

PIAGGIO 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 scooter 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.

Fly 125 150 ie



The instructions given in this manual are intended to provide a clear, simple guide to using your vehicle; this booklet also details routine maintenance procedures and regular checks that should be carried out on the vehicle at an **authorised 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 **authorised Dealer or Service Centres**.



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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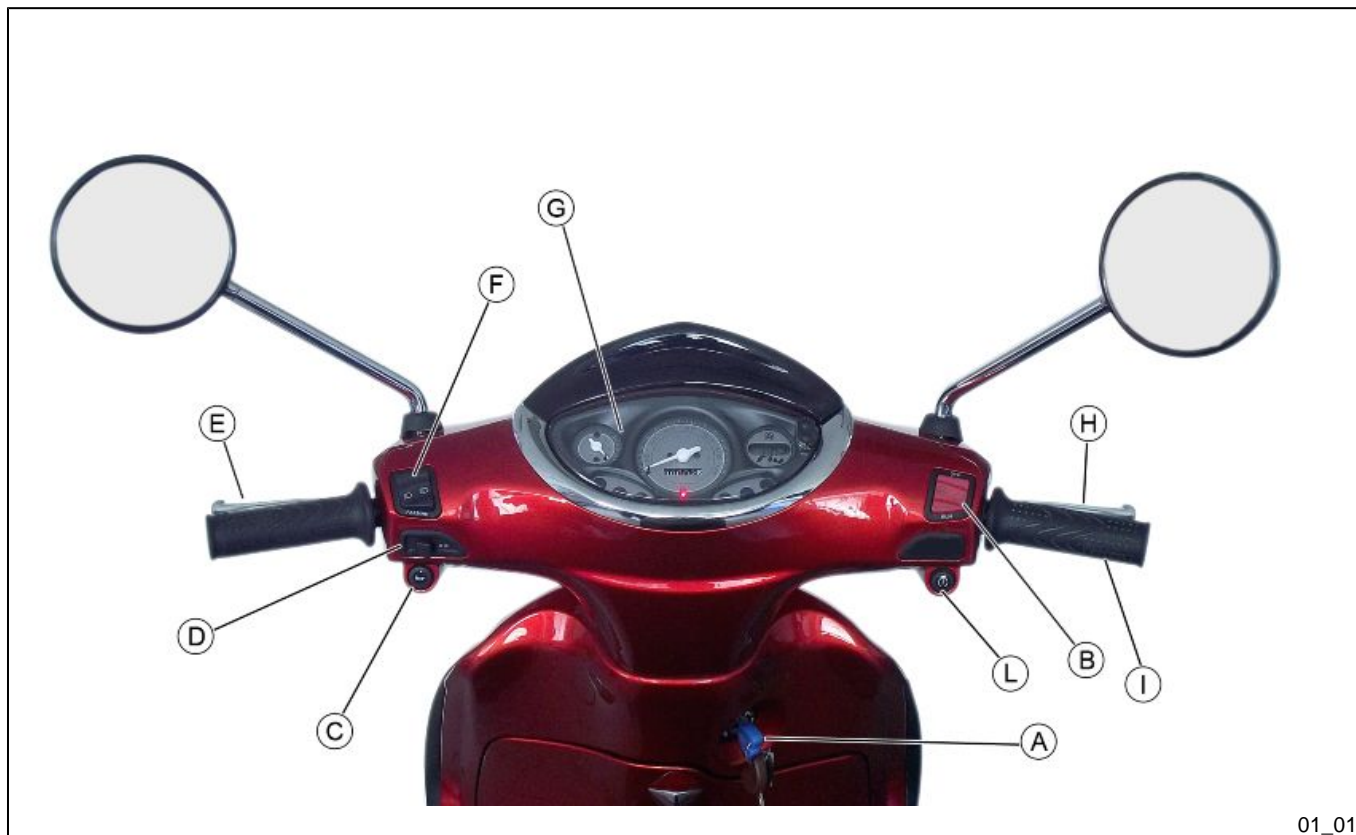
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**Chap. 01
Vehicle**



Dashboard (01_01)

A = Ignition key-switch

B = RUN/OFF emergency stop switch

C = Horn button

D = Turn indicator switch

E = Rear brake lever

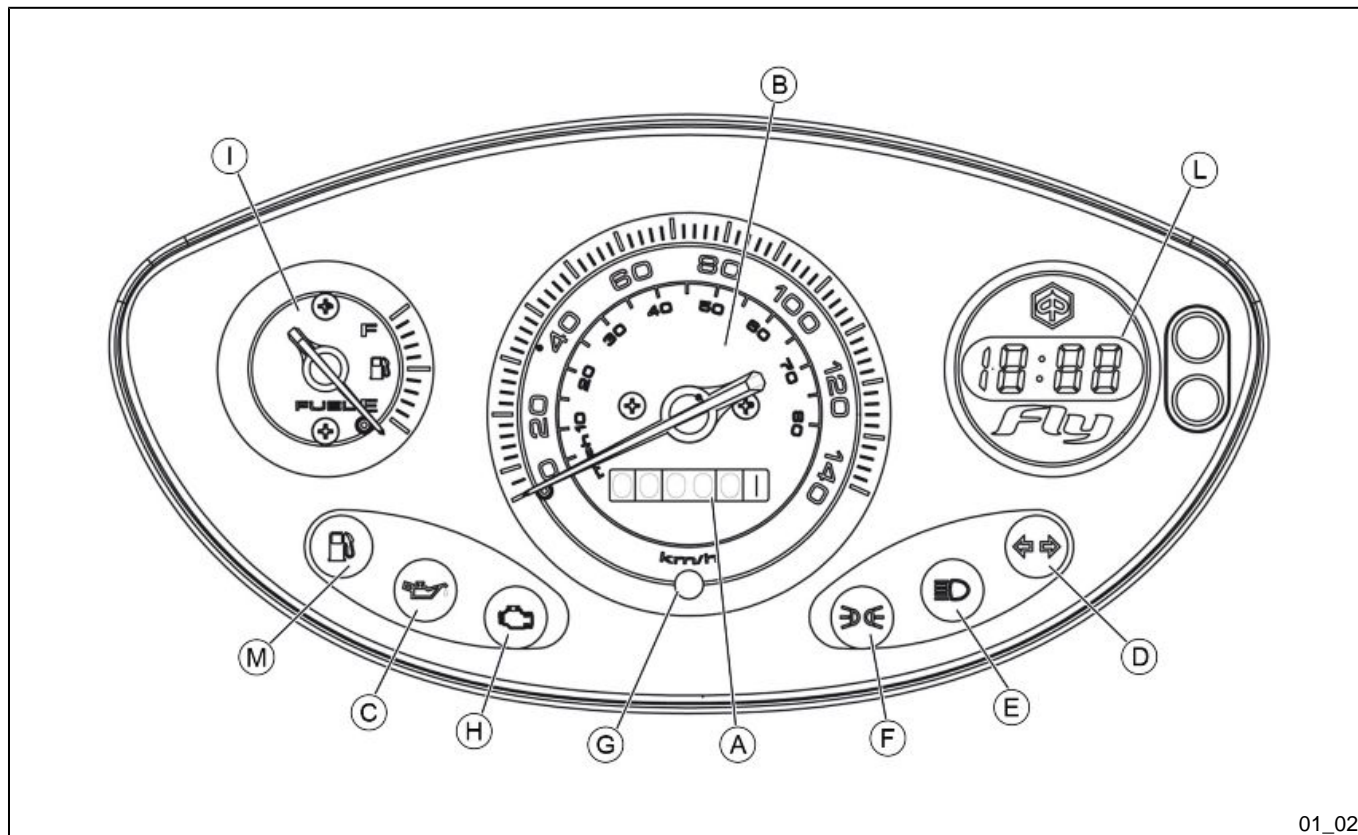
F = Headlight switch

G = Analogue instrument panel

H = Front brake lever

I = Throttle grip

L = Starter button

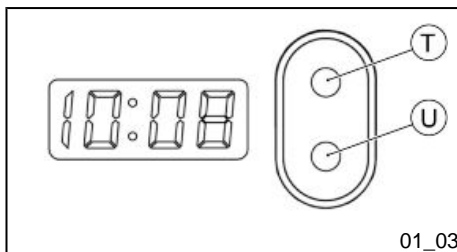


01_02

Analogue instrument panel (01_02)

A = Trip counter

- B** = Speedometer
- F** = Low oil pressure warning light
- D** = Turn indicator warning light
- E** = High beam warning light
- F** = Headlight warning light
- G** = Immobilizer warning light
- H** = Injection fault
- I** = Fuel gauge
- L** = Digital clock
- M** = Low fuel warning light



Clock (01_03)

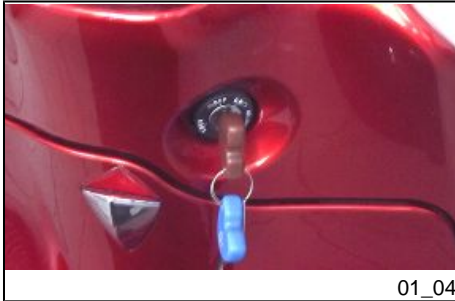
Located in the instrument panel, it displays hours and minutes with 1 to 12-hour time, AM or PM.

