

Vespa would like to thank you

for choosing one of its products. We have prepared this manual to help you to get the very best from your vehicle. Please read it carefully before riding the vehicle for the first time. It contains information, tips and precautions for using your vehicle. It also describes features, details and devices to assure you that you have made the right choice. We believe that if you follow our suggestions, you will soon get to know your new vehicle and it will serve you well for a long time to come. This booklet forms an integral part of the vehicle; should the vehicle be sold, it must be transferred to the new owner.

Vespa PX 125 150



The instructions given in this booklet are intended to provide a clear, simple guide to using your scooter; details are also given of routine maintenance procedures and regular checks that should be carried out on the vehicle at and **Authorized PIAGGIO Dealer or Service Centre**. The booklet also contains instructions for simple repairs. Any operations not specifically described in this booklet require the use of special tools and/or particular technical knowledge: to carry out these operations refer to any **authorized PIAGGIO Dealer of Service Centre**.



Personal safety

Failure to completely observe these instructions will result in serious risk of personal injury.



Safeguarding the environment

Sections marked with this symbol indicate the correct use of the vehicle to prevent damaging the environment.



Vehicle intactness

The incomplete or non-observance of these regulations leads to the risk of serious damage to the vehicle and sometimes even the invalidity of the guarantee.

The signs that you see on this page are very important. They are used to highlight parts of the booklet that should be read with particular care. The different symbols are used to make each topic in the manual simple and quick to locate.

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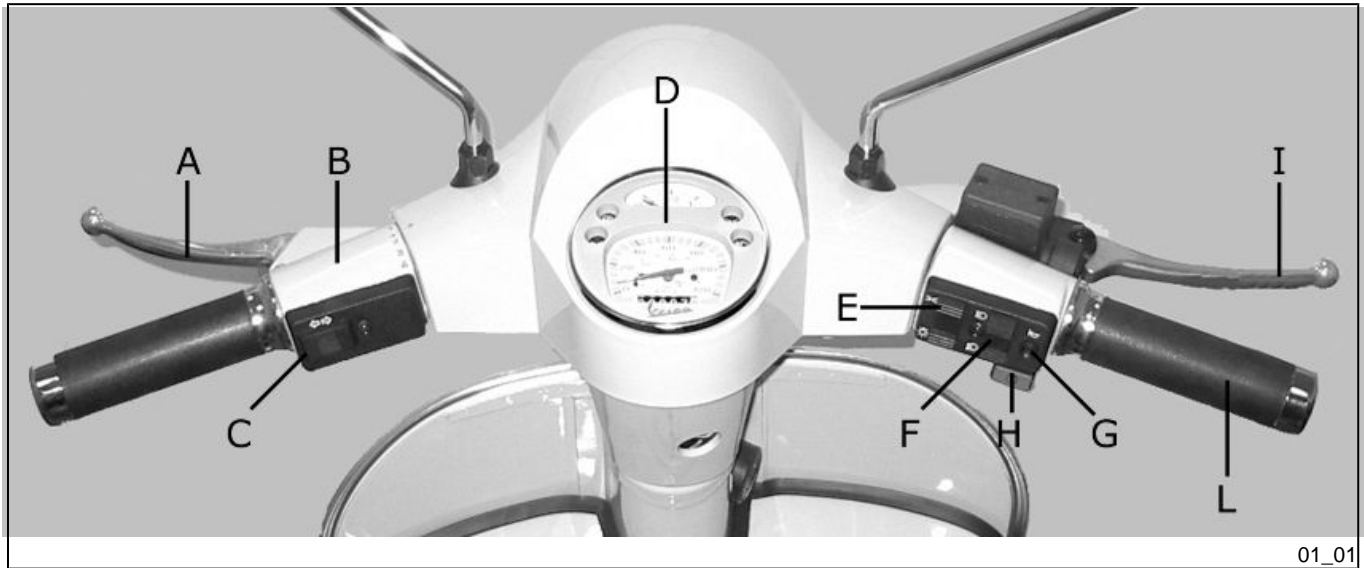
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Chap. 01
Vehicle



Dashboard (01_01)

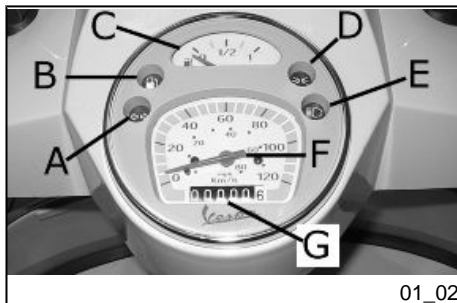
- A = Clutch control lever
- B = Gearbox control
- C = Turn indicator switch
- D = Instrument panel
- E = light switch
- F = Headlight switch

G = Horn button

H = Starter button

I = Front brake lever

L = Acceleration knob



01_02

Instruments (01_02)

A = Spia lampeggiatori

B = Spia riserva carburante

C = Indicatore livello carburante

D = Spia luci

E = Spia abbagliante

F = Tachimetro

G = Contachilometri



01_03

Key switch (01_03)

LOCK = Ignition disabled, extractable key, mechanical anti-theft device enabled.

OFF = Ignition disabled, extractable key, mechanical anti-theft device disabled.

ON = Ready to start, non-extractable key, mechanical anti-theft device disabled.

Locking the steering wheel

Turn the handlebar to the left (as far as it will go), turn the key to «**LOCK**» and remove the key.

CAUTION



DO NOT TURN THE KEY TO «LOCK» OR «KEY OFF» WHILE RIDING.

Releasing the steering wheel

Reinsert the key and turn it to «**OFF**».

CAUTION



DO NOT TURN THE KEY TO «LOCK» OR «KEY OFF» WHILE RIDING.

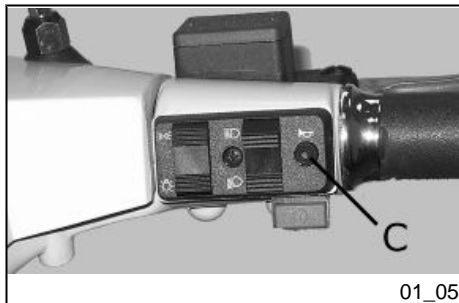


Switch direction indicators (01_04)

0 = Turn signal lights off

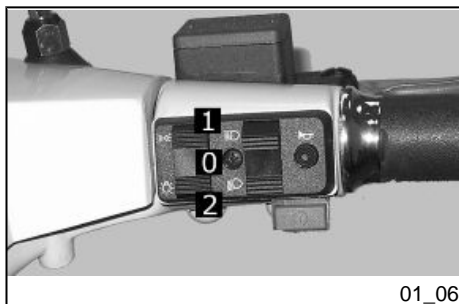
D = Turn signal lights on (RHS)

S = Turn signal lights on (LHS)



Horn button (01_05)

Push the «C» button to sound the horn.

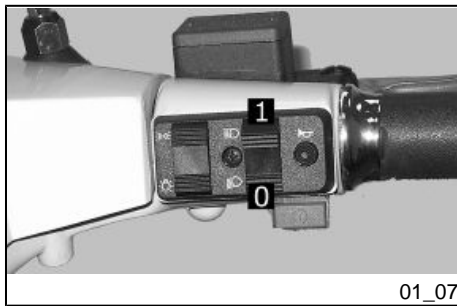


Light on/of switch (01_06)

0 = daylight running light

1 = low-beam lights

2 = Lights OFF



Light switch (01_07)

0 = Dipped beam

1 = Upper beam



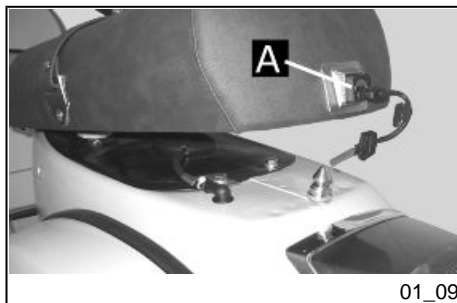
Start-up button (01_08)

Start-up button «G»

Before starting the engine by pressing button «G», pull the clutch lever in order to disarm the safety switch.

