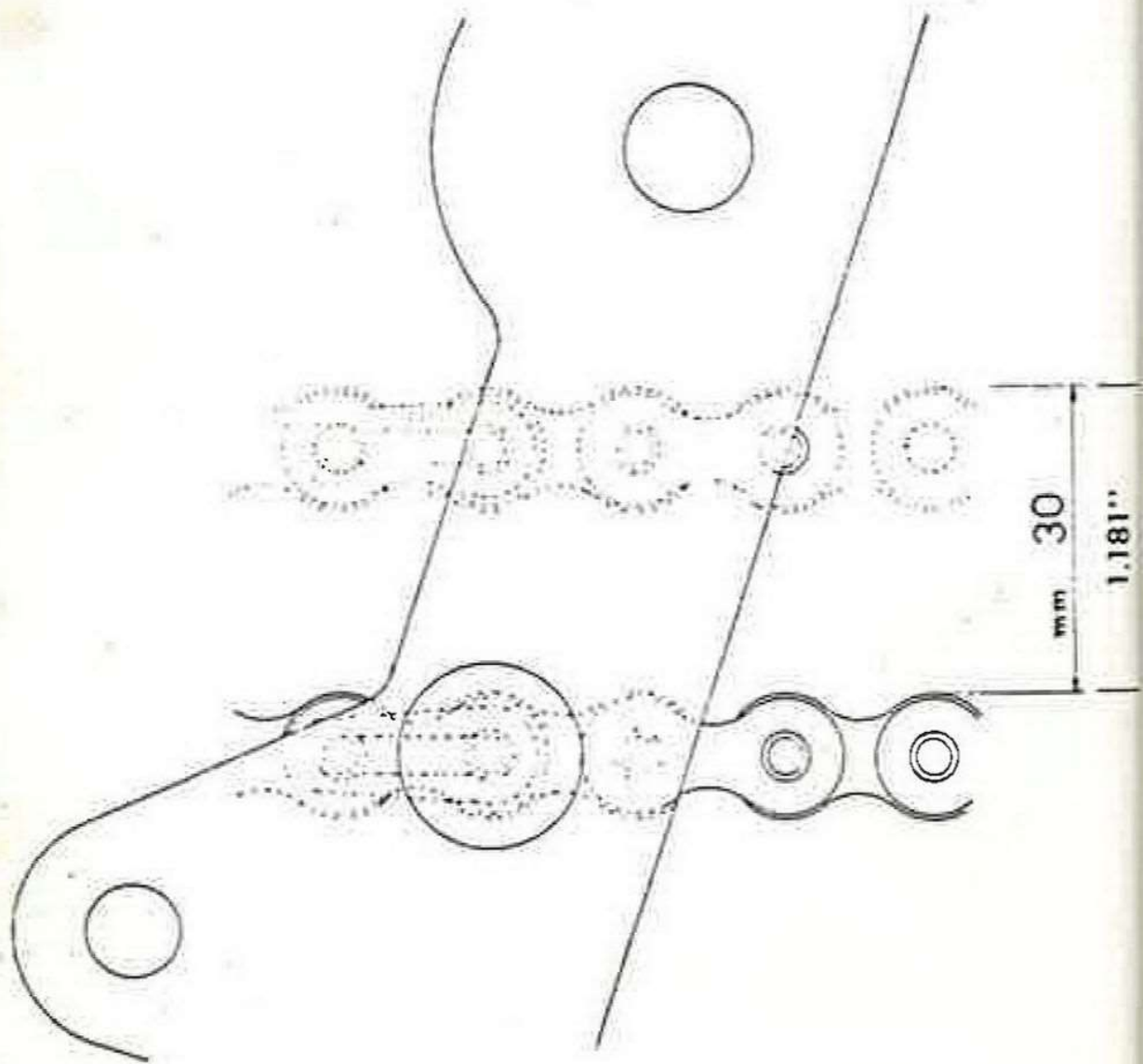


Fig. 14

The contacts are to be set by operating with a screwdriver in the opening C, after having loosened the screw A, so that the gap between the contact points is mm.  $0.35 \pm 0.4$  (.014" - .016").