Operate the function selection button «**T**» and month, day and seconds are also displayed besides hours and minutes. In order to adjust the above mentioned functions, operate button «**U**». The digital clock is powered by a battery (battery life is about 1 year); lift the whole instrument panel to replace the battery. It is advisable to take your vehicle to an **Authorised Service Centre** for this operation.

WARNING



DEAD BATTERIES ARE HARMFUL TO THE ENVIRONMENT. THEY MUST BE DISPOSED OF IN SUITABLE CONTAINERS AS PRESCRIBED BY THE REGULATIONS IN FORCE.



Key switch (01_04)

LOCK = Ignition disabled, extractable key, steering lock engaged front glove-box locked.

OFF = Ignition disabled, extractable key, steering lock disengaged, front glove-box unlocked.

ON = Ready to start position, anti-theft device disabled, non-extractable key, glove-box unlocked.

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.

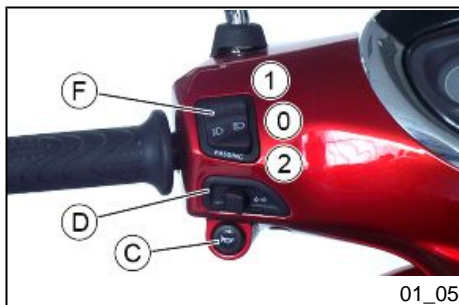
Releasing the steering wheel

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

CAUTION

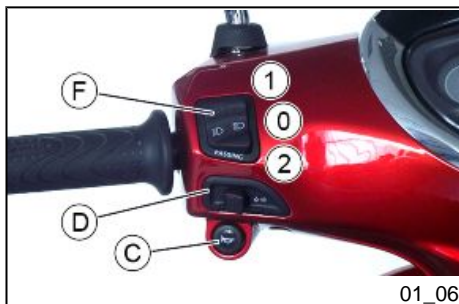


DO NOT TURN THE KEY TO «LOCK» OR «KEY OFF» WHILE RIDING.



Switch direction indicators (01_05)

To set the left turn indicators flashing, move lever «D» to the left; to set the right turn indicators flashing, move it to the right. The lever automatically returns to the central position and the indicators remain on. To turn the indicators off, press the lever towards the switch.



Horn button (01_06)

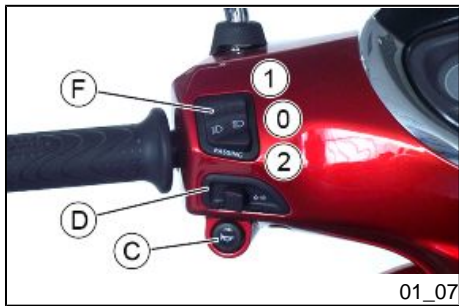
Horn button «C»

Light switch (01_07)

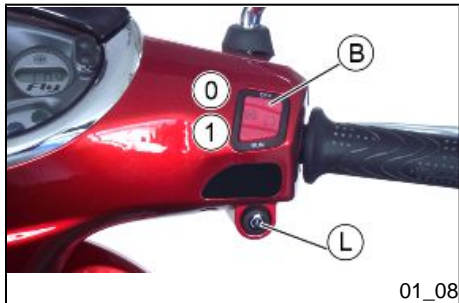
0 = Low-beam and taillight

1 = High-beam and taillight

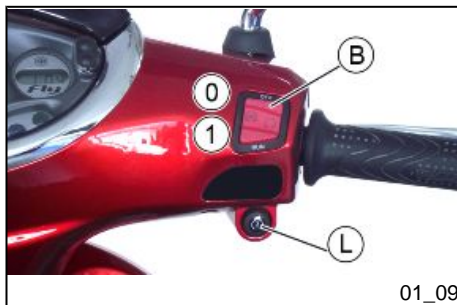
2 = High-beam flash (passing)

**CAUTION**

DO NOT PLACE, TRANSPORT OBJECTS AND/OR CLOTHES OVER THE FRONT HEADLIGHT ASSEMBLY, WHEN THE HEADLIGHT IS TURNED ON OR OFF. FAILURE TO FOLLOW THIS PRECAUTION MAY CAUSE OVERHEATING AND THE SUBSEQUENT FUSION OF THE GLASS.

**Start-up button (01_08)**

To start the engine, pull either of the two brake levers and then push the button «L».



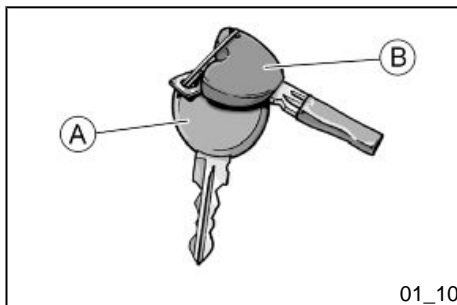
01_09

Engine stop button (01_09)

The engine can be started when the emergency stop switch «**B**» is in position «**1**» **RUN**; if the emergency stop switch «**B**» is in position «**0**» **OFF** it is not possible to start the engine or it will switch off if started.

The immobilizer system

In order to enhance theft protection, the vehicle is equipped with a «**PIAGGIO IMMOBILIZER**» electronic engine locking device that is activated automatically when the ignition switch is removed. Upon start-up, the «**PIAGGIO IMMOBILIZER**» system checks the starter key, and only if this key is recognised will the Immobiliser system allow the vehicle to be started.



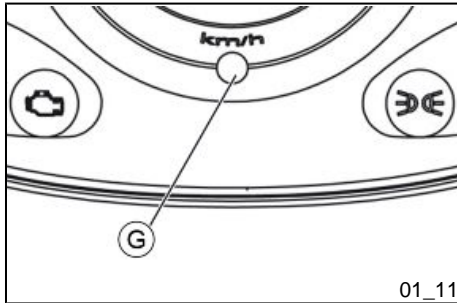
01_10

Keys (01_10)

The vehicle is supplied with two types of keys. The «**A**» key with a brown grip and the "**MASTER**" key. Only a single copy of this key is supplied, which is necessary to program all your other keys and for your dealer to perform some maintenance operations. We therefore recommend that it be used only under exceptional circumstances. The blue key «**B**» (single copy supplied) is used for normal operations and for start-up.

WARNING

THE LOSS OF THE BROWN KEY PREVENTS LATER REPAIRS TO THE "PIAGGIO IMMOBILIZER" SYSTEM AND TO THE ENGINE CONTROL UNIT.



Immobilizer device enabled indicator led (01_11)

Activation of the «**PIAGGIO IMMOBILIZER**» system is signalled by a flashing warning light «**G**» (see «Analogue instrument panel» section).

In order to reduce battery discharge, the indicator LED turns off automatically after 48 hours of uninterrupted functioning.

Should the system fail, different LED flashing patterns will be provided by an **Authorised Piaggio Service Centre** with information on the type of fault detected.

Operation

Every time the ignition key is removed in the "OFF" or "LOCK" position, the safety system activates the immobilizer system. Turning the key to "ON" disables the engine lock, provided that the safety system recognises the code transmitted by the key. If the code is not recognised, turn the key first to "OFF" and then to "ON"; if the lock cannot be disabled, try with the other key supplied (brown). If the engine cannot be started, contact an **Authorised Piaggio Service Centre**, which is provided with the electronic equipment required to detect and repair the system. The Immobilizer is also activated by switching off the engine with the **RUN OFF** switch. This happens even if the starter key is in «ON».