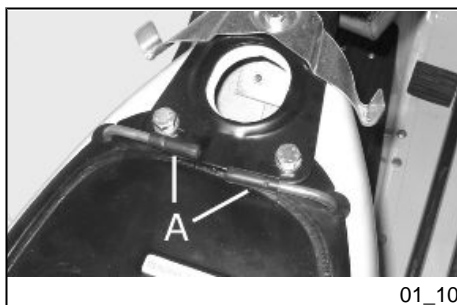
Accessing the fuel tank

Follow the saddle opening operations described in the following point. Afterwards, turn the plug counterclockwise to access the fuel tank and carry out the refilling.



Opening the saddle (01_09)

Insert the key in lock «A», and rotate it anti-clockwise. Tip the saddle forwards.



Opening the side panels. (01_10)

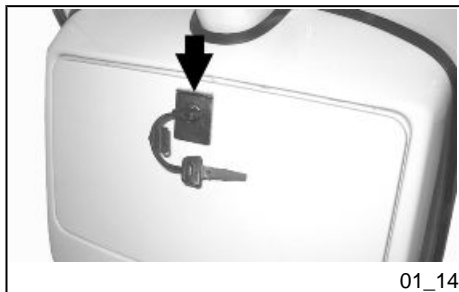
Lift the seat in order to reach the release levers: turn the lever («A» engine cowling), then pull the cowl outwards, until the forward knob projects from the corresponding hole in the chassis. Push the front end of the cowl upwards, so to rotate it about its pivot, thus releasing the fixing hook from the chassis.

WARNING

THE ENGINE COWLING MUST BE REMOVED WHILST THE ENGINE IS NOT RUNNING.

Rear top box opening (01_14)

Turn the key (completely) and press the square button downwards.



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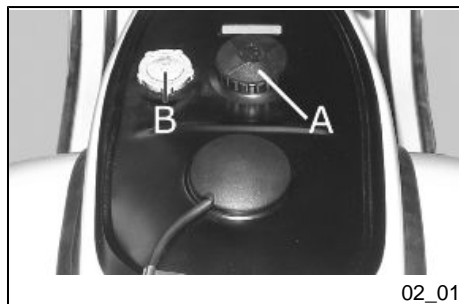


Chap. 02
Use

Checks

Before using the vehicle for the first time check:

1. That the petrol and oil tanks are full.
2. The oil level in the gear-box.
3. That the tyres are correctly inflated.
4. That the headlight, rear light and direction indicators are in working order.
5. That the front and rear brakes are in working order.
6. Fluid level in the brake master cylinder reservoir.



Refuelling (02_01, 02_02, 02_03)

Fill the fuel tank «A» with unleaded petrol with a minimum octane rating of 95. When the fuel reaches the reserve level, the warning light fitted on the instrument panel «D» lights up. Top up the oil reservoir «B» using the recommended oil. The minimum oil level is indicated by the glass warning light «C» (usually full of oil) which allows to notice an air bubble when the level reaches the reserve value. Should the 'mixer' device be removed and refitted, it needs to be bled. However, the ducts can remain without oil. After these operations, refill the fuel tank with 3 l of a mixture with 2% of the recommended oil. Subsequent refuelling must be performed using petrol only.



SWITCH OFF THE ENGINE BEFORE REFUELLING WITH PETROL.

PETROL IS HIGHLY INFLAMMABLE.

DO NOT SMOKE AND KEEP NAKED FLAMES AT A DISTANCE: FIRE HAZARD.

DO NOT INHALE FUEL FUMES.

DO NOT ALLOW PETROL TO COME INTO CONTACT WITH THE HOT ENGINE.



02_02

CAUTION

USING OILS OTHER THAN THOSE RECOMMENDED CAN SHORTEN THE LIFE OF THE ENGINE.

Recommended products**AGIP CITY TEC 2T***Mixer oil*

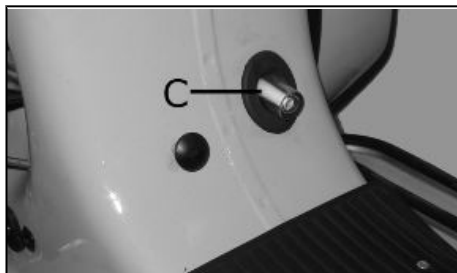
synthetic oil for 2-stroke engines: JASO FC, ISO-L-EGD

Characteristic**Fuel tank capacity**

about 8 litres (of which 2.1 l is reserve)

Mixer oil tank capacity:

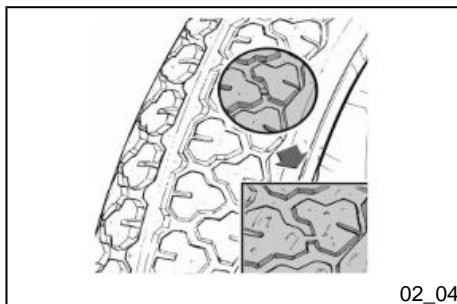
1.5 to 1.7 l (reserve of ~ 0.400 l included)



02_03

Tyre pressure (02_04)

Periodically (approx. every 500 km) inspect the tyre treads and check their inflation pressure. The tyres are equipped with a wear indicator, and they must be replaced as soon as such indicators become visible on the tread. Ensure the sidewalls show no sign of cracks and the tread is not abnormally worn; if necessary refer to an authorised service station or workshop to carry out the replacement.



02_04

CAUTION

TYRE PRESSURE SHOULD BE CHECKED WHEN TYRES ARE COLD. INCORRECT TYRE PRESSURE CAUSES ABNORMAL TYRE WEAR AND MAKES RIDING DANGEROUS.

TYRES MUST BE REPLACED WHEN THE TREAD REACHES THE WEAR LIMITS SET FORTH BY LAW.

Characteristic

Tyre pressure (front wheel)

1,3 bar

Rear tyre pressure

1.8 bar

Rear wheel pressure (rider and passenger):

2.3 bar

**Running in (02_05)****WARNING**

DURING THE FIRST 1000 KM DO NOT RIDE THE VEHICLE OVER 80% OF ITS MAXIMUM SPEED. AVOID TWISTING THE THROTTLE GRIP FULLY OR KEEPING A CONSTANT SPEED ALONG LONG SECTIONS OF ROAD. AFTER THE FIRST 1000 KM, GRADUALLY INCREASE SPEED UNTIL REACHING THE MAXIMUM PERFORMANCE.

Starting up the engine (02_06)

A = Open the fuel tap

B = Set the gear shift onto "neutral"

C = Pull the choke lever (with engine cold)

D = Maintain the throttle at idle.

E = Insert the key in the ignition switch, and turn it onto the "ON" position (Stand-by).

F = Press the starter button while pulling the clutch lever, «G».

