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 scooter. Please read it carefully before riding the scooter for the first time. It contains information, tips and precautions for using your scooter. 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 scooter; should the scooter be sold, it must be transferred to the new owner.

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Ed. 2

The instructions given in this manual are intended to provide a clear, simple guide to using your scooter; 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 manual require the use of special tools and/or particular technical knowledge: to carry out these operations refer to any **authorised Dealer of 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 those parts of the booklet that should be read with particular care. As you can see, each sign consists of a different graphic symbol, making it quick and easy to locate the various topics.

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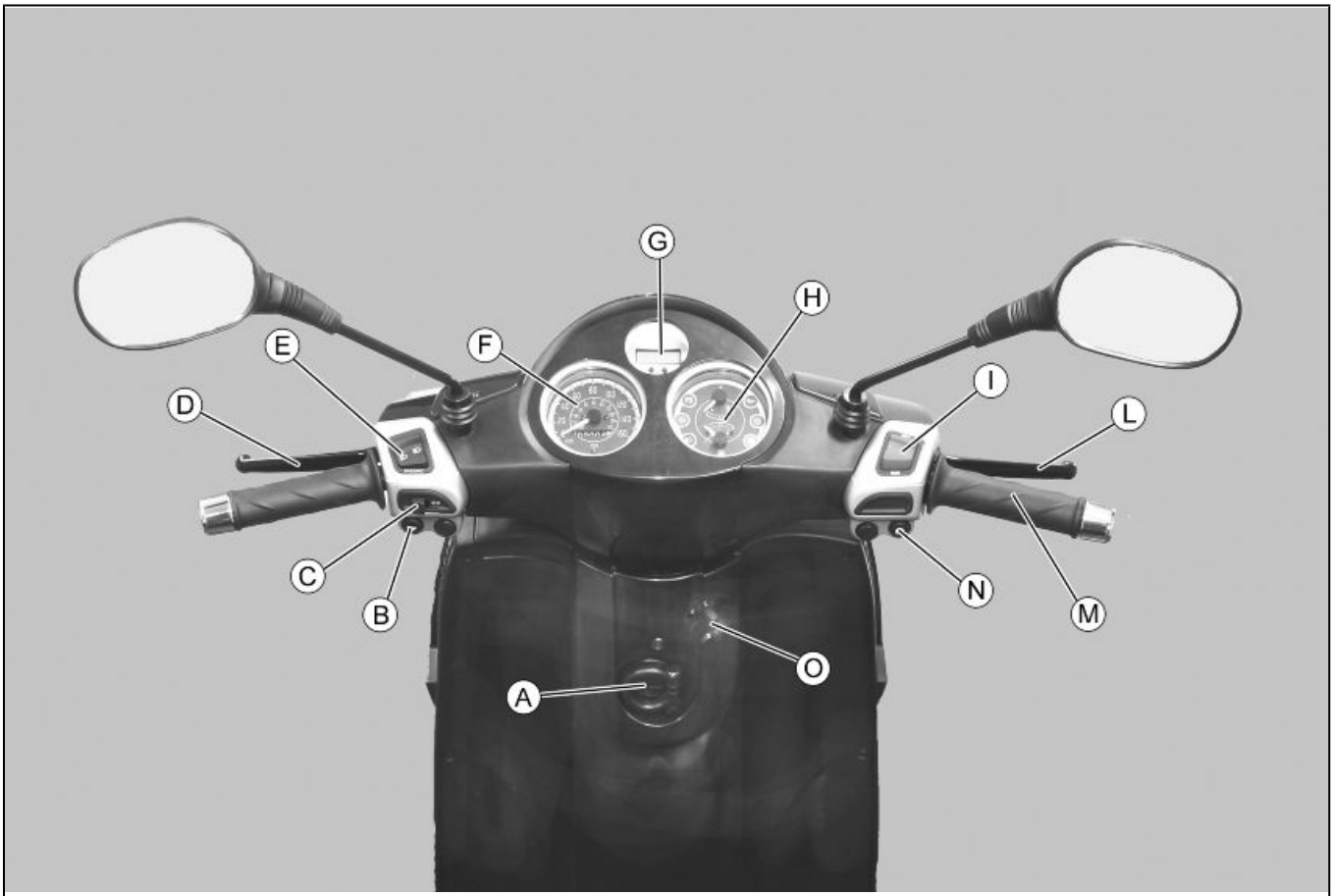
Chap. 01
Vehicle