When additional keys are required, please note that data storage (up to 3 keys max.) must be done on all keys, both new ones and existing ones. Take the key with the brown grip and all the blue keys supplied to an **Authorised Piaggio Service Cen-**

tre. The codes of keys not submitted for the new programming procedure are deleted from the memory. Any lost keys will therefore not be enabled to start the engine.

WARNING



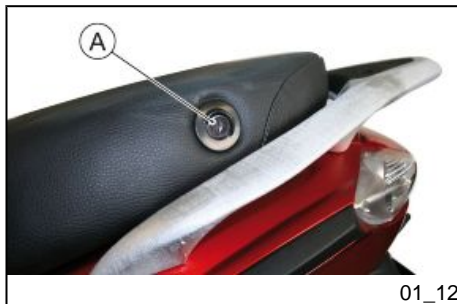
EACH KEY HAS ITS OWN AND UNIQUE CODE, WHICH MUST BE STORED IN THE SYSTEM CONTROL UNIT MEMORY.

VIOLENT SHOCKS MAY AFFECT THE ELECTRONIC COMPONENTS OF THE KEY.

SHOULD THE VEHICLE CHANGE OWNER, IT IS ABSOLUTELY NECESSARY THAT THE NEW OWNER GET POSSESSION OF THE KEY WITH THE BROWN GRIP (AS WELL AS ALL OTHER KEYS).

Opening the saddle (01_12)

Insert the key into the saddle lock «A», turn it anticlockwise and tip the saddle forward.





Identification (01_13, 01_14)

The identification numbers consist of a prefix stamped on the chassis and on the engine, followed by a number. They must be quoted when ordering spare parts. We recommend that you check that the prefix and chassis number stamped on the vehicle correspond with those in the vehicle documents.

CAUTION



PLEASE REMIND THAT ALTERING IDENTIFICATION REGISTRATION NUMBERS CAN LEAD TO SERIOUS PENAL SANCTIONS (IMPOUNDING OF THE VEHICLE, ETC.).



Rear top box opening (01_15)

Set the key to «OFF». Then press it. When the key is set to «LOCK», the glove-box is locked.





Bag clip (01_16)

To use the retractable bag hook «B» located at the front end of the saddle, pull it forward lightly.

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Chap. 02
Use



Checks (02_01)

Before using the vehicle, check:

1. That the fuel tank is full.
2. The oil level in the rear hub.
3. Engine oil level (see section «Engine oil level»).
4. That tyres are properly inflated.
5. Correct functioning of headlights, rear taillight and turn indicators.
6. The correct functioning of the front and rear brakes.



Refuelling (02_02, 02_03)

Fill fuel tank «A» with unleaded petrol (minimum octane rating = 95).

The fuel level is indicated by the specific indicator «I» located on the instrument panel. The fuel reserve indicator, however, is signalled by the warning light «M».

CAUTION

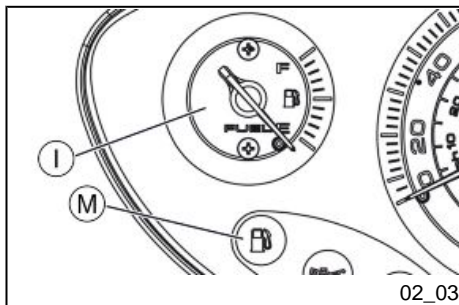


SHUT OFF THE ENGINE BEFORE REFUELLING WITH PETROL. PETROL IS HIGHLY FLAMMABLE. DO NOT LET PETROL SPILL FROM THE TANK OR WHILE REFUELLING

CAUTION



DO NOT BRING NAKED FLAMES OR CIGARETTES NEAR THE MOUTH OF THE FUEL TANK: FIRE HAZARD. ALSO AVOID INHALING HARMFUL VAPOURS.



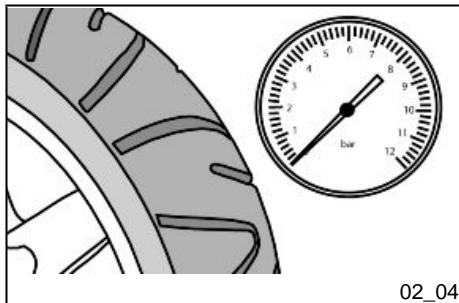
02_03

CAUTION

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

Characteristic**Fuel tank capacity**

~ 7 litres (1.5 l of which is reserve)



02_04

Tyre pressure (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.

TYRE INFLATION PRESSURE

| | |
|---------------------|---------|
| Front tyre pressure | 1.8 bar |
| Rear tyre pressure | 2 bar |

Rear tyre pressure (with passenger)

2 bar (2.3 bar)

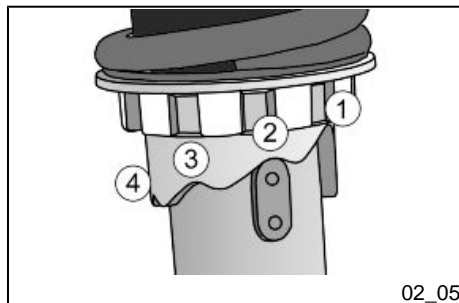
TYRES

Front tyre

120/70 - 12" Tubeless

Rear tyre

120/70 - 12" Tubeless



Shock absorbers adjustment (02_05, 02_06)

The preloading of the springs can be adjusted to 4 positions acting on the ring nut located in the lower part of the shock absorbers with the specific spanner supplied.

Position 1: minimum preload: rider only

Position 2: medium preloading: rider only

Position 3: medium preloading: rider and passenger

Position 4: maximum preloading: rider, passenger, and luggage.

In order to carry out this operation you will need to use the specific spanner in the kit. Spring preloading increases by turning the ring nut towards «**A**», but decreases if the ring nut is turned towards «**B**».

CAUTION



RIDING THE VEHICLE WITH THE SPRING PRELOADING NOT CORRECTLY SET FOR THE RIDER AND POSSIBLE PASSENGER, COULD REDUCE THE COMFORT OF THE RIDE AND THE PRECISION OF THE STEERING.



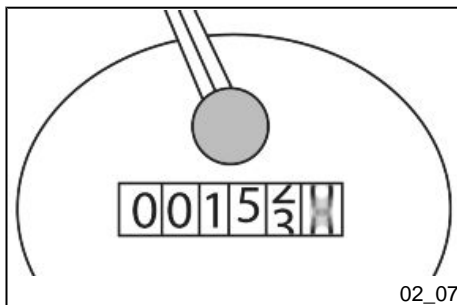
02_06

WARNING

WE RECOMMEND WEARING GLOVES WHILE CARRYING OUT THIS OPERATION IN ORDER TO AVOID INJURIES.

Running in (02_07)**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.



02_07

Starting up the engine (02_08, 02_09, 02_10, 02_11, 02_12)

The vehicle is equipped with automatic transmission with direct drive, so that starting is effected by turning the throttle grip to idle speed; to start-off from stationary position, progressively twist the throttle grip.

The vehicle is equipped with an electrical fuel pump that switches on automatically as soon as the engine is started.

The vehicle is equipped with a **servo assisted** starter system.

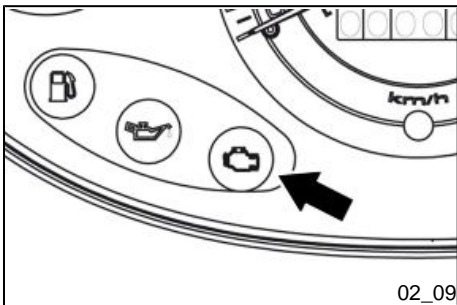
To start it up, it is necessary to:

- Rest the vehicle on its centre stand, ensuring the rear wheel is not touching the ground.

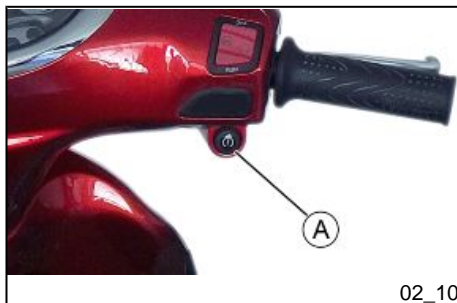
- Keep the throttle grip to idle speed.



- Insert the key into the ignition key and turn it to «ON».



- Wait for the engine control telltale light to turn off.



02_10

- To start the engine, pull either of the two brake levers «**B-C**» and then push the button «**A**».

The vehicle is equipped with special starter procedure management. The starter motor remains active until the engine starts even if switch «**L**» is released.

Keep one of the two brakes operated (front or rear) so as to not interrupt the starter procedure.