CAUTION



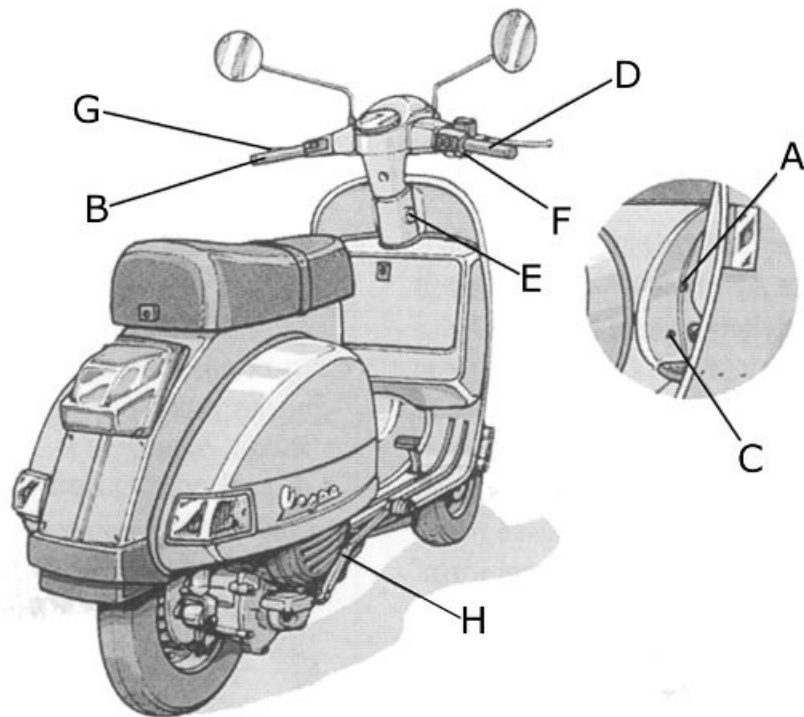
DO NOT START-UP THE ENGINE IN CLOSED AREAS BECAUSE EXHAUST GASES ARE TOXIC.

CAUTION

IN ORDER TO START THE ENGINE, IT IS NECESSARY TO PULL THE CLUTCH LEVER, «G», BEFORE PRESSING STARTER BUTTON, «F», IN ORDER TO DISARM THE SAFETY SWITCH.

CAUTION

DO NOT USE THE CHOKE DEVICE WITH ENGINE WARM; ONCE THE ENGINE IS STARTED PUSH THE CHOKE LEVER BACK TO ITS INITIAL POSITION.



02_06

Precautions



NEVER STRESS THE ENGINE AT LOW TEMPERATURES IN ORDER TO AVOID POSSIBLE DAMAGE. BE CAREFUL NEVER TO EXCEED THE MAXIMUM SPEED WHILE RUNNING DOWNHILL, IN ORDER TO AVOID DAMAGING THE ENGINE.



AFTER A LONG DISTANCE COVERED AT THE MAXIMUM SPEED, DO NOT STOP THE ENGINE IMMEDIATELY, BUT LET IT TO IDLE FOR A FEW SECONDS.

Difficult start up

In the event of difficulties, it is possible to proceed as follows:

- 1. Wet engine.** Follow the same procedure indicated above. Give full throttle and press starter button, «F», for 5-6 times. Do not attempt starting the vehicle for excessively long periods of time using the starter motor.
- 2. Weak battery or inefficient starter motor.** Rest the vehicle on its centre stand; turn key switch «E» onto "ON" position and use the kick-starter, «H».
- 3. Push-start.** Turn the key-switch onto the "ON" position, engage the second gear, pull the clutch, push the vehicle and release the clutch as it gains sufficient speed, hence immediately pull the clutch as soon as the engine starts running. Such procedure requires a considerable amount of expertise and may only be attempted by carefully following the above instructions, and on a flat road with no traffic.

If the vehicle still fails to start, please contact your nearest **Piaggio Authorised Service Centre**.

CAUTION



ALWAYS PLACE THE VEHICLE ON ITS STAND BEFORE KICK STARTING.

Stopping the engine

Before shutting the engine down, move into "neutral"; hence turn key-switch «E» onto the «OFF» position to stop the engine (the key may now be removed).

Catalytic silencer

CAUTION



WHEN PARKING THE VEHICLE, DUE TO THE HIGH TEMPERATURES THE CATALYTIC CONVERTER CAN REACH, ALWAYS BE CAREFUL THAT THE MUFFLER DOES NOT COME INTO CONTACT WITH FLAMMABLE MATERIALS, TO AVOID SERIOUS BURNS.

CAUTION



DO NOT SHUT OFF THE ENGINE WHILE THE VEHICLE IS MOVING. UNBURNED FUEL COULD ENTER THE CATALYTIC CONVERTER AND BURN, CAUSING THE CONVERTER TO OVERHEAT AND POSSIBLY DESTROYING IT.



02_07

Safe driving (02_07)

Below are some simple suggestions which will allow you to ride your vehicle more comfortably and more safely during your daily routine. Your riding skills and your knowledge of the vehicle constitute the basis of safe riding. You are therefore advised to practise with your vehicle in empty roads until you have become fully acquainted with it.

1. Before driving off, remember to pu on your helmet and fasten it correctly.
2. To pull away, with the engine at idle select first gear and slowly release the clutch while opening the throttle at the same time.
3. Reduce speed and drive prudently on bad roads.
4. After having driven over a long section of wet roads without having used the brakes, the braking effect will initially be smaller. In these driving conditions it is best to activate the brakes periodically.
5. Do not brake hard on a wet surface, on dirt tracks or on any slippery road surface.
6. When braking, use both front and rear brakes, so to distribute the braking action evenly on both wheels.
7. Avoid driving off by mounting the vehicle when resting on the support. In any case, the rear wheel should not be turning when in comes into contact with the ground, in order to avoid abrupt departures.
8. If the vehicle is often ridden on sandy roads, mud, snow mixed with salt, etc, it is highly recommended to clean the brake disc frequently, using a neutral detergent, in order to prevent abrasive build-ups from forming inside the cooling holes and causing the brake pads to undergo early wear.
9. Do not downshift when the engine is at high revs as this will cause it to over-rev and, in the long run, may damage the engine.
10. When riding downhill do not move into neutral, reduce your speed by shutting the throttle. Use both brakes to maintain your speed under control without applying them for long periods of time in order to prevent them from overheating, and hence decrease their efficiency. If the gradient is particularly steep, it is advisable to downshift so to exploit the engine braking action.

11. To quickly gain speed with the engine at low revs, i.e. when overtaking, downshift, so to immediately obtain the amount power required.

12. When climbing steep hills, downshift in order to always have sufficient power available.

CAUTION

ALWAYS RIDE WITHIN YOUR LIMITS RIDING UNDER THE INFLUENCE OF ALCOHOL OR OTHER DRUGS AND CERTAIN MEDICINES IS EXTREMELY DANGEROUS.

CAUTION

ANY ELABORATION THAT MODIFIES THE VEHICLE'S PERFORMANCES, SUCH AS TAMPERING WITH ORIGINAL STRUCTURAL PARTS IS STRICTLY FORBIDDEN BY LAW, AND RENDERS THE VEHICLE NO LONGER CONFORMING TO THE APPROVED TYPE AND DANGEROUS FOR RIDING.

CAUTION

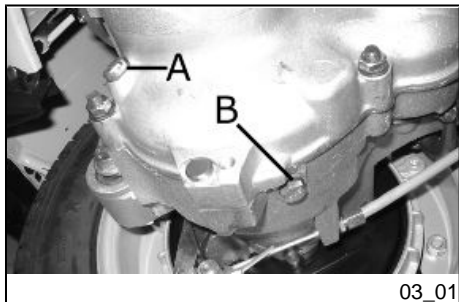
DO NOT ADJUST THE MIRRORS WHILE RIDING. THIS COULD CAUSE YOU TO LOOSE CONTROL OF THE VEHICLE.