01_01

Dashboard (01_01)

A = Bag hook

B = Horn button

C = Turn indicator switch

D = Rear brake lever

E = Light switch

F = Odometer and speedometer

G = Digital clock

H = Instrument panel and warning lights

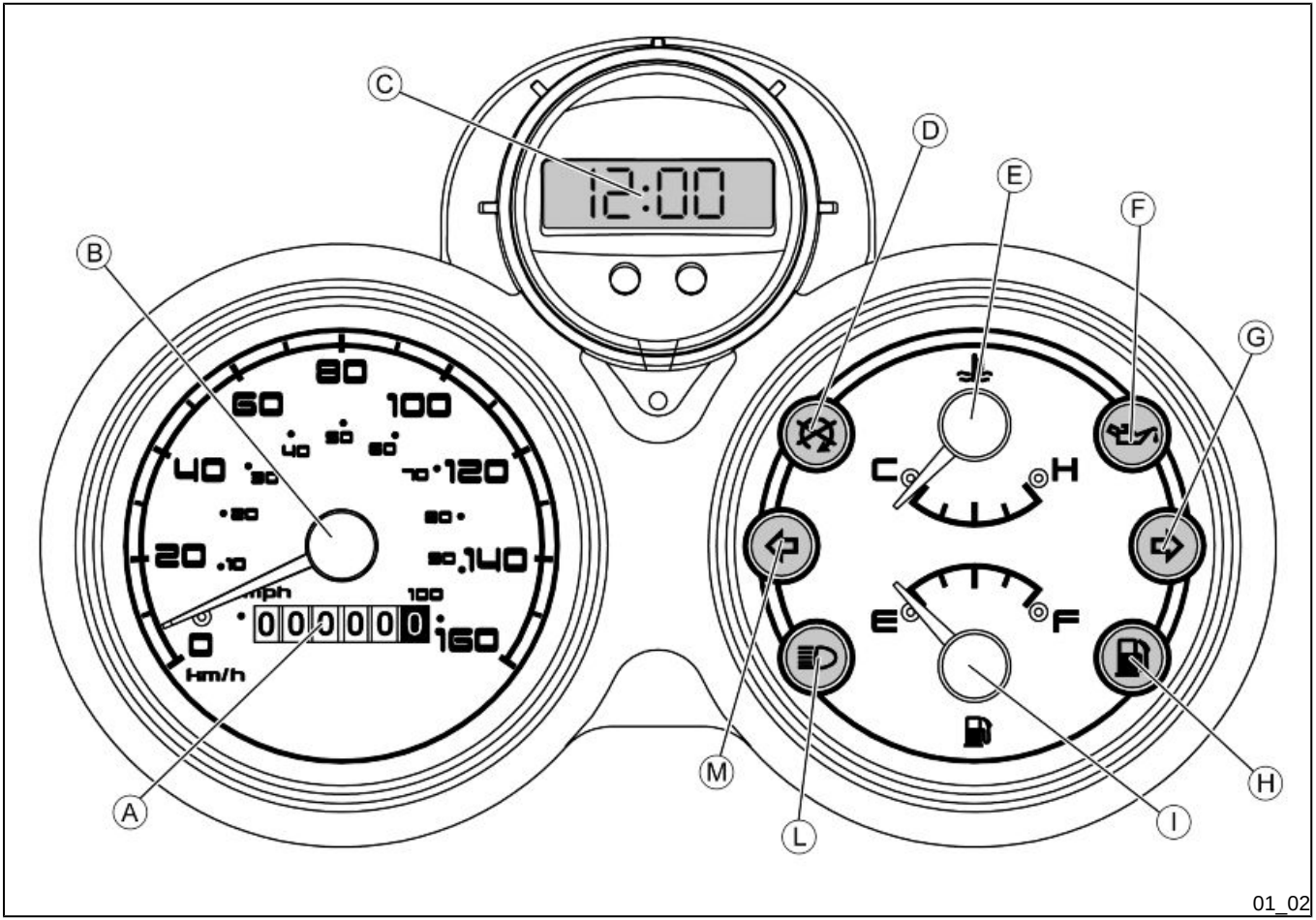
I = RUN OFF switch

L = Front brake lever

M = Throttle grip

N = Starter button

O= Key switch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01_02

Analogue instrument panel (01_02)