## CHECKING OF IGNITION TIMING - 175 GIUBILEO MODEL

### 1) Adjust contact breaker points

- a) Check that contact points clearance is .014" - .016" at maximum opening.
- b) Eventually adjust this clearance by means of the screws A (see fig. 13 of the instruction book).

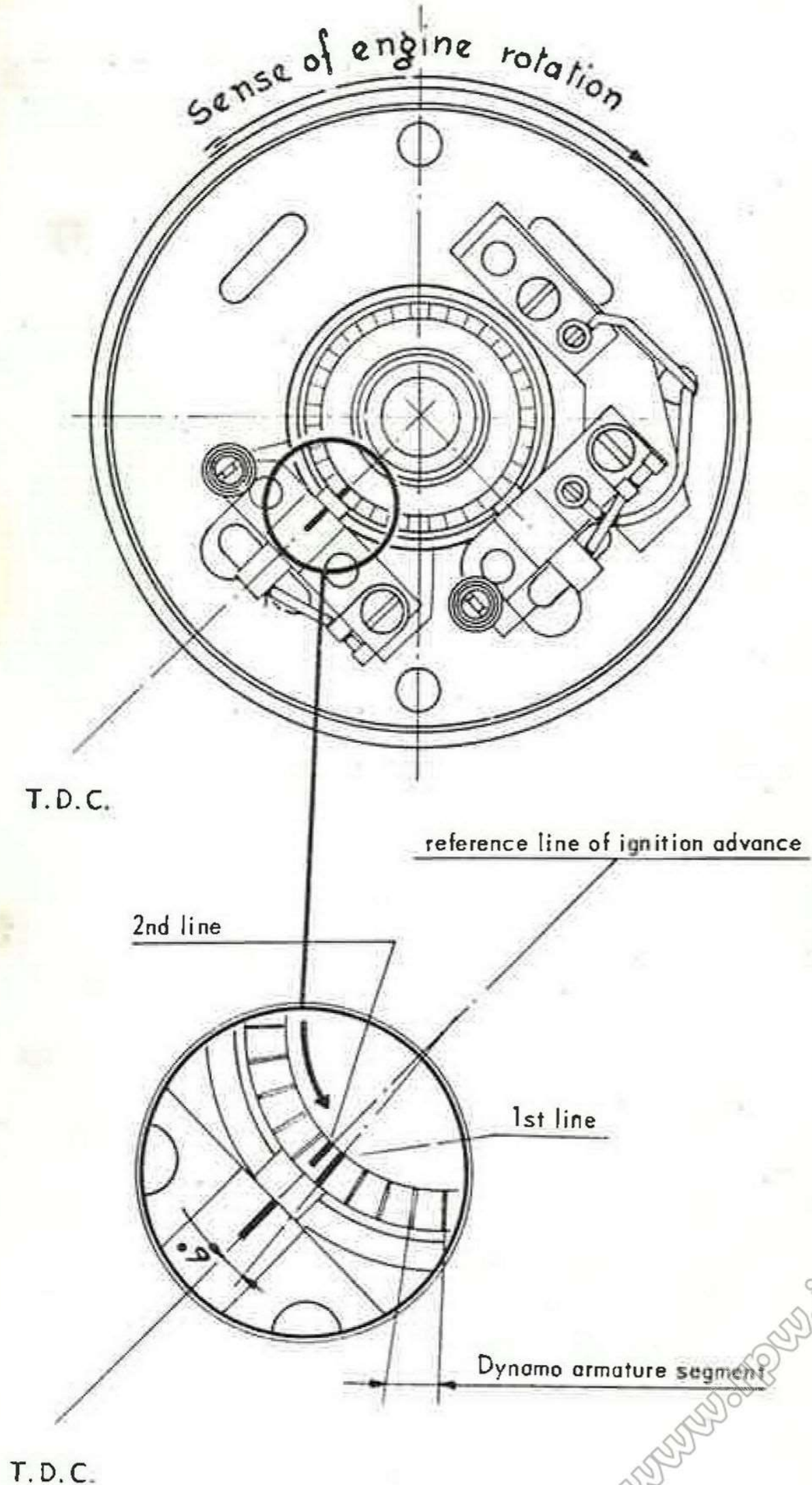
### 2) Position the contact breaker plate