The throttle grip must remain in the minimum position, because any other position inhibits the vehicle starter.

The starter motor will remain active for a maximum of 5 consecutive seconds.

CAUTION



DO NOT CARRY OUT THESE OPERATIONS IN CLOSED AREAS SINCE EXHAUST GASES ARE TOXIC.

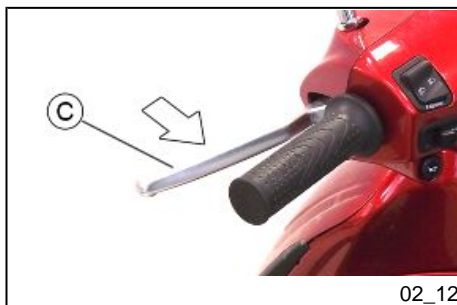
CAUTION



DUE TO THE HIGH TEMPERATURES THE SILENCER CAN REACH, ALWAYS TAKE CARE, WHEN PARKING THE VEHICLE, THAT THE SILENCER DOES NOT COME INTO CONTACT WITH FLAMMABLE MATERIALS, TO AVOID SERIOUS BURNS.



02_11



02_12

Precautions

CAUTION



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. IN ANY CASE, IN ORDER TO PRESERVE THE ENGINE FROM PROLONGED OVERREVVING, THE REVOLUTION LIMITER WILL BE ACTIVATED IF THE ENGINE SPEED EXCEEDS THE ESTABLISHED THRESHOLD.

WARNING



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

Difficult start up

In the rare case of a flooded engine, and in order to facilitate starting, try putting the vehicle into motion with the throttle slightly open. It is however necessary, once the engine is started, to take your vehicle to an **Authorised Service Centre** to determine the cause of this problem and to re-establish the vehicle proper functioning.



02_13

Stopping the engine (02_13)

Stop acceleration, then turn the key switch «D» to «OFF » to stop the engine (extractable key).

CAUTION



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

Stand (02_14)

CENTRE STAND

Push with your foot on the centre stand's fork "F" while lifting the vehicle backward, holding onto the handlebar.



02_14

SIDE STAND:

With your foot push the projection of the stand «L » in order to open it and at the same time lean the vehicle on you. There is a switch that hinders the vehicle starter with lowered stand.

WARNING

USE THE SIDE STAND PREFERABLY ON STREET SURFACES WHICH ARE COMPACT AND ONLY SLIGHTLY SLOPING, PARTICULARLY IN CONDITIONS OF MAXIMUM ALLOWED LOAD.



Automatic transmission (02_15)

To ensure simple, pleasurable riding, the vehicle is equipped with automatic transmission with regulator and centrifugal clutch. The system is designed to give the best possible performance in terms of both acceleration and consumption, on level ground and uphill, thanks to the adjustments made to engine speed and transmitted torque. If you have to stop on an uphill slope (traffic lights, traffic jam, etc.) only use the brake to keep the vehicle still, leaving the motor running at idling speed. Using the motor to keep the vehicle still can cause the clutch to overheat. This problem is due to the friction of the clutch parts on the clutch bell. It is therefore recommended to avoid conditions of prolonged clutch slippage leading to clutch overheating (for example, as well as the situation described above, riding uphill fully laden on steep slopes or starting off on slopes greater than 25%, etc.):

1. Do not continue riding in such conditions.
2. Let the clutch cool down with the motor at idling speed for a few minutes

Safe driving (02_16)

WARNING



SOME SIMPLE TIPS ARE PROVIDED BELOW WHICH WILL ENABLE YOU TO USE YOUR VEHICLE ON A DAILY BASIS MORE EASILY AND SAFELY.

<



Your ability and your knowledge of the vehicle form the basis of safe riding. We recommend trying out the vehicle in traffic-free zones to get to know your vehicle completely.

ALWAYS DRIVE WITHIN YOUR LIMITS

1. Before riding off, remember to put on your helmet and fasten it correctly.
2. Reduce speed and ride cautiously on uneven roads.
3. Remember that after riding on a long stretch of wet road without using the brakes, the braking effect is initially lower. Under these conditions, it is a good idea to operate the brakes from time to time.
4. Do not brake hard on a wet surface, on dirt tracks or on any slippery road surface.
5. If you have to brake, use both brakes in order to divide the braking action between both wheels.
6. Avoid starting off by mounting the vehicle while it is still resting on its stand. In any case, the rear wheel should not be turning when it comes into contact with the ground, in order to avoid abrupt departures.
7. If the vehicle is used on roads covered with sand, mud, snow mixed with salt, etc., clean the brake disc frequently with mild detergent in order to prevent abrasive substances from building up within the holes, which can result in early wear of the brake pads.
8. Any elaboration that modifies the vehicle's performances, such as tampering with original structural parts is strictly forbidden by law, and renders the vehicle not conforming to the approved type and therefor dangerous to ride.

CAUTION



RIDING UNDER THE INFLUENCE OF ALCOHOL, DRUGS OR CERTAIN MEDICINES CAN BE EXTREMELY DANGEROUS FOR ONESELF AND FOR OTHERS.

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.

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**Chap. 03
Maintenance**

Engine oil level

Four stroke engine oil is used in the engines in order to lubricate the timing bodies, the bench bearings and the thermal group. **An insufficient quantity of oil can seriously damage the engine.** In all four-stroke engines, a loss of efficiency in oil performance and certain consumption should be considered normal. Consumption can particularly reflect the conditions of use (i.e. when driving at 'full acceleration' all the time, oil consumption increases). The replacement intervals provided for by the maintenance programme are defined depending on the total content of oil in the engine and the average consumption measured following standardised methods. **In order to prevent any problems, we recommend checking oil level more frequently than indicated in the Scheduled Maintenance table or before setting off on long journeys. The vehicle is, however, equipped with an oil pressure warning light on the instrument panel.**



03_01

Engine oil level check (03_01, 03_02)

Every time the vehicle is used, visually inspect the level of the engine oil when the engine is cold (after **completely unscrewing** the oil cap/dipstick). The oil level should be somewhere between the MAX and MIN index marks on the level rod; «A»; while the oil is being checked, the vehicle must be resting on its centre stand on an even, horizontal surface.

If the check is carried out after the vehicle has been used, and therefore with a hot engine, the level will be lower; in order to carry out a correct check, wait at least 10 minutes after the engine has been stopped so as to get the correct level.

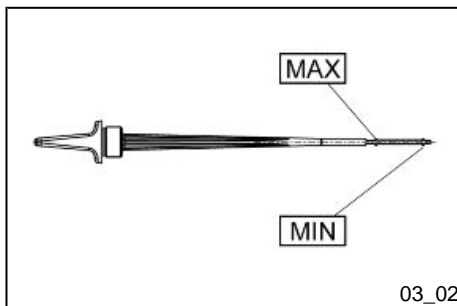
Recommended products

eni i-Ride PG 5W-40

Synthetic based lubricant for high-performance four-stroke engines.
JASO MA, MA2 - API SL - ACEA A3

Characteristic

Engine oil

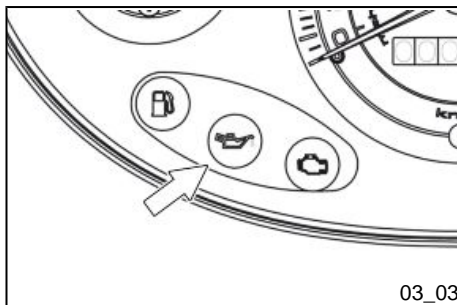


1220 cc (of which 120 cc in the filtering cartridge)

03_02

Engine oil top-up

The oil should be topped up after having checked the level and in any case by adding oil **without ever exceeding the MAX. level**. It should be checked in any case every 2500 Km at an **Authorised Piaggio Service Centre** and the engine oil should be topped up if necessary.



Warning light (insufficient oil pressure) (03_03)

The vehicle is equipped with a warning light that comes on when the key is turned to «ON». However, this light should switch off once the engine has been started. **If the light comes on while braking, at idle speed or while turning a corner, it is necessary to check the oil level and top it up if required. If after having topped-up the oil, the warning light still comes on while braking, at idle speed or while turning a corner, it will be necessary to take your vehicle to an Authorised Service Centre.**

03_03

Engine oil change

To replace the engine oil and oil filter, as reported in the scheduled maintenance table, contact an **Authorised Service Centre**.