A = Odometer

B = Speedometer

C= Digital clock

D = RUN OFF warning light

E = Coolant temperature gauge

F = Low oil pressure warning light

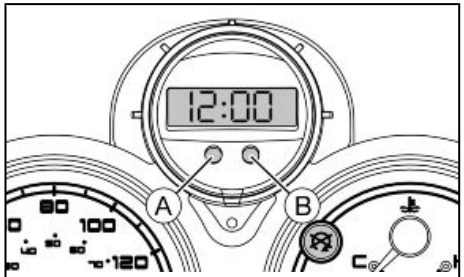
G = Right turn indicator warning light

H = Fuel level warning light

I = Fuel gauge

L = High-beam warning light

M = Left turn indicator warning light



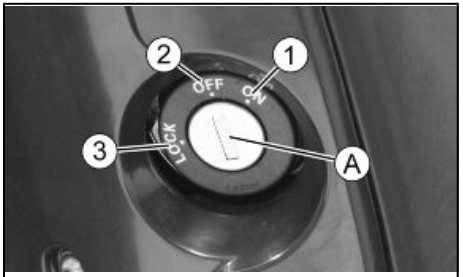
01_03

Clock (01_03)

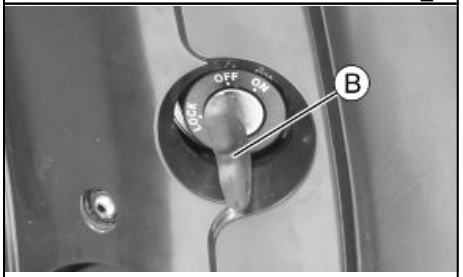
Located in the instrument panel, it displays hours and minutes with 1 to 12 hour time, AM or PM.

Operate the function selection button «**B**» and month, day and seconds are also displayed besides hours and minutes.

To adjust the different functions, select the desired function with button «**A**» and adjust with button «**B**». The time counter can be reset by pressing button «**A**» with the clock in the seconds function.



01_04



01_05

Key switch (01_04)

The key switch «**A**» is located on the front knee-guard panel near the bag hook.

SWITCH POSITIONS

ON«**1**»: Ready to start position, non-extractable key, mechanical antitheft device disabled.

OFF «**2**»: Ignition disabled, extractable key, mechanical antitheft device disabled.

LOCK «**3**»: Ignition disabled, extractable key, mechanical antitheft device enabled.

Locking the steering wheel

Turn the handlebar to the left as far as it will go; turn the key «**B**» to «**LOCK** » and remove it.

CAUTION

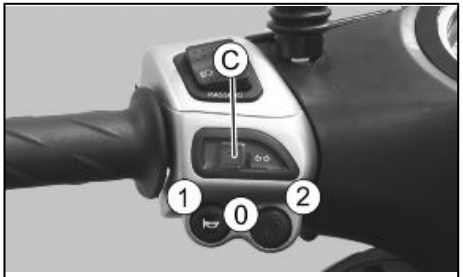
DO NOT TURN THE KEY TO «LOCK» OR «OFF» WHILE RIDING.

Releasing the steering wheel (01_05)

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

CAUTION

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



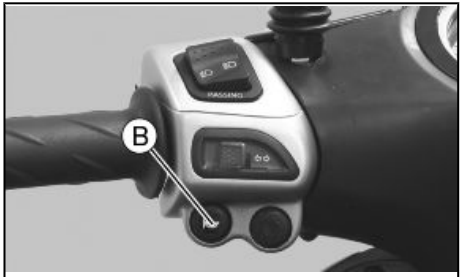
01_06

Switch direction indicators (01_06)

Lever «**C**» towards «**1**» = left turn indicators switched on;

Lever «**C**» towards «**2**» = right turn indicators switched on;

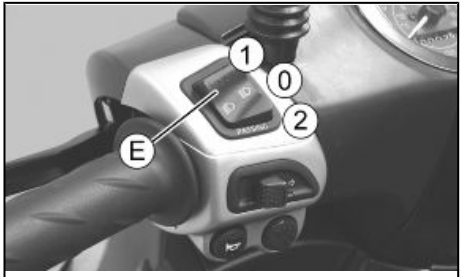
The lever «**C**» automatically goes back to its «**0**» position and the indicators remain on; push the lever «**C**» to turn them off.