- a) Have the piston at T.D.C. in compression phase and make a first reference line across the dynamo armature and the dynamo brush housing (see fig.13 Bis). Make a second reference line on the dynamo armature at 6 degrees clockwise, that is a half of the dynamo armature segment, (see fig. 14 Bis).

#### b) Check opening start of the contact points

In order to avoid plays between gears, proceed as follows: Rotate engine shaft anticlockwise of about 45°, then slowly return clockwise and stop when the second line made on the dynamo armature coincides with the one marked on the brush housing. At this moment the contact points should start to open. You can check this by inserting a very thin paper between the points, which must come out when the points start to open; or better with an expressly made contact light.

If points do not start to open when the line coincide, move the contact breaker plate clockwise or anticlockwise according to requirements, by means of the screws B (see fig. 13 on the instruction book).





## **6. Check the spark-plug.**

Remove it with the proper spanner. If it should be dirty, clean it, if possible, with a metal brush.

The gap between the electrodes must be mm.  $0.5 \div 0.7$  (.020" - .028"). In replacing the spark-plug, be careful to insert it with the due inclination, and screw it manually, possibly, as far as it will go, before locking it with the spanner.

## **7. Tightening of the bolts and nuts.**

Check if the nuts of the bolts holding the engine, and also the screws of the various covers and of the crankcase, are properly tightened: otherwise, proceed to lock same.

## **Vehicle**

### **1. Chain**

The adjustment of the chain is effected by operating uniformly on the tensioners, after having loosened the wheel stud fixing nuts, and the nut, fixing the chain cover to the fork.

To check the correct chain tension, place the cycle on its prop-stand, and measure the slack along the edge of the rear engine support plate, which results by lifting the lower edge of the chain along this edge. This slack should be of 30 mm. (about 1.1811") (See Fig. 14).

### **2. Brakes**

The adjustment of the front brake control is performed by operating on the cable adjuster positioned on the brake drum. It is necessary to allow 4 mm. play at the tip of the brake lever on the handle bar.