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Chap. 03
Maintenance



Gearbox oil level (03_01)

Check for oil inside the gearbox; with upright vehicle the oil should barely reach the refilling hole «A». For oil change empty the crankcase through the drainage hole «B». Pour in some new oil, run the engine for a few seconds and empty the crankcase again. Pour 250 g of new oil in the oil refilling hole «A» (until barely reaching the refilling hole).

CAUTION



RUNNING THE ENGINE WITH INSUFFICIENT LUBRICATION OR WITH THE WRONG LUBRICANTS MAY INCREASE WEAR AND TEAR ON THE MOVING PARTS AND MAY CAUSE SERIOUS DAMAGE.

CAUTION



USED OILS CONTAIN SUBSTANCES HARMFUL TO THE ENVIRONMENT. FOR OIL CHANGE, CONTACT AN AUTHORISED SERVICE CENTRE WHICH IS EQUIPPED TO DISPOSE OF USED OILS IN AN ENVIRONMENTALLY FRIENDLY AND LEGAL WAY.

Recommended products

AGIP GEAR 80W-90

gearbox oil

SAE 80W-90 oil complying with API GL4 specifications

Gearbox oil

Gearbox oil

capacity ~ 250 cm³

Tyres (03_02)

Periodically (approx. every 500 km) inspect the tyre treads and check their inflation pressure. The tyres are equipped with a wear indicator, and they must be replaced as soon as such indicators become visible on the tread. Ensure the sidewalls show no sign of cracks and the tread is not abnormally worn; if necessary refer to an authorised service station or workshop to carry out the replacement.

CAUTION



TYRE PRESSURE SHOULD BE CHECKED WHEN TYRES ARE COLD. INCORRECT TYRE PRESSURE CAUSES ABNORMAL TYRE WEAR AND MAKES RIDING DANGEROUS.

TYRES MUST BE REPLACED WHEN THE TREAD REACHES THE WEAR LIMITS SET FORTH BY LAW.

Characteristic

Tyre pressure (front wheel)

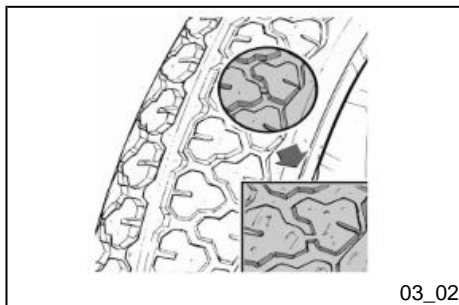
1,3 bar

Rear tyre pressure

1.8 bar

Rear wheel pressure (rider and passenger):

2.3 bar





03_03

Spark plug dismantlement (03_03)

Remove the engine cowling, detach the spark plug cap and loosen the spark plug using the supplied box-spanner. When refitting, screw the spark plug back in by hand, at the correct angle; use the box-spanner for tightening.

CAUTION



THE SPARK PLUG MUST BE REMOVED WHEN THE ENGINE IS COLD. THE USE OF SPARK PLUGS OF DIFFERENT THERMAL GRADE FROM THAT REQUIRED OR WITH INAPPROPRIATE THREADS MAY SERIOUSLY DAMAGE THE ENGINE.

CAUTION

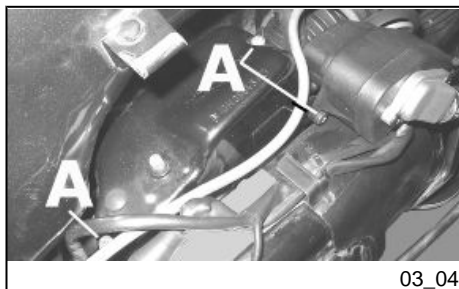


THE USE OF SPARK PLUGS OTHER THAN THOSE RECOMMENDED OR A SHIELDLESS SPARK PLUG CAP COULD CAUSE DISTURBANCES TO THE SYSTEM.

Characteristic

Recommended spark plug

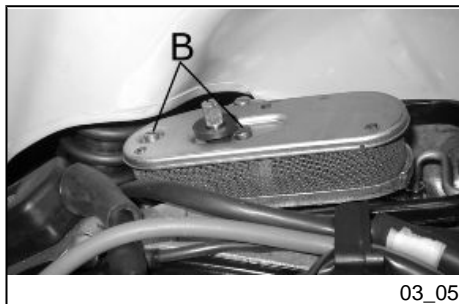
CHAMPION RL82C



03_04

Removing the air filter (03_04, 03_05)

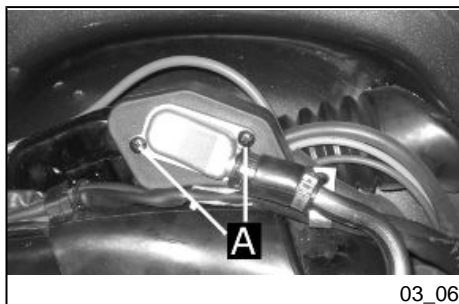
Remove the engine cowl and the filter cover, by removing the 3 fixings, «A». Then loosen the 2 fastening screws, «B». Carefully damp the filter with a petrol-oil mixture with a 10:1 ratio and dry it with compressed air.



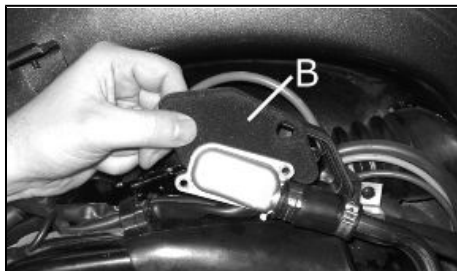
03_05

Secondary air system (03_06, 03_07, 03_08)

Remove the two screws «A» from the aluminium SAS cover. Release the metal tube from the rubber housing on the cover without extracting the tube from the cover/sleeve. Remove the lamella and plastic cover, extract the sponge and wash it in water and soap. Dry it with compressed air before refitting it, making sure to correctly fit the lamella in the housing on the two plastic and aluminium covers. Every time the filter is removed, replace the housing O-ring seal in the cover.



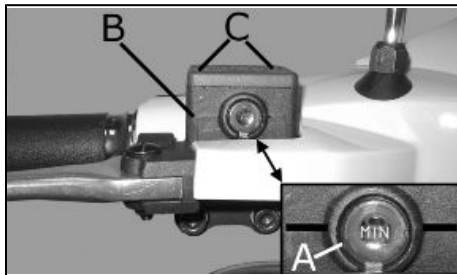
03_06



03_07



03_08



03_09



FOR THIS OPERATION, PLEASE CONTACT AN AUTHORISED PIAGGIO SERVICE CENTRE

Remove the sponge and wash it with soap and water. Dry it with compressed air before refitting.

