Vespa 100

The vehicle in your possession differs from the Vespa 50 illustrated on the booklet « Operation and Maintenance » for the following specific particularities:

Consumption (according CUNA Standards): ∽ 2 lt./100 Km. (117 mls/U.S. gal.).

Max. fuel capacity: ∽ lt. 5,6 (1.480 U. S. gal). Reserve ∽ 1 lt. (0.264 U. S. gal.).

Max. speed (according CUNA Standards): 80 Km/h (50 mph).

Range: more than 280 Km. (174 mls.).

Wheel base: 1180 mm. (46".5).

Handlebars width: 680 mm. (27").

Total length: 1660 mm. (65".3).

Max height: 1010 mm. (39".7).

Min. ground clearance: 225 mm. (8".86).

Turning radius: 1650 mm. (64".96).

Total dry weight: 75 Kg. (165 lbs.).

Engine: Single cylinder, two stroke, rotary distribution.

Bore: 49 mm. (1".93).

Stroke: 51 mm. (2".00).

Displacement: 96.12 cc. (5.865 cu. in.).

Compression ratio: 1/8.75.

PIAGGIO

Vespa

Spark advance: $17^0 \pm 1^0$ before T.D.C.
Sparking plug types: Bosch W 240 T 1 or Marelli CW 7N AT; Champion L 82; AC 445 Z; Lodge 3HN; NGK B7HS.
Ignition: by means of a H. T. ext. coil.
Carburettor: Dell'Orto SHB 19/19.
Transmission ratio engine to driving wheel:

Bottom	gear	1:17.18
2nd	gear	1: 9.66
3rd	gear	1: 6.11

Wheels: Interchangeable and made up of 2.10 - 10" pressed steel flanges; 3.00 x 10" tyres.

TYRE PRESSURE

Front wheel: 1.25 atm. (18.4 p.s.i.).
Rear wheel: 1.6 atm (23.5 p.s.i.).

ELECTRIC EQUIPMENT

Endowed with battery (fitted inside the left cowl), front and rear turn signals, headlamp, with high beam indicator light, fed by alternate current, and that remains always lit, neutral indicator light on the handlebars and rear stop light controlled by front brake lever and rear brake pedal.

We point out that the engine ignition is of the type with flywheel magneto; the battery feeds: Horn, Stop light, Licence plate light, Neutral indicator light, Front and rear turn signals.

The battery charging current, supplied by the alternator flywheel, is controlled by a proper electronic regulator.

In order to avoid a possible cause of discharge of the battery **don't lea-**

ve for a long time the key of the switch « A » on the position « ON » with the engine stopped.

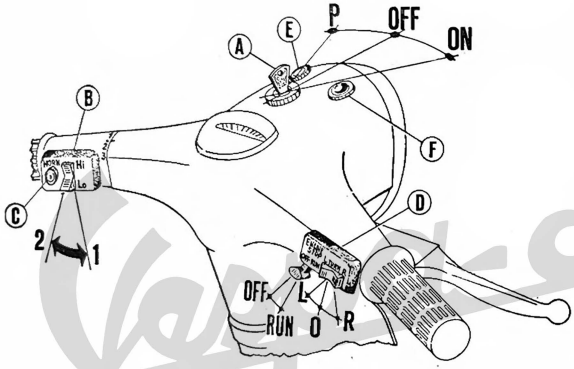

Fig. 1 - **Switch positions.**

« A » - Switch with key.

OFF = Ignition to earth (extractable key).

ON = Ignition and circuit on (Not extractable key).

P = Ignition to earth, tail light on (parking light, extractable key).

If the battery is completely discharged, disconnect it from the circuit and recharge from the outside.

When the battery is re-installed on

Notice - *When starting, with switch « A »* ON *(fig. 1), make sure that the lever of the switch «D» supplementary stop (fig. 1)* is in position « RUN ».

« B » - Switch for headlamp lights.

1 = Low beam of headlamp.

2 = High beam of headlamp.

« C » - Horn push button.

« D » - Turn signals switch and supplementary engine cutout.

O = Turn signals off.

L = Turn signals on (L. H.).

R = Turn signals on (R. H.).

OFF = H. T. coil to earth (position of engine cutout).

RUN = No contact (the engine can run).