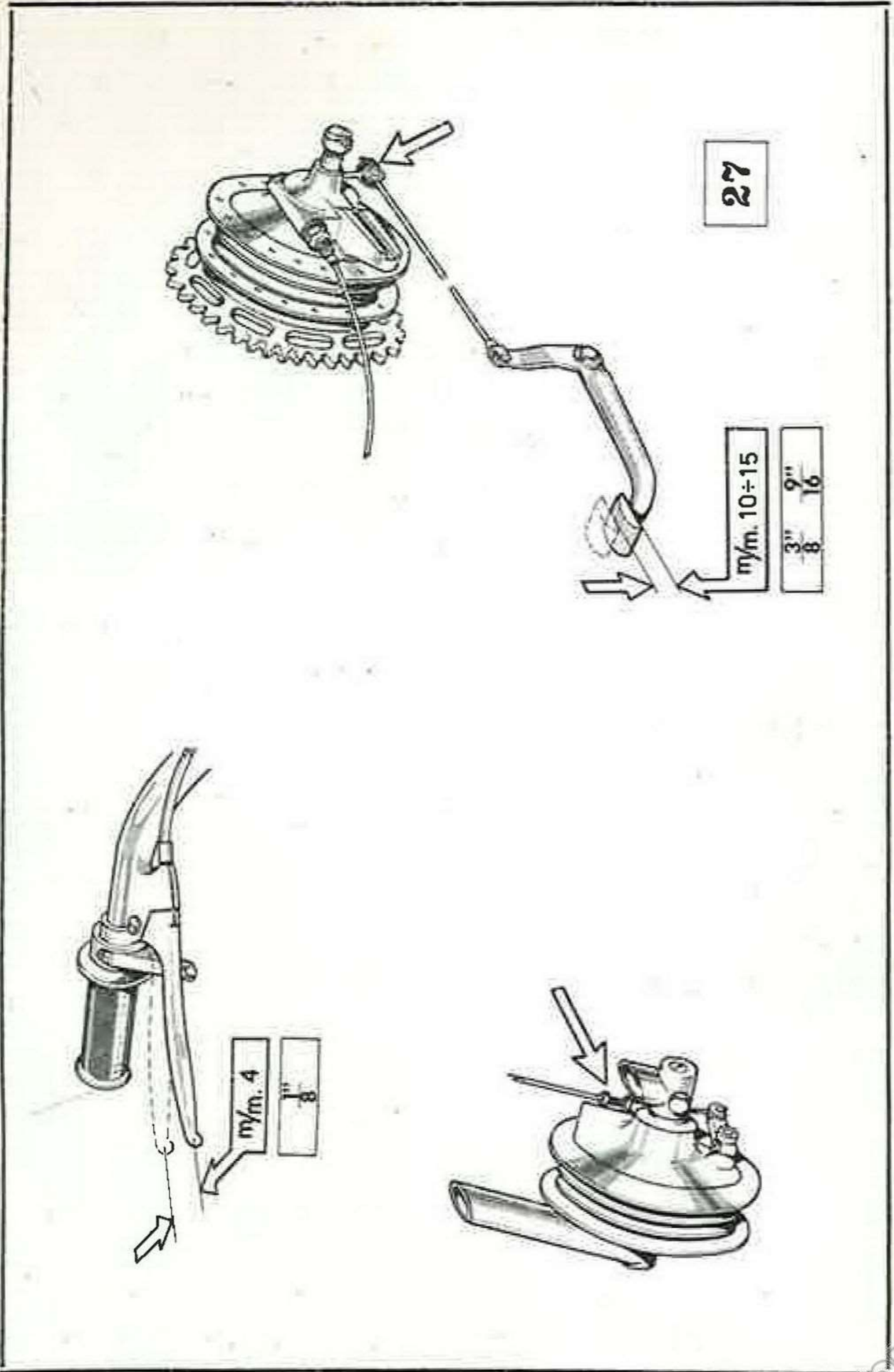


Fig. 15



The rear brake is adjusted by operating on the knurled knob, screwed on the control rod. Adjust up to leaving a play of 10-15 mm. (about  $\frac{3}{8}$ " -  $\frac{1}{16}$ ") at the tip of the pedal (See Fig. 15).

### **3. Front wheel**

To remove the front wheel, proceed as follows:

1. Detach the brake control cable from the handle-bar lever, and, then, from the brake.
2. Remove the nut on the right side of the wheel stud.
3. Loosen the small closing bolt on the left prong of the fork.
4. Slide the wheel stud from the left side, by knocking on the top of the threaded right end of the stud itself
5. Remove the wheel, downwards.

To replace the wheel after having introduced same with its side spacer, and slid the brake shoe in position on the left fork prong, introduce the wheel stud, from the left side, locking it to the right prong, by means of the previously removed nut. Then, lock the stud on the left prong, by means of the small clamp-end bolt.

### **4. Front suspension (See Fig. 16)**

The telescopic fork does not need special maintenance. The oil content is of 90 cubic centimetres for each leg. The checking of the oil, which is AGIP F.1 Motor HD. SAE 20W/20 must be carefully effected every 5000 kms. In the event that, after such mileage, the oil should be still in excellent condition, it will be sufficient to top up only, to have the above-mentioned quantity.