Checking the brake oil level (03_09)

The brake reservoir is fitted with a see-through inspection hole, «**A**»; this allows to inspect the brake fluid level inside the reservoir, and hence the circuit. When inspection hole «**A**» is completely filled with fluid, the level is above the minimum. As soon as this lowers, even by a few millimetres, the fluid level is to be considered at the minimum allowable. When no fluid is visible through the inspection hole, the level is below the minimum. A reduction of the brake fluid level may be caused by worn pads. In the event that the fluid level is found to be below the minimum, you are advised to contact your nearest **Authorised Piaggio Service Station**, so that a thorough inspection of your vehicle's braking system may be carried out. Should it be necessary to top-up the fluid level, please follow the instructions given below. Lift the reservoir

cap, «**B**», after removing the two fastening screws, «**C**»; hence, top-up the reservoir as required (the fluid level must always be above the minimum). The inspection of the fluid level must be carried out with the reservoir perfectly horizontal, i.e. with the handlebars straight and the vehicle perpendicular to the ground.

CAUTION



AVOID CONTACT OF BRAKE FLUID WITH EYES, SKIN, AND CLOTHING. IN CASE OF CONTACT, RINSE WITH WATER. THE BRAKING CIRCUIT FLUID IS HYGROSCOPIC, THAT IS, IT ABSORBS HUMIDITY FROM THE SURROUNDING AIR. IF THE HUMIDITY IN THE BRAKING FLUID EXCEEDS A CERTAIN VALUE, IT WILL LEAD TO INEFFICIENT BRAKING. NEVER USE BRAKING FLUID KEPT IN CONTAINERS THAT HAVE ALREADY BEEN OPENED, OR PARTIALLY USED.

WARNING



ONLY USE DOT 4 CLASS BRAKE FLUIDS. BRAKING CIRCUIT FLUIDS ARE HIGHLY CORROSIVE. MAKE SURE THAT IT DOES NOT COME INTO CONTACT WITH THE PAINTWORK

.

Recommended products

AGIP BRAKE 4

Brake fluid

FMVSS DOT 4 Synthetic fluid



Battery (03_10)

To access the battery it is necessary to remove the LHS cowling. The battery is the electrical device which requires the most frequent inspections and meticulous maintenance.

CAUTION



IN ORDER TO AVOID DAMAGING THE ELECTRIC SYSTEM, NEVER DISCONNECT THE WIRING WHILE THE ENGINE IS RUNNING. DO NOT TIP THE VEHICLE TOO MUCH IN ORDER TO AVOID DANGEROUS LEAKAGE OF THE BATTERY ELECTROLYTE

CAUTION



ELECTROLYTE CONTAINS SULPHURIC ACID: AVOID CONTACT WITH EYES, SKIN AND CLOTHES. IN CASE OF ACCIDENTAL CONTACT, RINSE WITH ABUNDANT WATER AND CONSULT A DOCTOR.

WARNING



USED BATTERIES ARE HARMFUL FOR THE ENVIRONMENT. COLLECTION AND DISPOSAL SHOULD BE CARRIED OUT IN COMPLIANCE WITH REGULATIONS IN FORCE.

Use of a new battery

Ensure that the terminals are connected correctly and check voltage.

CAUTION

DO NOT REVERSE THE POLARITY: RISK OF SHORT CIRCUIT AND DAMAGE TO THE ELECTRICAL SYSTEM.

WARNING

USED BATTERIES ARE HARMFUL FOR THE ENVIRONMENT. COLLECTION AND DISPOSAL SHOULD BE CARRIED OUT IN COMPLIANCE WITH REGULATIONS IN FORCE.

Checking the electrolyte level

Check regularly that the electrolyte is at maximum level. Fill up only with distilled water. If the battery needs filling too frequently check the electrics: the battery is probably working in overload conditions which will lead to rapid deterioration.

Long periods of inactivity

Battery performance will decrease if the vehicle is not used for a long time. This is the result of the natural phenomenon of battery discharging, and may be due to residual absorption by vehicle components with constant power consumption. Poor battery performance may also be due to environmental conditions and the cleanliness of the poles. In order to avoid difficult starts and/or irreversible damage to the battery, follow any of these steps:

- At least once a month start the engine and run it slightly above idle speed for 10-15 minutes. This keeps all the engine components, as well as the battery, in good working order.

- Take your vehicle to a garage (as indicated in the «Vehicle not used for extended periods» section) to have the battery removed. Have the battery cleaned, charged fully and stored in a dry, ventilated place. Recharge **at least once every two months**.

N.B.

THE BATTERY MUST BE CHARGED WITH A CURRENT EQUAL TO 1/10 OF THE RATED CAPACITY OF THE BATTERY AND FOR NOT LONGER THAN 10 HOURS. CONTACT AN AUTHORISED SERVICE CENTRE TO CARRY OUT THIS OPERATION SAFELY. WHEN REFITTING THE BATTERY MAKE SURE THE LEADS ARE CORRECTLY CONNECTED TO THE TERMINALS.

WARNING

DO NOT DISCONNECT THE BATTERY CABLES WITH THE ENGINE RUNNING, THIS CAN CAUSE IRREPARABLE DAMAGE TO THE VEHICLE'S ELECTRONIC CONTROL UNIT.

WARNING

USED BATTERIES ARE HARMFUL FOR THE ENVIRONMENT. COLLECTION AND DISPOSAL SHOULD BE CARRIED OUT IN COMPLIANCE WITH REGULATIONS IN FORCE.



03_11

Fuses (03_11)

Both starting system and horn are protected by a 7.5 A fuse «A» placed on the battery mounting left side. Before replacing the blown fuse, find and solve the problem that caused it to blow. Do not replace the fuse with any alternative form of conductor

CAUTION

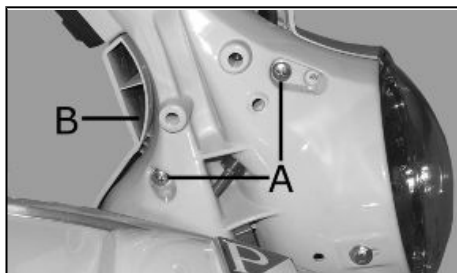


BEFORE REPLACING A BLOWN FUSE, FIND AND SOLVE THE FAILURE THAT CAUSED IT TO BLOW. NEVER TRY TO REPLACE THE FUSE WITH ANY OTHER MATERIAL (E.G., A PIECE OF ELECTRIC WIRE).

CAUTION



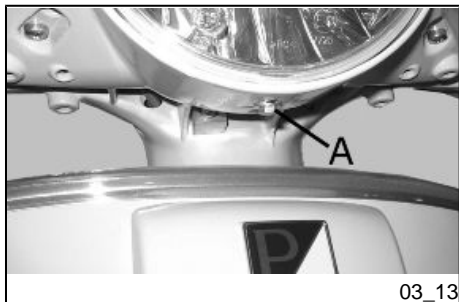
MODIFICATIONS OR REPAIRS TO THE ELECTRICAL SYSTEM, PERFORMED INCORRECTLY OR WITHOUT STRICT ATTENTION TO THE TECHNICAL SPECIFICATIONS OF THE SYSTEM CAN CAUSE MALFUNCTIONING AND RISK OF FIRE.



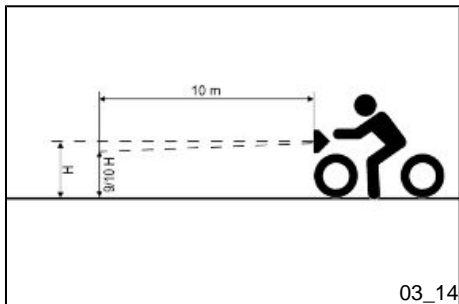
03_12

Front light group (03_12)

To reach the headlight bulbs, remove the top handlebar cover, as described below. After removing the driving mirrors, loosen the two screws, «A», and the two opposite screws underneath the handlebar. Lift cover «B» and release the two springs which allow extracting the bulb socket from its housing. To remove the bulbs, push downwards and rotate them anticlockwise. To replace warning light bulbs, it is sufficient to pull them off.