« E » - Neutral indicator light.

« F » - High beam indicator light.

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the vehicle take care that **the breather tube of battery vapours is introduced into the proper hole on the bottom of the cowl.**

STARTING (see fig. 6 on the booklet « Operation and Maintenance »):

A: Open the fuel cock (see specific positions on fig. 3).

B: Selector neutral (neutral indicator light on).

C: Pull out the starter control rod (with cold engine).

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UNITS COMPOSING THE ELECTRIC EQUIPMENT (see fig. 2).

1. Horn - **2.** Headlamp unit, with 12 V - 30/30 W bilux-bulb, 12 V - 2 W bulb for high beam indicator light, 12 V - 3 W bulb for speedometer light and 12 V - 2 W bulb for neutral indicator light - **3.** Switch with key - **4.** Stop switch on the handlebars - **5.** Front turn signals, 12 V - 21 W bulbs - **6.** Turn signals switch with engine cutout - **7.** Switch for headlamp lights with horn push button - **8.** Stop switch (pedal) - **9.** 12 V - 42 W thermic switch - **10.** 8 A fuse - **11.** 12 V - 5.5 Ah battery - **12.** Flywheel magneto - **13.** Sparking plug - **14.** H. T. coil - **15.** L. T. socket - **16.** 12 V regulator - **17.** Neutral switch - **18.** Rear turn signals, 12 V - 21 W bulbs - **19.** Light for stop unit and licence plate, 12 V - 5/21 W bilux-bulb.

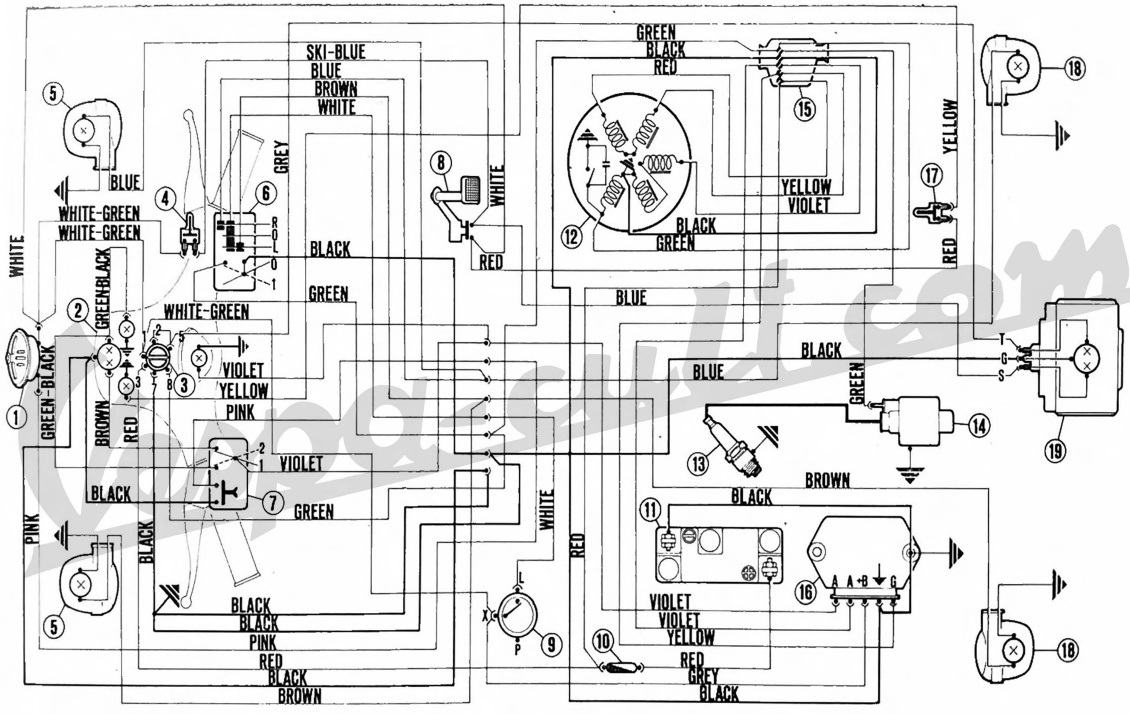

Fig. 2 - **Diagram of electrical equipment**

D: Bring throttle twist grip to idling position - Set the key of the switch « A » in the position « **ON** ».