Fig. 16



To drain the oil off, remove the lower inclined plug (1), positioned near the wheel stud. Fill through the upper plug (2), positioned on the handle-bar end.

## **5. Rear suspension.**

Except lubricating the fork oscillating stud, at long periodical intervals, no other maintenance is required. In the event the hydraulic shock-absorbers, incorporated with the suspension, should not be efficient, it is advisable to send same to us or our service stations.

## **Electric equipment**

### **1. Dynamo**

The dynamo maintenance should be limited to a periodical check of the brushes and collector.

Make sure that the brushes work freely in the guides, and are not too worn; in this latter event, it is necessary to replace them.

Remove the deposit of oil and carbon dust, with petrol, drying thoroughly.

Clean the collector with a petrol dampened rag, while the engine is not running, so as to avoid causing a fire with brush sparks. If they should be slightly scratched, start the engine and pass lightly with fine sandpaper (never use emery paper); if, however, the scratches should remain, it will be necessary to remove the rotor (generator armature), and lathe the collector again. When replacing brushes, use the original brushes supplied by the makers of the dynamo. Never wet the armature and the inductor field with petrol, this will damage them beyond repair.

## **2. Regulator**

No maintenance required.

## **3. Battery**

This is the unit of the electric equipment that needs the most assiduous care, and the most diligent maintenance. Frequently check that the level of the liquid fully covers the battery plates, otherwise add distilled water (absolutely avoiding to use natural water, even drinking water), and, at the same time, check the density of the liquid (for this, it is advisable to apply to an expert, provided with the necessary equipment). In the event that the cycle should be kept idle for a certain time (a month or more), it is necessary to periodically have the battery recharged. Within three months, the battery automatically and fully discharges.

When installing the battery on the motor-cycle, be careful not to cross the connections, bearing in mind that the mesh wire is to be connected to the negative terminal clamp, while the other wire, marked in blue, is to be connected to the clamp marked +.



## FAULT FINDING HINTS

The most probable causes of unsatisfactory engine performance can be split into three groups:

### **1. Inconveniences deriving from bad carburation.**

- a) *Repeated crackling, especially at high speed and with full load.*

This may be caused by clogged carburettor tubes and jets, or water in the petrol. In the former event, remove the carburettor jets, and clean them, by blowing in them; in the latter case, completely change the petrol in the tank.

- b) *Lacking of regularity in the cracking, and unusual heating of the engine.*

This inconvenience may be due to the too rich, or insufficient, air-petrol mixture. In this event, try tightening the screw A, with a screwdriver (See Fig. 9). If the cracking increases, this indicates that the mixture is rich, and it is, therefore necessary to lower the needle, or reduce the jet of the maximum. If, vice-versa, the cracking diminishes, this is an indication that the mixture is weak, and it is, therefore, necessary to raise the needle, or increase the maximum jet.

## **2. Inconveniences caused by uneven ignition.**

- a) *Too advanced ignition* (metallic knocking caused by uneven stresses on the piston), or *too retarded ignition* (abnormal heating of the engine, cracking on exhaust).

Loosen the contact breaker screws B, clockwise, to retard, or anticlockwise, to advance.

- b) *Self-igniting* caused by excessive heating or by carbon deposits on the crown of the piston, or in the combustion chamber (head knocking of the engine). Take to pieces, and clean the parts.

- c) *Stammering, consequent to misfiring.*

In this case, remove the spark-plug, clean it and check the distance between the electrodes (mm.  $0.5 \div 0.7$ ). If the trouble is not caused by the spark-plug, check if its cable is broken, then, check the contact-breaker points, as described above.

## **3. Inconveniences deriving from bad working of the parts.**

- a) *Uneven engine power.*

This may be caused by insufficient compression (excessive play between the piston and the cylinder, due to heavy wear, insufficient gas-tightness of the valves, due to wearing of the seats, spotted valves, caused by the lacking of the prescribed clearance, between the rockers and tappets).



b) Excessive head knocking of the engine, and metallic noise.