CAUTION



RUNNING THE ENGINE WITH INSUFFICIENT LUBRICATION OR WITH INADEQUATE LUBRICANTS ACCELERATES THE WEAR AND TEAR OF THE MOVING PARTS AND CAN CAUSE IRRETRIEVABLE DAMAGE.

TOPPING UP THE ENGINE WITH AN EXCESSIVE AMOUNT OF OIL MAY CAUSE MALFUNCTION AND/OR A DROP IN PERFORMANCE OF THE VEHICLE.

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

CAUTION



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

Hub oil level (03_04)

Check the presence of oil in the hub, according to the regular controls shown in the table of the scheduled maintenance.

WARNING

FOR THE REGULAR CHECK OF THE HUB OIL LEVEL SHOWN IN THE SCHEDULED MAINTENANCE TABLE, CONTACT AN AUTHORISED SERVICE CENTRE.

FOR THE CONTROLS OF THE HUB OIL LEVEL THAT ARE NOT PREDETERMINED BY THE SCHEDULED MAINTENANCE TABLE, OPERATE AS DESCRIBED.

LEVEL CHECK

- Park the vehicle on level ground and centre stand.

- Undo screw «A»:

- **oil comes out** of the screw hole «A»: the oil quantity in the hub is adequate; place it and tighten the screw.
- **NO oil comes out** of the screw hole «A»: the oil quantity in the hub, **IS NOT** adequate and it is necessary to carry out the top-up.

- With a cloth carefully clean the transmission crankcase.

WARNING

THE FUNCTION OF THE HUB WITH INSUFFICIENT HUB LUBRICATION OR WITH CONTAMINATED OR IMPROPER LUBRICANTS ACCELERATES THE WEAR AND TEAR OF THE MOVING PARTS AND CAN CAUSE SERIOUS DAMAGE.

Characteristic**Hub oil**

200 cm³



TOP-UP

If necessary carry out the top-up, **DO NOT use the vehicle** and contact an **Authorised Service Centre**.

CAUTION

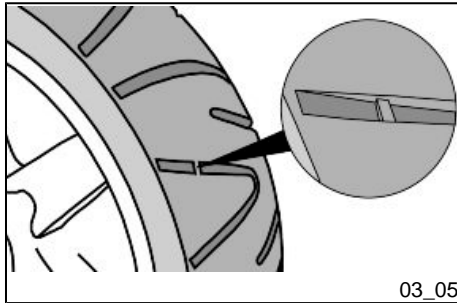


USED OILS CONTAIN SUBSTANCES HARMFUL TO THE ENVIRONMENT. FOR OIL REPLACEMENT, CONTACT AN AUTHORISED SERVICE CENTRE WHICH IS EQUIPPED TO DISPOSE OF USED OILS IN AN ENVIRONMENTALLY FRIENDLY AND LEGAL WAY.

Recommended products

AGIP GEAR SAE 80W-90

Lubricant for gearboxes and transmissions.
API GL-4



Tyres (03_05)

Periodically check the inflation pressure of each tyre (when cold).

Tyres are fitted with wear indicators; tyres should be replaced as soon as these indicators become visible on the tyre tread. Also check that the tyres do not show signs of splitting at the sides or irregular tread wear; If this occurs, go to an authorised workshop or at least a workshop adequately equipped to remove and refit tyres.

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**Front tyre pressure**

1.8 bar

Rear tyre pressure

2 bar

Rear wheel pressure (rider and passenger):

2.3 bar

Spark plug dismantlement (03_06, 03_07)

In order to inspect the spark plug, follow the operation described when the engine is cold:

1. Remove cover «**B**» after unscrewing the corresponding screws «**A**»;
2. Detach the spark plug cap «**C**»;
3. Remove the spark plug with the supplied spanner (with retaining rubber).

To refit, repeat the procedure in reverse order using the spanner to insert the spark plug or to tighten it in its seat. Care should be taken to installing and fixing it with correct inclination.





03_07

To reassemble the cover follow the steps in reverse order, making sure to insert the pins in the appropriate seats.

WARNING



THE SPARK PLUG MUST BE REMOVED WHEN THE ENGINE IS COLD. THE USE OF A SPARK PLUG WITH THERMAL GRADE OR THREAD OTHER THAN THE INDICATED TYPE (SEE «DATA» SECTION) CAN SERIOUSLY DAMAGE THE ENGINE. REPLACE SPARK PLUGS AT THE INTERVALS INDICATED IN THE SCHEDULED MAINTENANCE TABLE.

N.B.

USE OF SPARK PLUGS OTHER THAN THE INDICATED TYPE OR UNSHIELDED SPARK PLUG CAPS CAN LEAD TO FAULTS IN THE VEHICLE 'S ELECTRICAL SYSTEM.

Characteristic

Spark plug

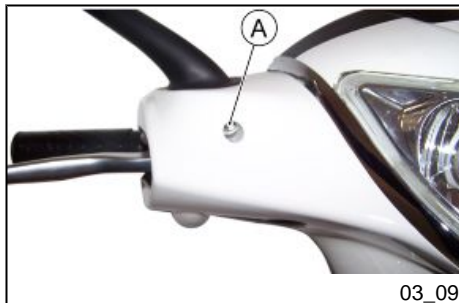
NGK CR8EB



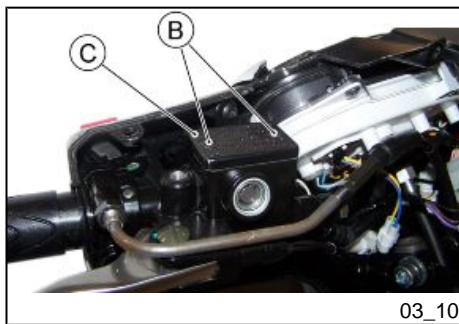
03_08

Removing the air filter (03_08)

To remove and clean the air filter, follow the indications in the scheduled maintenance table, contact an **Authorised Service Centre**.



03_09



03_10

Checking the brake oil level (03_09, 03_10)

Both brake fluid reservoirs, front and rear, are fitted with a transparent indicator «A»; the quantity of liquid contained in the sight glass indicates the level of liquid in its reservoir.

When the sight glass «A» is full, the level inside its reservoir exceeds the MIN level; when it is partially full, the level drops to the MIN level; when it is fully empty, the level of fluid in the reservoir is below the MIN level.

The brake fluid level may fall due to wear on the brake pads. In case the pad wear is below the minimum mark, contact an **Authorised Service Centre** to have the braking system thoroughly checked. If you need to top up the level in one of the two reservoirs, follow the steps listed below. Unscrew the 2 screws «B», remove the reservoir cap «C» in question and pour in the required quantity of fluid (the brake fluid level must be above minimum). Place the handlebar in the riding position and pay attention not to tilt the vehicle in order to keep the brake fluid reservoir in horizontal position when checking the fluid level.

N.B.

THE BRAKE FLUID LEVEL MUST BE CHECKED FIRST IN THE LEFT RESERVOIR OF THE REAR BRAKE.

CAUTION



TOP-UPS SHOULD ONLY BE CARRIED OUT WITH DOT4 CLASSIFIED BRAKE FLUID.

WARNING



IN NORMAL CLIMATIC CONDITIONS IT IS ADVISABLE TO REPLACE THE ABOVE-MENTIONED FLUID EVERY 2 YEAR. NEVER USE BRAKE FLUID CONTAINED IN CONTAINERS WHICH ARE ALREADY OPEN OR PARTIALLY USED.

CAUTION

THE BRAKING CIRCUIT FLUID IS HIGHLY CORROSIVE. THEREFORE, WHEN TOPPING UP, AVOID LETTING IT COME INTO CONTACT WITH THE PAINTED PARTS OF THE VEHICLE. THE BRAKING CIRCUIT FLUID IS HYGROSCOPIC, THAT IS, IT ABSORBS HUMIDITY FROM THE SURROUNDING AIR. IF MOISTURE CONTAINED IN THE BRAKE FLUID EXCEEDS A CERTAIN VALUE, THIS WILL RESULT IN INEFFICIENT BRAKING.

Recommended products**AGIP BRAKE 4**

Brake fluid.

Synthetic fluid SAE J 1703 - FMVSS 116 - DOT 3/4 - ISO 4925 - CUNA NC 956 DOT 4



03_11

Battery (03_11)

To access the battery, open the front glove-box, then remove the battery compartment access door by unscrewing the 2 screws shown in the figure.

The battery is the electrical device that requires the most frequent attention and the most thorough maintenance.