03_13



03_14

N.B.

IF MISTING IS NOTICED ON THE INSIDE OF THE HEADLAMP GLASS, THIS DOES NOT INDICATE A FAULT AND IS ATTRIBUTABLE TO HUMIDITY AND/OR TO LOW TEMPERATURES.

THE PHENOMENON SHOULD QUICKLY DISAPPEAR WHEN THE LIGHT IS SWITCHED ON.

THE PRESENCE OF DROPS OF WATER, ON THE OTHER HAND, COULD INDICATE THAT WATER IS INFILTRATING. CONTACT THE AFTER-SALES SERVICE NETWORK.

Headlight adjustment (03_13, 03_14)

Proceed as follows:

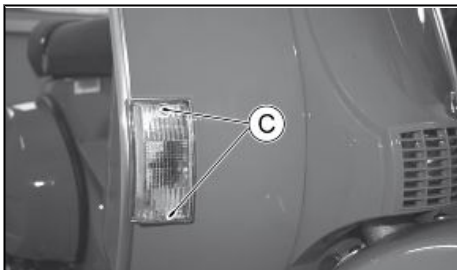
1. Place the vehicle in running order and with the tyres inflated to the prescribed pressure, on a flat surface 10 m away from a white screen situated in a shaded area, making sure that the longitudinal axis of the vehicle is perpendicular to the screen;
2. Turn on the headlight and check that the borderline of the projected light beam on the screen is no higher than 9/10 or lower than 7/10 of the distance from the ground to the centre of the vehicle's headlamp;
3. If otherwise, adjust the right headlight with screw «A».

N.B.

THE ABOVE PROCEDURE COMPLIES WITH THE EUROPEAN STANDARDS REGARDING MAXIMUM AND MINIMUM HEIGHT OF LIGHT BEAMS. REFER TO THE STATUTORY REGULATIONS IN FORCE IN EVERY COUNTRY WHERE THE VEHICLE IS USED.

Front direction indicators (03_15)

Use a phillips screwdriver to remove screws «C». The bulbs have a bayonet fitting: to remove , press and twist anti-clockwise through about 30°. Fit the new bulb(s) and then refit the indicator lenses by performing the above steps in reverse order.



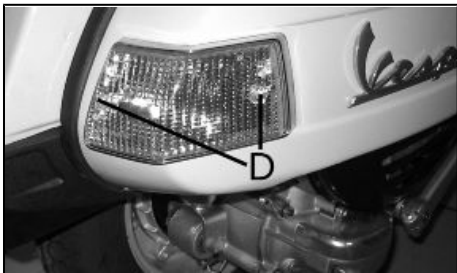
03_15

Rear optical unit (03_16)

To reach the taillight bulbs, it is necessary to remove the 2 fixing screws, «E».



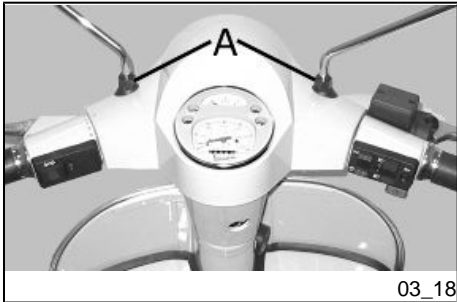
03_16



03_17

Rear turn indicators (03_17)

Use a phillips screwdriver to remove screws «D». The bulbs have a bayonet fitting: to remove , press and twist anti-clockwise through about 30°. Fit the new bulb(s) and then refit the indicator lenses by performing the above steps in reverse order.



03_18

Rear-view mirrors (03_18)

To adjust the stems, loosen nuts «A» with an open spanner (17 mm); hence orientate the stems and tighten the nuts. The driving mirrors are mounted onto the stems via a universal joint. It is therefore possible to adjust the mirrors by manually pushing them in the desired position.

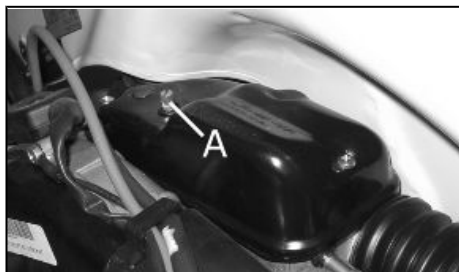
Idle adjustment (03_19)

The idle may be adjusted via screw «A», located on the carburettor. The throttle adjuster may be found on the carburettor body; adjust the throttle only in the event of servicing operations.

WARNING



IDLE SPEED MUST BE ADJUSTED WHEN THE ENGINE IS VERY HOT. BEFORE THIS OPERATION, MAKE SURE THAT THE THROTTLE GRIP HAS THE RECOMMENDED CLEARANCE. IF CLEARANCE IN THE THROTTLE CONTROL TRANSMISSION NEEDS ADJUSTING TAKE YOUR SCOOTER TO AN AUTHORISED DEALER OR SERVICE CENTRE.



03_19



Front disc brake (03_20)

The brake disc and pad wear is automatically compensated, therefore it has no effect on the functioning of the front and rear brakes. For this reason it is not necessary to adjust the brakes. An excessively elastic brake lever stroke may indicate the presence of air in the braking circuit or a failure in the braking system. In this case, mainly due to the importance of brakes to guarantee safe riding conditions, the vehicle should be taken to a **PIAGGIO Dealer or Authorised Service Centre**.

CAUTION



BRAKING SHOULD BEGIN AFTER ABOUT 1/3 OF THE BRAKE LEVER STROKE.

CAUTION



HAVE THE BRAKE PADS CHECKED BY THE DEALER ACCORDING TO THE CHECKS SPECIFIED IN THE SCHEDULED MAINTENANCE TABLE. HOWEVER, IN THE EVENT OF NOISES COMING FROM THE FRONT AND/OR REAR BRAKING SYSTEM DURING OPERATION, IT IS ADVISABLE TO HAVE THE BRAKING SYSTEM CHECKED BY AN AUTHORISED SERVICE CENTRE OR DEALER. AFTER REPLACING THE BRAKE PADS, DO NOT USE THE SCOOTER UNTIL YOU HAVE OPERATED THE BRAKE LEVER SEVERAL TIMES IN ORDER TO ALLOW THE PLUNGERS TO SETTLE AND THE LEVER STROKE TO BE SET TO THE CORRECT POSITION.

CAUTION

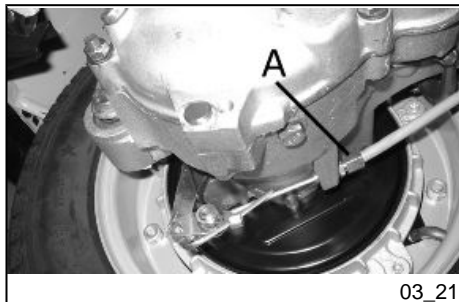


THE PRESENCE OF SAND, MUD, SNOW MIXED WITH SALT, ETC. ON THE ROAD, CAN DRASTICALLY REDUCE THE LIFE OF THE BRAKE PADS. WHEN RIDING THE VEHICLE ON ROADS WITH THE ABOVE MENTIONED CHARACTERISTICS, WE RECOMMEND TO CLEAN THE BRAKE DISC FREQUENTLY WITH A NON-AGGRESSIVE DETERGENT IN ORDER TO AVOID THE FORMA-

TION OF ABRASIVE BUILD-UPS IN THE HOLES, WHICH COULD RESULT IN EARLY WEAR OF BRAKE PADS.