These may be caused by the excessive play between the little rod of the rocker and the valve, or by broken or weakened valve springs, the former, and, the latter, by deficient lubricating of the rockers and the valves, due to clogged oil pipes, by bad working of the oil pump.

For these inconveniences, it will be advisable to apply to our Licensees or authorized mechanical workshops.

**"175 SUPER" MODEL**







Fig. 17 «SUPER» Model (right side)



## LAY-OUT OF CONTROLS

See «175 Giubileo Extra» (page 8)

## IDENTIFYING DATA

See «175 Giubileo Extra» (page 11)

## GENERAL CHARACTERISTIC

### Engine

See «175 Giubileo Extra» (page 12)

### Chassis

See «175 Giubileo Extra» (page 12)

### Performance

Top speed : 71 m.p.h.

Max. negotiable gradient . . . . . 35%

Fuel consumption: 100 m.p.g. (according to CUNA standard)

Fuel tank range : 340 miles

### Dimensions and weights

See «175 Giubileo Extra» (page 13)

### Capacities

See «175 Giubileo Extra» (page 13)

# DESCRIPTION

## ENGINE

4 - stroke

Number of cylinders	1
Bore . . . . .	65 mm.
Stroke . . . . .	61 mm.
Total cubic capacity . . . . .	202.4 cc.
Compression ratio . . . . .	7 : 1
Max. power . . . . .	11 h.p. (metric)
Max. power at . . . . .	6,500 r.p.m.
Max. torque at . . . . .	4,000 r.p.m.

### Timing

See «175 Giubileo Extra» (page 14)

### Fuel system

See «175 Giubileo Extra» (page 16)

### Carburettore type and settings

Dellorto UBF 22 BS with air intake tube n. 4220082  
22 mm. diameter choke



Main jet 105 (summer)

Main jet 110 (winter)

Pilot jet 45

The minimum air screw to be open one turn

Throttle valve no. 60

Needle E 12 on 2nd notch

Sprayer 260 A

Mixing screw to be open  $3/4$  of a turn

### **Ignition**

See «175 Giubileo Extra» (page 16)

### **Lubrication**

See «175 Giubileo Extra» (page 17)

### **Cooling**

See «175 Giubileo Extra» (page 17)

### **Transmission**

The main transmission (engine-gearbox) is by helical gears.

The secondary transmission (gearbox-wheel) is by chain ( $1\frac{1}{2}'' \times 7/8''$ ) with spring joint between the brake drum and the wheel hub.