WARNING

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

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.

CAUTION

IN ORDER TO AVOID DAMAGING THE ELECTRICAL 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.

Use of a new battery

To install a new battery:

1. Place the battery in its housing.
2. Connect the positive pole «+» first and then the negative pole «-».
3. Place the battery cover.

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.

Characteristic**Battery**

Sealed, 12 V / 10 Ah



03_12

Long periods of inactivity (03_12)

Battery performance will be poor 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 OPERA-

TION 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.

Fuses (03_13, 03_14, 03_15, 03_16, 03_17)

The electrical system is protected by a 30A fuse «7» located near the battery; by two fuses of 10A, three fuses of 7.5A and one fuse of 5A. The seven above mentioned fuses are located under the front grill. To reach them:

- remove the PIAGGIO clip-on badge «A»;
- unscrew and remove the screw «B»;
- remove the grill «C».



03_13



03_14



03_15



03_16

CAUTION

IN ORDER TO AVOID DAMAGING THE ELECTRICAL 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

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.

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).



03_17

FUSE CHART

Fuse No. 1

Threshold of operation: 10A

Location: front part

Protected circuits: battery power, lights relay.

Fuse no. 2

Threshold of operation: 10A

Location: front part

Protected circuits: battery-powered injection solenoid, injection control unit, Immobilizer LED.

Fuse no. 3

Threshold of operation: 7.5 A

Location: front part

Protected circuits: Ignition switched live, turn indicators

intermittence, horn, instrument panel, stop lights.

Fuse no. 4

Threshold of operation: 7.5 A

Location: front part

Protected circuits: Ignition switched live light switch and solenoid, daylight running lights, and dashboard lighting.

Fuse No. 5

Threshold of operation: 7.5 A

Location: front part

Protected circuits: Ignition switched live, flasher function.

Fuse No. 6

Threshold of operation: 5A

Location: front part

Protected circuits: Ignition switched live injection control unit, immobilizer antenna, injection load remote control.

Fuse No. 7

Threshold of operation: 30 A

Location: battery compartment

Protected circuits: Battery power, recharge circuit, vehicle general (flywheel, voltage regulator).

BULBS

High/low beam light bulb

Type: Halogen (HS1)**Power:** 12V - 35/35W**Quantity:** 1

Front side light bulb

Type: All glass**Power:** 12V - 5W**Quantity:** 1 RHS + 1 LHS

Front turn indicator light bulb

Type: Spherical**Power:** 12V - 10W**Quantity:** 1 RHS + 1 LHS

Rear turn indicator light bulb

Type: Spherical**Power:** 12V - 10W**Quantity:** 1 RHS + 1 LHS

Stop and tail light bulb

Type: Spherical**Power:** 12V 21/5W**Quantity:** 1

12V - 1.7W warning light bulbs

Type: All glass**Function:** High beam lights, oil pressure, injection, reserve warning light, turn indicators**Quantity:** 6

| | |
|---------------------------------|--|
| Instrument panel lighting bulbs | Type: All glass Power: 12V 1.7W Quantity: 2 |
|---------------------------------|--|

| | |
|--------------------|--|
| License plate bulb | Type: ALL GLASS Power: 12V - 5W Quantity: 1 |
|--------------------|--|



Front light group (03_18, 03_19, 03_20, 03_21, 03_22, 03_23, 03_24)

To access the headlight bulbs, remove the front of the handlebar cover, as follows:

- 1) Remove the rear-view mirrors; for this operation follow the instructions described and illustrated in the «Rear-view mirrors» section.
- 2) Unscrew the 3 screws holding the handlebar cover. The front central one «B» and the rear 2 «C».
- 3) Remove the crankcase cover «D» and undo the two screws «E».
- 4) Remove the connector «F».
- 5) Remove the handlebar cover to reach the headlight and the bulbs.

Once this is done, the handlebar cover can be removed.

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.



03_20

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



03_21



03_22

CAUTION

DO NOT PLACE, TRANSPORT OBJECTS AND/OR CLOTHES OVER THE FRONT HEADLIGHT ASSEMBLY, WHEN THE HEADLIGHT IS TURNED ON OR OFF. FAILURE TO FOLLOW THIS PRECAUTION MAY CAUSE OVERHEATING AND THE SUBSEQUENT FUSION OF THE GLASS.

**Daylights**

To replace the lamp position open the front case, remove the bulb holder from the seat; gently pull the lamp. To refit, proceed in reverse order.

Electric characteristic**Bulbs**

- n.1 bulb 12V-35/35W for high- and low beam light
- n.2 bulbs 12V-5W for daylight running lights



Headlight adjustment (03_25, 03_26)

Proceed as follows:

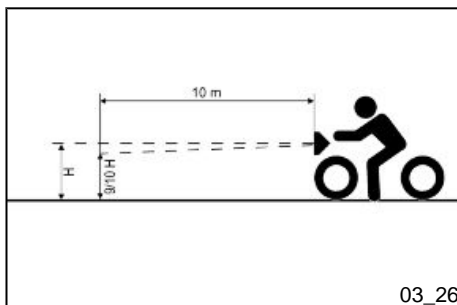
1. Place the vehicle in running order and with the tyres inflated to the prescribed pressure, on a flat surface 10 m away from a white screen situated in a shaded area, making sure that the longitudinal axis of the vehicle is perpendicular to the screen;
2. Turn on the headlight and check that the borderline 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.



03_25



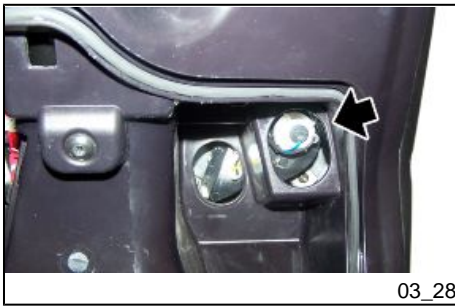
03_26

Front direction indicators (03_27, 03_28)

To replace the bulbs of the turn indicators, open the front case, remove the bulb holder from the seat; gently turn the bulb around 30° and remove it. Follow the process in reverse order to refit.



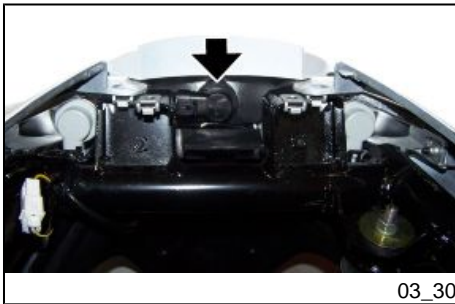
03_27



03_28



03_29



03_30

Rear optical unit (03_29, 03_30)

In order to reach the rear light bulb, remove the helmet compartment by loosening the 6 fixing screws. Gently push and turn the bulb about 30° and then remove it. To refit follow the same steps but in reverse order.

WARNING

FOR REPLACEMENT OF THE TURN INDICATOR BULBS PLEASE SEE AN AUTHORISED SERVICE CENTRE.

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.

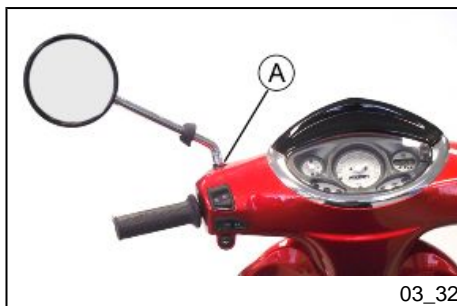
THE PRESENCE OF DROPS OF WATER, ON THE OTHER HAND, COULD INDICATE THAT WATER IS INFILTRATING. CONTACT THE AFTER-SALES SERVICE NETWORK.



Number plate light (03_31)

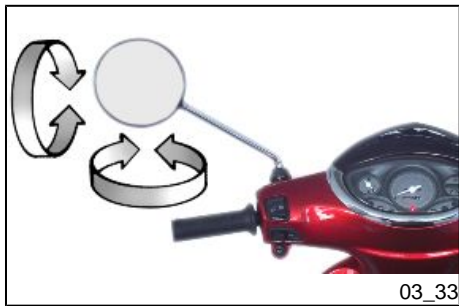
Remove the tail light by operating on the fixing screws «E».

Remove the bulb holder from the seat; gently pull the lamp. To refit, proceed in reverse order.