Rear drum brake (03_21)

Tighten or loosen adjusting screw «A», bearing in mind that, when the pedal is released, **the wheel must spin freely.**



03_21

Puncture

In the case of a puncture you may carry out an emergency repair with the use of an "inflate and repair" type cylinder. For a definitive repair turn to an **Authorized PIAGGIO Dealer or Service Centre**. The replacement of a tyre leads to the dismantlement of the relative wheel. For these operations turn to a **Authorized PIAGGIO Dealer or Service Centre**.

CAUTION



TO USE THE "INFLATE AND REPAIR" SPRAY CAN PROPERLY, FOLLOW THE INSTRUCTIONS ON THE PACKAGING.

WARNING

THE WHEELS FITTED WITH TYRES SHOULD ALWAYS BE BALANCED. RIDING THE VEHICLE WITH VERY LOW TYRE PRESSURE OR WITH INCORRECTLY BALANCED TYRES CAN LEAD TO DANGEROUS STEERING VIBRATIONS.



03_22

Periods of inactivity (03_22)

We recommend carrying out the following operations:

1. Clean the vehicle thoroughly and then cover it with a canvas;
2. With engine off and piston at the bottom dead centre, remove the spark plug, fill with 1÷2 cc oil (larger amounts are dangerous for the engine itself). Actuate the start-up button 1-2 times for about 1 second, letting the engine perform a few revolutions, then replace the spark plug;
3. Use up all the vehicle's fuel; spread antirust grease on the unpainted metal parts; keep the wheels lifted above the ground by resting the framework on two wooden wedges;
4. As far as regards the battery, follow the instructions in paragraph «Battery»

Recommended products**AGIP CITY TEC 2T***Mixer oil*

synthetic oil for 2-stroke engines: JASO FC, ISO-L-EGD

Cleaning the vehicle

Use a low pressure water jet in order to soften the dirt and mud deposited on painted surfaces. Once softened, mud and dirt must be removed with a soft sponge for body-

work soaked with water and shampoo (2-4% of shampoo in water). Then rinse abundantly with water, and dry with a shammy cloth. Any polishing with silicon wax must always be preceded by washing

CAUTION

DETERGENTS CAN POLLUTE WATER. THE VEHICLE MUST BE WASHED AT A WASH STATION EQUIPPED WITH A SPECIAL WATER PURIFICATION SYSTEM.

WARNING

THE USE OF A HIGH-PRESSURE WATER JET IS STRONGLY DISCOURAGED FOR ANY ENGINE CLEANING OPERATION; HOWEVER, IF NO OTHER MEANS ARE AVAILABLE, IT IS THEN NECESSARY TO:

- **ONLY USE A FANLIKE SPRAY JET.**
- **DO NOT PLACE THE NOZZLE CLOSER THAN 60 CM.**
- **DO NOT USE WATER AT TEMPERATURES OVER 40°C.**
- **DO NOT USE HIGH-PRESSURE WATER JETS.**
- **DO NOT STEAM WASH.**
- **DO NOT AIM THE JET AT: THE CARBURETTOR, THE ELECTRIC CABLES, THE SLOT DIFFUSERS IN THE TRANSMISSION COVER AND THE SCROLL COVER.**

WARNING

NEVER WASH THE SCOOTER IN DIRECT SUNLIGHT, ESPECIALLY DURING SUMMER WHEN THE BODYWORK IS STILL HOT, AS THE SHAMPOO CAN DAMAGE THE PAINTWORK IF IT DRIES BEFORE BEING RINSED OFF. NEVER USE CLOTHS SOAKED IN PETROL, DIESEL OIL OR KEROSENE FOR CLEANING

THE PAINTED OR PLASTIC SURFACES SO AS NOT TO DAMAGE THE LUSTRE FINISH OR ALTER THE MECHANICAL PROPERTIES.

WARNING



To avoid the appearance of oxidations, wash the vehicle every time it is used in certain areas or in special conditions of:

- Environmental / seasonal conditions: use of salt, de-icer chemical products on the road in winter.
- Air pollution: city and/or industrial areas.
- Salinity and humidity of the atmosphere: marine areas, hot and wet weather.

WARNING



- Avoid that deposits remain on the bodywork, industrial and pollutant residual dust, tar spots, dead insects, bird droppings, etc.
- Do not park the vehicle under the trees. In some seasons, as from the trees may fall residues, resins, fruits or leaves that contain chemicals which are harmful to the paintwork.

START-UP DIFFICULTIES

No fuel in tank

Refuel

Filters, jets or carburettor body blocked or dirty, fuel filter or fuel tubes blocked.	Turn to an Authorized Piaggio Service Centre.
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Battery flat	Recharge the battery.
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IGNITION PROBLEMS

No spark from spark plug. Due to the presence of high voltage, this element should only be checked by an expert.	Contact an Authorised Piaggio Service Centre
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IRREGULAR IGNITION

Loose spark plug. Loose cylinder head, worn piston seal rings.	Tighten the spark plug.
	Turn to an Authorized Piaggio Service Centre .

HIGH CONSUMPTION AND LOW PERFORMANCE

Air filter blocked or dirty.	Clean with water and shampoo and impregnate with petrol and specific oil («Air filter removal» section)
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INSUFFICIENT BRAKING

Rear brake jaws worn	Turn to an Authorized Piaggio Service Centre .
Greasy disc. Worn pads	Contact an Authorised Piaggio Service Centre
Air in the front and rear brake circuits	Contact an Authorised Piaggio Service Centre

INEFFICIENT SUSPENSION

Inefficient shock absorbers, oil leakage, deteriorated end of stroke buffers.	Contact an Authorised Service Centre
---	---

NOISY EXHAUST

Sas air intake port tube detached or incorrectly connected or secondary valve damaged.	Turn to an Authorized Piaggio Service Centre .
--	---

Vespa PX 125 150

Vespa®



Chap. 04
Technical data

TECHNICAL DATA 125

Version	125
ENGINE	Single cylinder 2-stroke
Bore x stroke	52.5 x 57 mm
Engine capacity 125 cc	123 cm ³
Compression ratio	8.5 to 1
Ignition advance (before TDC)	18° ± 1°
DELL'ORTO carburettor	SI 20/20 D
Recommended spark plug	CHAMPION RL82C
Max. speed	84 km/h

TECHNICAL DATA 150

Version	150 cm ³
ENGINE	Single cylinder 2-stroke
Bore x stroke	57.8 x 57 mm
Engine capacity	150 cm ³
Compression ratio	8 to 1
Ignition advance (before TDC)	18° ± 1°
DELL'ORTO carburettor	SI 20/20 D

Recommended spark plug	CHAMPION RL82C
Max. speed	88 km/h

TECHNICAL DATA 125/150

Overall width	745 mm
Overall length	1780 mm
Wheelbase	1,250 mm
Maximum height	1110 mm
Fuel system	With oil petrol mixture through carburettor.
Exhaust silencer	Expanding, absorption type with double catalytic converter.
Electronic ignition	Electronic ignition device with incorporated HV coil.
Lubrication	Engine separated lubrication (piston, cylinder, crankshaft, main bearings) by means of the mixture oil supplied by a mixer pump.
Cooling	Forced air by a centrifugal fan.
Front brake	Ø 200-mm disc brake with hydraulic control activated by handlebar right-side lever.
Rear brake	of the drum type (150 mm diameter) with expanding shoes, mechanically operated by means

	of the pedal on the footrest (vehicle right side).
Wheels	Interchangeable with 10x2.10" forged steel sheet rims.
Front tyre	3.50 x 10" 51 J
Rear tyre	3.50 x 10" 51 J
Clutch	Multiple discs in oil bath.
Gearbox	With 4 speeds, with direct drive gears.
Suspension	Steering tube articulated on the front wheel carrier clamp; helicoidal spring suspensions and double-acting hydraulic shock absorber.
Chassis	Monocoque bodywork, made of forged steel sheet, with open and closed form.
Total kerb weight	120 ± 6 kg
Maximum load	Rider, passenger and 10 kg luggage.