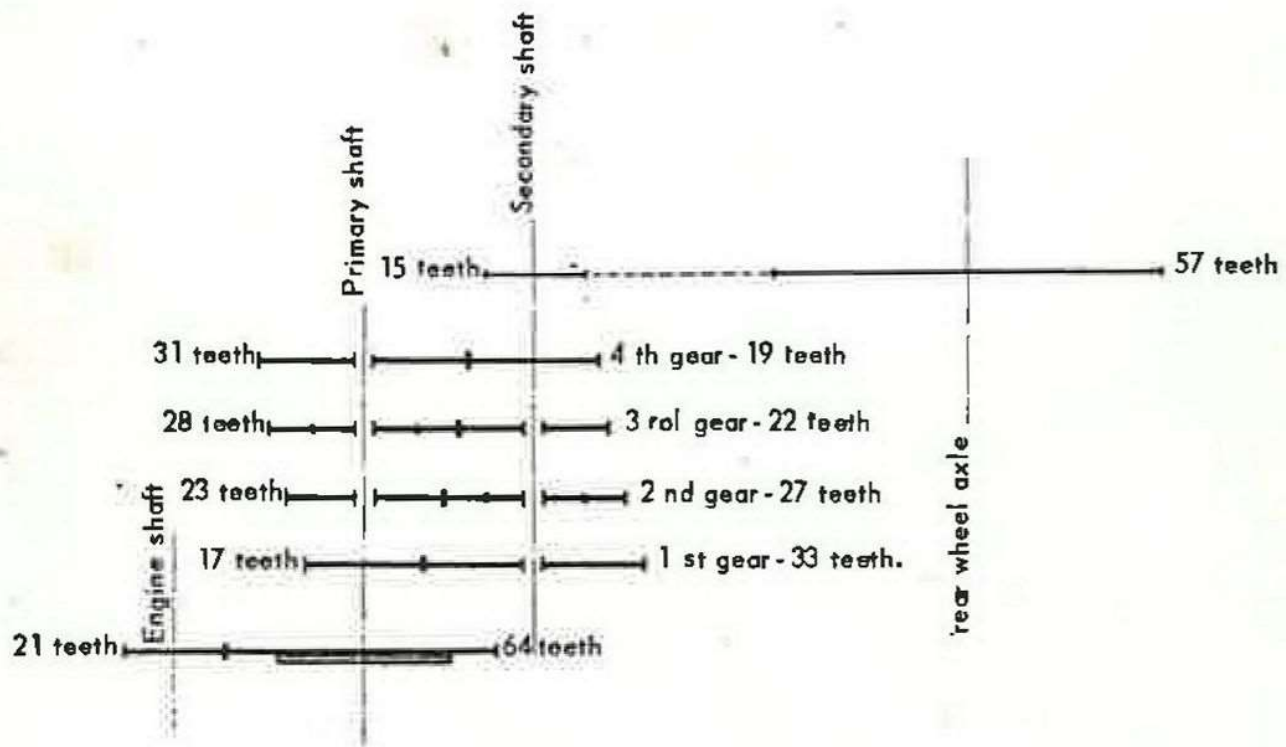
## Ratios

Engine/gearbox	Gearbox	Gearbox/wheel
$64/21 = 3.047$	1st gear	$33/17 = 1.941$
	2nd gear	$27/23 = 1.174$
	3rd gear	$22/28 = 0.785$
	Top gear	$19/31 = 0.613$
		$55/15 = 3.666$

## Final ratios

1st gear	$3.047 \times 1.941 \times 3.666 = 21.680$
2nd gear	$3.047 \times 1.174 \times 3.666 = 13.113$
3rd gear	$3.047 \times 0.785 \times 3.666 = 8.765$
Top gear	$3.047 \times 0.613 \times 3.666 = 6.844$

## TRANSMISSION SCHEME





## **CHASSIS**

See «175 Giubileo Extra» (page 21)

## **LIGHTING EQUIPMENT**

See «175 Giubileo Extra» (page 22)

## **DRIVING INSTRUCTIONS**

See «175 Giubileo Extra» (page 24)

## **MAINTENANCE RULES**

See «175 Giubileo Extra» (page 29)

## **FAULT FINDING HINTS**

See «175 Giubileo Extra» (page 41)

## **GUARANTEE**

*(From General Sales Conditions)*

All « Gilera » motor-cycles, bought from Moto Gilera's sales organization are guaranteed for six months, from the date of purchase. The guarantee covers assembling and material defects. The parts acknowledged as defective will be changed free of charge. The motor-cycles, or parts, to be examined, must be sent to the factory, free of every expense.

Reshipment to customers will be made on a freight-collect basis. Labour, petrol, and oil costs are, in every case, for buyer's account.

The following items are not covered by guarantee: tyres, chains, bearings, carburettor, ignition and lighting equipment, and, in general, all items not manufactured by us. The guarantee is no longer valid: when the motor-cycle has been repaired, or modified, by others, not belonging to the factory; when non-original spare parts have been fitted; when the motor-cycles are hired, used for racing, or in any way used under excess load conditions; when the maintenance rules are not adhered to, including the prescribed quality of oil.



## **LIABILITY**

*(From General Sales Conditions)*

Moto Gilera S.p.A. is not liable for the damage that may be suffered by people and/or property, deriving from the use of their products, even if the damage should be caused by constructional defects of the material supplied.