Rear-view mirrors (03_32, 03_33)

To adjust mirrors, loosen lock nut «A», place the mirror stem adequately and tighten the lock nut. The rear-view mirror is assembled on a stem with a ball 'joint'. The mirror can be adjusted manually to the desired position.



03_33



03_34

Front and rear disc brake (03_34)

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 an **Authorised Service Centre or Dealer**.

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. AF-

TER 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.

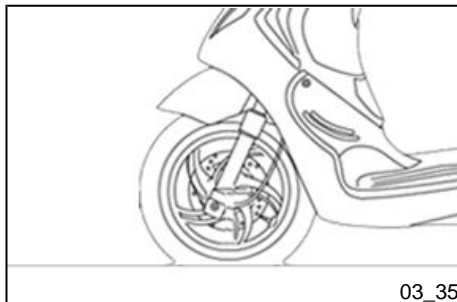
CAUTION



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

Puncture (03_35)

The vehicle is equipped with Tubeless tyres. When there is a puncture, Tubeless tyres - unlike tyres with inner tubes - go flat very slowly. This offers greater riding safety. A tyre that goes flat very slowly can be repaired with an "Inflate and Repair" spray. Tyres should be later fully repaired or replaced at an **Authorised Service Centre**.





03_36

Periods of inactivity (03_36)

The following operations are recommended:

1. General cleaning of the vehicle.
- 2 - With the engine off and the piston at bottom dead centre position, remove the spark plug and pour 1÷2 cc of motor oil through its hole. Operate the starter motor 3-4 times letting the engine perform a few revolutions, then remount the spark plug.
- 3 - Drain up all the vehicle's fuel; spread antirust grease on the uncoated metal parts; keep the wheels lifted above the ground.
- 4 - For the battery, follow the procedures described in the «Battery» section.
- 5 - Replace engine oil.

Recommended products

eni i-Ride PG 5W-40

Synthetic based lubricant for high-performance four-stroke engines.

JASO MA, MA2 - API SL - ACEA A3

Cleaning the vehicle

Use a low pressure jet of water to soften the caked dirt and mud deposited on the painted surfaces. Once softened, sponge off mud and dirt using a car body sponge soaked in a car body shampoo and water solution (2-4% of car shampoo in water). Then rinse with abundant water, and dry with a shammy cloth. For the engine exterior, use petrol, a brush and clean cloths. Petrol can damage paintwork. Remember that any polishing with silicone wax must always be preceded by washing.

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

- Prevent deposits from remaining 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, in fact, residues, resins, fruits or leaves may fall from the trees, containing chemicals that are harmful to the paintwork.

CAUTION

DETERGENTS POLLUTE WATER. THEREFORE THE VEHICLE SHOULD BE WASHED IN AN AREA EQUIPPED FOR THE COLLECTION AND PURIFICATION OF THE LIQUIDS USED.

WARNING

NEVER WASH THE VEHICLE UNDER DIRECT SUNLIGHT, ESPECIALLY IN SUMMER WHEN THE BODYWORK IS STILL HOT, AS THE CAR SHAMPOO MAY DRY BEFORE BEING RINSED OFF, AND COULD DAMAGE THE PAINTWORK. NEVER USE RAGS SOAKED IN PETROL OR DIESEL OIL TO CLEAN THE PAINTED OR PLASTIC SURFACES, IN ORDER TO PREVENT THEM LOSING THEIR SHINE AND MECHANICAL CHARACTERISTICS.

WARNING

WHEN WASHING THE ENGINE WITH A HIGH-PRESSURE WATER JET:

- **ONLY USE FAN SPRAY JETS.**
- **DO NOT PLACE THE WATER JET NOZZLE CLOSER THAN 60 CM.**
- **DO NOT USE WATER AT TEMPERATURES OVER 40°C.**
- **DO NOT DIRECT THE JET AT THE THROTTLE BODY, THE ELECTRIC CABLES, THE COOLING SLITS IN THE TRANSMISSION COVER AND THE SPIRAL COVER.**

Troubleshooting**STARTING FAILURE**

Fuse blown

Replace the blown fuse and have the vehicle checked by an **Authorised Service Centre.**

STARTING DIFFICULTIES (SEE «STARTER PROBLEMS» SECTION)

| | |
|------------------------|---|
| Lack of fuel in tank. | Refuelling |
| Injection system fault | Contact an Authorised Service Centre |
| Fuel pump fault | Contact an Authorised Service Centre |
| Flat battery | Recharge the battery. |

**** IMPORTANT: DO NOT USE THE SCOOTER TO THE COMPLETE EXHAUSTION OF FUEL; SHOULD THIS OCCUR, DO NOT ATTEMPT TO START THE ENGINE. TURN THE IGNITION KEY TO «OFF» AND TOP-UP THE FUEL TANK AS SOON AS POSSIBLE. FAILURE TO FOLLOW THESE GUIDELINES COULD DAMAGE THE FUEL PUMP AND/OR THE CATALYTIC CONVERTER.***

IGNITION PROBLEMS

| | |
|--|--|
| Faulty spark plug | Contact an Authorised Service Centre. |
| Faulty ignition / injection control unit. Due to the presence of high voltage, this check should only be carried out by an expert. | Contact an Authorised Service Centre |

LACK OF COMPRESSION

| | |
|---|--|
| Loose spark plug. | Screw in the spark plug tightly |
| Cylinder head loose, piston gas rings worn. | Contact an Authorised Service Centre. |
| Valve stuck | Contact an Authorised Service Centre. |

HIGH CONSUMPTION AND LOW PERFORMANCE

| | |
|-----------------------------|---|
| Clogged or dirty air filter | Try to blow out with compressed air, otherwise replace the filter |
|-----------------------------|---|

INSUFFICIENT BRAKING

| | |
|---|--|
| Greasy disc. Worn pads. Faulty braking system. Presence of air in the front and rear brake circuit. | Contact an Authorised Service Centre. |
|---|--|

INEFFICIENT SUSPENSION

| | |
|--|--|
| Shock absorber fault, oil leak, end buffers damaged; shock absorber preloading incorrectly set | Contact an Authorised Service Centre. |
|--|--|

AUTOMATIC TRANSMISSION PROBLEMS

CVT rollers and/or drive belt
damaged

Contact an **Authorised Service
Centre.**

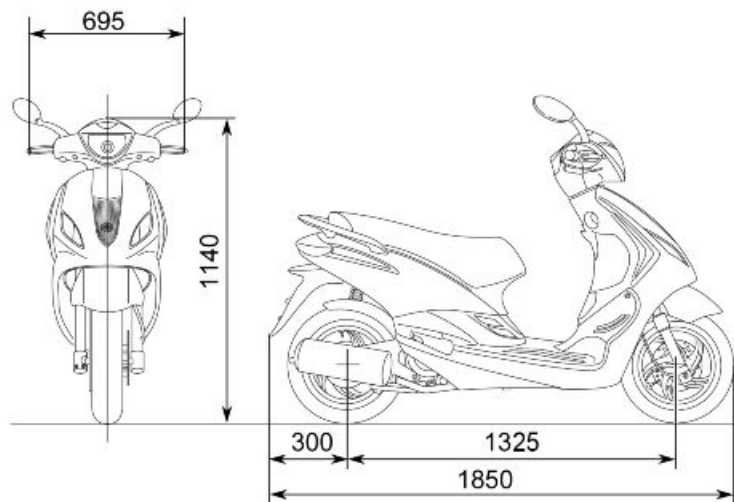
Fly 125 150 ie



PIAGGIO®



Chap. 04
Technical data



04_01

SPECIFICATIONS - 125 ENGINES

| | |
|----------------|---------------------------------------|
| ENGINE | Single-cylinder, 4-stroke Piaggio LEM |
| Cubic capacity | 124 cm ³ |
| Bore x stroke | 52 x 58.6 mm |
| Max. power | 8.9 kW at 8,250 rpm |

| | |
|-------------------|--|
| MAX. torque | 10.72 Nm at 6750 rpm |
| Compression ratio | 10.5 ±0.5 : 1 |
| Timing system | 3 valves, single overhead camshaft, chain-driven. |
| Valve clearance | Intake: 0.08 mm Exhaust: 0.08 mm |
| Spark plug | NGK CR8EB |
| Fuel system | Electronic injection P.I., throttle body with integrated control unit and dual-jet injector. |
| Cooling | Forced-air circulation cooling. |
| Lubrication | Wet crankcase |
| Starter | Electric |
| Gearbox | Continuously variable transmission with torque server |
| Clutch | Automatic centrifugal dry clutch |
| Fuel | Unleaded petrol |