04_01



Toolkit (04_02)

One box-spanner (13-21 mm); one twin screwdriver.

The tools are inside a suitable pouch in the front top box.

Vespa PX 125 150

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Chap. 05
Spare parts and
accessories



05_01

Warnings (05_01)

WARNING



TO PREVENT ACCIDENTS AND TO GUARANTEE PROPER STABILITY, PERFORMANCE AND SAFETY, RIDE THE VEHICLE VERY CAREFULLY WHEN IT IS FITTED WITH ACCESSORIES OR WITH UNUSUAL LOADS.

WARNING



IT IS ALSO RECOMMENDED THAT ORIGINAL PIAGGIO SPARE PARTS BE USED, AS THESE ARE THE ONLY ONES OFFERING YOU THE SAME QUALITY GUARANTEE AS THOSE INITIALLY FITTED ON THE SCOOTER. THE USE OF NON-ORIGINAL SPARE PARTS RENDERS THE WARRANTY VOID.

WARNING



PIAGGIO MARKETS ITS OWN LINE OF ACCESSORIES THAT ARE RECOGNISED AND GUARANTEED FOR USE. IT IS THEREFORE ESSENTIAL TO CONTACT AN AUTHORISED DEALER OR SERVICE CENTRE IN ORDER TO CHOOSE AND FIT ACCESSORIES CORRECTLY. THE USE OF NON-ORIGINAL ACCESSORIES MAY AFFECT THE STABILITY AND OPERATION OF YOUR VEHICLE AND REDUCE SAFETY LEVELS WITH POTENTIAL RISKS FOR THE RIDER.

WARNING

NEVER RIDE THE SCOOTER EQUIPPED WITH ACCESSORIES (TOP BOX AND/OR WINDSHIELD) AT A SPEED HIGHER THAN 100 km/h.

THE SCOOTER CAN BE RIDDEN AT A HIGHER SPEED WITHOUT THE ACCESSORIES MENTIONED BEFORE WITHIN THE LIMITS ESTABLISHED BY LAW.

IF THERE ARE ANY NON-PIAGGIO ACCESSORIES INSTALLED, OR AN ABNORMAL LOAD, OR IF THE SCOOTER IS NOT IN A GENERALLY GOOD CONDITION, OR WHENEVER WEATHER CONDITIONS DEMAND IT, SPEED SHOULD BE FURTHER REDUCED.

WARNING

BE EXTREMELY CAREFUL WHEN INSTALLING AND REMOVING THE MECHANICAL ANTITHEFT DEVICE ON THE VEHICLE (U-SHAPED PADLOCK, DISC BLOCK, ETC.).

MAINLY NEAR THE BRAKE PIPES, TRANSMISSIONS AND/OR ELECTRIC CABLES, AN INCORRECT INSTALLATION OR REMOVAL OF THE ANTITHEFT DEVICE AS WELL AS LEAVING IT ON BEFORE STARTING THE VEHICLE CAN SERIOUSLY DAMAGE ITS COMPONENTS, COMPROMISE THE CORRECT FUNCTIONING OF THE VEHICLE AND USERS' SAFETY.

Vespa PX 125 150



Chap. 06 Scheduled maintenance

Scheduled servicing table

Adequate maintenance is fundamental to ensuring long-lasting, optimum operation and performance of your vehicle.

To this end, a series of checks and maintenance operations (at the owner's expense) have been suggested, which are included in the summary table on the following page. Any minor faults should be reported without delay to an **Authorised Service Centre or Dealer** without waiting until the next scheduled service to solve it.

It is indispensable to have your vehicle serviced to the prescribed intervals of time, even if you have not reached the predicted mileage. Punctual vehicle servicing is necessary for the correct use of the guarantee. For all further information regarding the Guarantee application modes and the execution of the "Programmed Maintenance" refer to the "Guarantee Booklet".

MAINTENANCE TABLE

km x 1.000	1	5	10	15	20	25	30	35	40	45	50	55	60
Safety locks	I		I		I		I		I		I		I
Spark plug		R	R	R	R	R	R	R	R	R	R	R	R
Transmission cable			I		I		I		I		I		I
Air filter		C	C	C	C	C	C	C	C	C	C	C	C
Electrical system and battery	I	I	I	I	I	I	I	I	I	I	I	I	I
Brake fluid*	I	I	I	I	I	I	I	I	I	I	I	I	I
Throttle transmission	A	A	A	A	A	A	A	A	A	A	A	A	A
Front light			A	A	A		A		A		A		A
Vehicle and brake test - test ride	I	I	I	I	I	I	I	I	I	I	I	I	I
Brake pads			I	I	I	I	I	I	I	I	I	I	I

km x 1.000	1	5	10	15	20	25	30	35	40	45	50	55	60
Wheels/ tyres	I	I	I	I	I	I	I	I	I	I	I	I	I
Idle adjustment			A		A		A		A		A		A
Suspension			I		I		I		I		I		I
Steering	A		A		A		A		A		A		A
Braking system pipes							R						R
Gear box oil level	R	I	R	I	R	I	R	I	R	I	R	I	R
Odometer gear	L		L		L		L		L		L		L
Brake and clutch lever	L	L	L	L	L	L	L	L	L	L	L	L	L
Secondary air filter (external/internal)		I		C	C	C		C	C	C		C	C
Cylinder ventilation system					I				I				I

I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY

C: CLEAN, R:REPLACE, A:ADJUST, L:LUBRIFICATE

** Replace every 2 years*

TABLE OF RECOMMENDED PRODUCTS

Product	Description	Specifications
AGIP GEAR 80W-90	gearbox oil	SAE 80W-90 oil complying with API GL4 specifications
AGIP CITY HI TEC 4T	Oil to lubricate flexible transmissions (brake, throttle control and mixer, odometer)	Oil for 2-stroke engines: SAE 5W-40, API SL, ACEA A3, JASO MA

Product	Description	Specifications
AGIP GP 330	Grease (brake level, throttle twistgrip, gaer)	Calcium complex soap grease NLGI 2; ISO-L-XBCIB2
AGIP CITY TEC 2T	Mixer oil	synthetic oil for 2-stroke engines: JASO FC, ISO-L-EGD
AGIP GREASE MU3	Grease for odometer transmission gear case	Soap-based lithium grease with NLGI 3; ISO-L-XBCHA3, DIN K3K-20
AGIP BRAKE 4	Brake fluid	FMVSS DOT 4 Synthetic fluid

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The descriptions and illustrations given in this publication are not binding. While the basic specifications as described and illustrated in this manual remain unchanged, PIAGGIO-GILERA reserves the right, at any time and without being required to update this publication beforehand, to make any changes to components, parts or accessories, which it considers necessary to improve the product or which are required for manufacturing or construction reasons.

Not all versions/models shown in this publication are available in all countries. The availability of each model should be checked at the official Piaggio sales network.

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PIAGGIO & C. S.p.A. - Aftersales

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