E: Action kickstarter.

Notice - *When starting, with switch « A »* ON *(fig. 1), make sure that the lever of the switch « D » supplementary stop (fig. 1)* is in position « RUN ».

Do not use the starter when the engine is warm; as soon as the engine is running smootly bring the starter control back to its normal position.

STOPPING THE ENGINE

Before stopping the engine change to « neutral » and then turn the key of the switch « A » in the position « **OFF** ».

Notice - *In case of emergency, if the engine is to be immediately cutout, act on the switch engine cutout « D » (Fig. 1) shifting the lever in the position* « OFF ».

NEUTRAL INDICATOR LIGHT

The lighting of the indicator light «E» (fig. 1), that shows to the driver the **neutral position,** is controlled by a proper switch.

After every setting of the switch position, make sure that the indicator light correctly lights.

If necessary, for avoiding or for eliminating troubles (i. e.: if with selector in neutral the indicatod light doesn't light etc.) consult your Dealer.

BRAKES: The load carrying drums of front and rear wheel, are provided with a hole (with screw plug) that allows the inspection of the wear conditions of the brake shoes.

FUEL TAP

Specific type, with new positions, as illustrated on fig. 3.

Off : Closed.
On : Open.
Res: Reserve.

TIMING CHECKING AND SETTING

1) Place the gear change in « neutral »; remove the rubber plug fitted on the flywheel magneto slot and rotate by hand the rotor until, through the slot, the contact breaker unit is discovered.

2) The contact breaker points should start to open, as shown in figure, when the extremity of the coil is at a distance of 7÷9 mm. (0''.26÷0''.33) from the respective pole shoes.

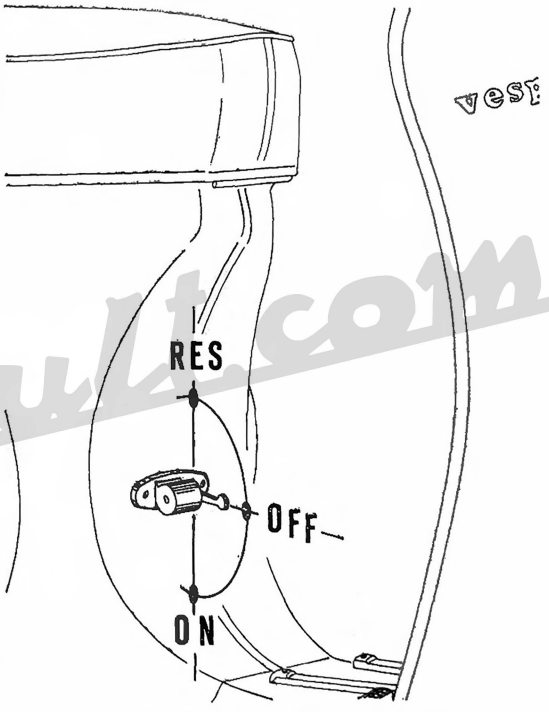

Fig. 3 - **Fuel tap positions**

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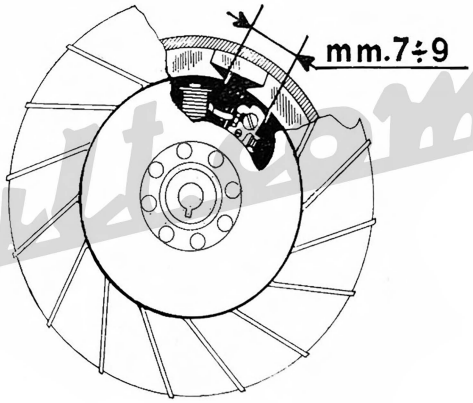
3) By rotating manually again the rotor, the **max opening** of the contact breaker points should be 0.3÷0.5 mm. (0".011 to 0".019).

4) If what is carried out at the points 2) - 3) doesn't verify, loose the screw securing the contact breaker and act by means of a screwdriver on the contact breaker until the above mentioned conditions are obtained.

After these operations tighten the securing screw.



Notice - *In order not to alter the mechanic engine timing (spark advance) don't dismantle the backplate and don't release the fasteners inside the crankcase.*

Fig. 4 - **Operations for checking the magnetic timing.**