SPECIFICATIONS - 150 ENGINES

| | |
|-----------------|---------------------------------------|
| ENGINE | Single-cylinder, 4-stroke Piaggio LEM |
| Engine capacity | 155 cm ³ |
| Bore x stroke | 58 x 58.6 mm |
| Max. power | 9.7 kW at 7750 rpm |

| | |
|-------------------|--|
| MAX. torque | 12.8 Nm at 6250 rpm |
| Compression ratio | 10.5 ±0.5 : 1 |
| Timing system | 3 valves, single overhead camshaft, chain-driven. |
| Valve clearance | Intake: 0.08 mm Exhaust: 0.08 mm |
| Spark plug | NGK CR8EB |
| Fuel system | Electronic injection P.I., throttle body with integrated control unit and dual-jet injector. |
| Cooling | Forced-air circulation cooling. |
| Lubrication | Wet crankcase |
| Starter | Electric |
| Gearbox | Continuously variable transmission with torque server |
| Clutch | Automatic centrifugal dry clutch |
| Fuel | Unleaded petrol |

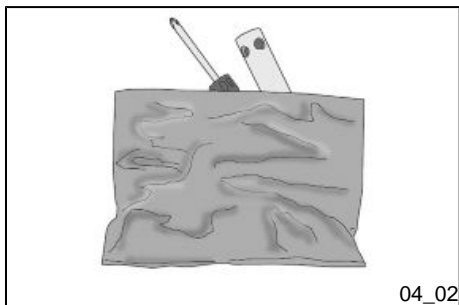
VEHICLE TECHNICAL DATA

| | |
|------------------|--|
| Chassis | Mono-cradle. Tubular steel frame with welded sheet metal reinforcements. |
| Front suspension | Hydraulic telescopic fork with Ø 32-mm stem, 76 mm travel. |

| | |
|--------------------------------------|---|
| Rear suspension | Adjustable 4-position spring preloading single shock absorber, 73 mm travel |
| Front brake | Disc brake (Ø 220 mm) with hydraulic control (lever on the far right of the handlebar) and double piston calliper Ø 25.4. |
| Rear brake | Disc brake (Ø 220 mm) with hydraulic control (lever on the far left of the handlebar) and calliper with counteracting pistons Ø 30. |
| Wheel rim type | Light alloy wheel rims. |
| Front wheel rim | 12" x 3.00 |
| Rear wheel rim | 12" x 3.00 |
| Front tyre | 120/70 - 12" Tubeless |
| Rear tyre | 120/70 - 12" Tubeless |
| Front tyre pressure (with passenger) | 1.8 bar (- bar) |
| Rear tyre pressure (with passenger) | 2 bar (2.3 bar) |
| Kerb weight | 124 kg |
| Maximum weight allowed | 300 kg |
| Battery | Sealed, 12 V / 10 Ah |

CAPACITIES

| | |
|--------------------|--|
| Engine oil | 1220 cc (of which 120 cc in the filtering cartridge) |
| Transmission oil | 200 cm ³ |
| Fuel tank capacity | ~ 7 litres (1.5 l of which is reserve) |



Toolkit (04_02)

The toolkit includes:

1. A box-spanner (16 mm) with internal rubber ring to extract spark plugs;
2. A twin screwdriver;
3. An open spanner (13 mm);
4. A wrench to adjust shock absorbers.
5. A T30 Torx wrench
6. A T25 Torx wrench

The toolkit plastic pouch is fastened to the saddle with a clamp. To take it out, just push the tabs at the same time you loosen the clamp.

Fly 125 150 ie



PIAGGIO®



**Chap. 05
Spare parts and
accessories**



Warnings (05_01)

WARNING



IT IS RECOMMENDED THAT "ORIGINAL PIAGGIO SPARE PARTS" BE USED, AS THESE ARE THE ONLY ONES OFFERING YOU THE SAME QUALITY ASSURANCE AS THOSE INITIALLY FITTED ON THE VEHICLE.

IT SHOULD BE REMEMBERED THAT USING NON-ORIGINAL SPARE PARTS CAUSES YOUR WARRANTY RIGHTS TO EXPIRE.

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.

Fly 125 150 ie



PIAGGIO®



**Chap. 06
Scheduled
maintenance**



06_01

Scheduled servicing table (06_01)

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 any further information concerning Warranty procedures and 'Scheduled Maintenance', please refer to the 'Warranty Booklet'.

SCHEDULED MAINTENANCE TABLE

| km x 1,000 | 1 | 5 | 10 | 15 | 20 | 25 | 30 |
|----------------------|---|---|----|----|----|----|----|
| Safety fasteners | I | | I | | I | | I |
| Spark plug | | I | R | I | R | I | R |
| Cartridge air filter | | | C | | C | | R |
| Centre stand bracket | | L | L | L | L | L | L |
| Driving belt (125cc) | | | I | | R | | I |
| Driving belt (150cc) | | | R | | R | | R |
| Throttle control | A | | A | | A | | A |
| Roller housing | | | I | | I | | I |
| Air filter | | | I | | I | | I |
| Engine oil filter | R | | R | | R | | R |

| km x 1,000 | 1 | 5 | 10 | 15 | 20 | 25 | 30 |
|--------------------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| Valve clearance | A | | A | | A | | A |
| Electrical system and battery | I | I | I | I | I | I | I |
| Cylinder ventilation system | | | | | | | I |
| Brake levers | L | | L | | L | | L |
| Brake fluid ** | I | I | I | I | I | I | I |
| Engine oil* | R | I | R | I | R | I | R |
| Hub oil | | | I | | I | | I |
| Headlight direction adjustment | | | A | | A | | A |
| Brake pads | I | I | I | I | I | I | I |
| Tyre pressure and wear | I | I | I | I | I | I | I |
| Vehicle road test | I | I | I | I | I | I | I |
| Odometer gear | | | L | | L | | L |
| Suspension | | | I | | I | | I |
| Steering | A | | A | | A | | A |
| Transmission | | | L | | L | | L |

I: CHECK AND CLEAN, ADJUST, LUBRICATE OR REPLACE, IF NECESSARY C: CLEAN; R: REPLACE; A: ADJUST; L: LUBRICATE

** Check level every 2,500 km*

*** Replace every 2 years*

RECOMMENDED PRODUCTS TABLE

| Product | Description | Specifications |
|----------------------|---|---|
| AGIP GEAR SAE 80W-90 | Lubricant for gearboxes and transmissions. | API GL-4 |
| AGIP BRAKE 4 | Brake fluid. | Synthetic fluid SAE J 1703 - FMVSS 116 - DOT 3/4 - ISO 4925 - CUNA NC 956 DOT 4 |
| eni i-Ride PG 5W-40 | Synthetic based lubricant for high-performance four-stroke engines. | JASO MA, MA2 - API SL - ACEA A3 |
| AGIP FILTER OIL | Special product for the treatment of foam filters. | - |
| AGIP GREASE MU3 | Yellow-brown, lithium-base, medium-fibre multipurpose grease. | ISO L-X-BCHA 3 - DIN 51 825 K3K -20 |
| AGIP GP 330 | Water repellent stringy calcium spray grease. | R.I.D./A.D.R. 2 10°b) 2 R.I.Na. 2.42 - I.A.T.A. 2 - I.M.D.G. class 2 UN 1950 Page 9022 EM 25-89 |

UNIT OF MEASURE - CONVERSION - ENGLISH SYSTEM TO INTERNATIONAL SYSTEM (IS).

| | |
|---------------------------------|---|
| 1 Inch (in) | 25.4 Millimetres (mm) |
| 1 Foot (ft) | 0.305 Metres (m) |
| 1 Mile (mi) | 1.609 Kilometres (km) |
| 1 US gallon (USgal) | 3.785 Litres (l) |
| 1 Pound (lb) | 0.454 Kilogram (kg) |
| 1 Cubic inch (in ³) | 16.4 Cubic centimetres (cm ³) |
| 1 Foot pound (lb ft) | 1,356 Newton meter (Nm) |

| | |
|-------------------------------|----------------------------------|
| 1 Miles per hour (mi/h) | 1.602 Kilometres per hour (km/h) |
| 1 Pound per square inch (PSI) | 0.069 (bar) |
| 1 Fahrenheit (°F) | $32+(9/5)$ Celsius (°C) |

6 Scheduled maintenance

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