01_07

Horn button (01_07)

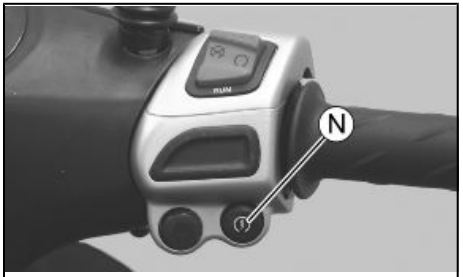
Push the button «**B**» to sound the horn.



01_08

Light switch (01_08)

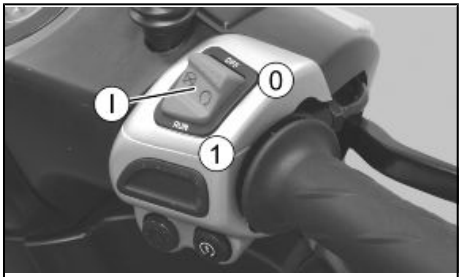
When the light switch «**E**» is set to «**0**», the low-beam light is on. When set to «**1**», the high-beam light is activated. If the light switch «**E**» is pressed when set to «**2**», the high-beam light is activated. The switch goes back to «**0**» automatically.



01_09

Start-up button (01_09)

To start the engine, press the starter button «**N**» after pulling either brake lever.

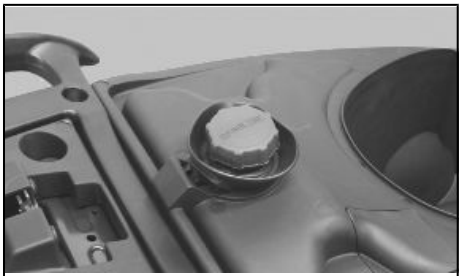


01_10

Engine stop button (01_10)

The engine can be started when the emergency cut-off switch «**I**» is set to «**1**» **RUN**; if the emergency cut-off switch «**I**» is set to «**0**» **OFF** , the engine cannot be started, or it shuts off if already running.

WHILE RIDING OPERATE THE ENGINE STOP SWITCH "I" ONLY IN CASE OF EMERGENCY.

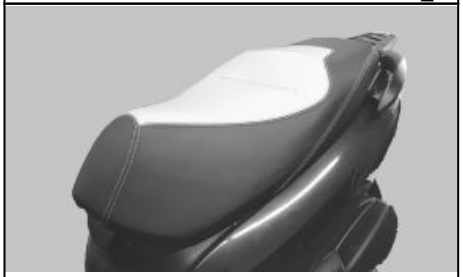


01_11

Accessing the fuel tank (01_11)

Insert the key into the switch and press it down until the saddle opens; then lift the saddle. In the event that the key switch is in "**LOCK**", turn the key to "**OFF**" or "**ON**" before pressing down.

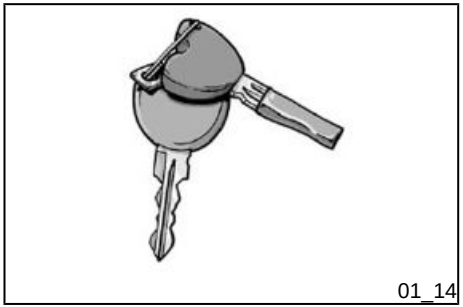
01_12



01_13

Opening the saddle (01_12, 01_13)

Push the key switch when it is in the «**ON**» or «**OFF**» position.



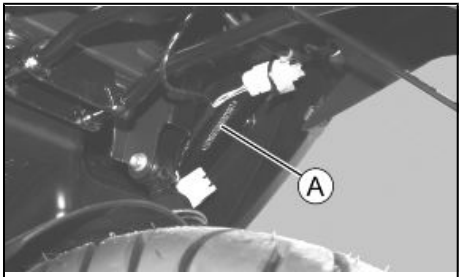
01_14

Keys (01_14)

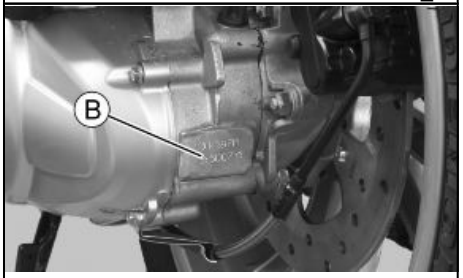
The vehicle is supplied with two keys (one spare) which serve to start the engine and unlock the saddle compartment. The keys are accompanied by a tag marked with the identification code to be quoted when ordering duplicates.

WARNING

WE RECOMMEND KEEPING THE DUPLICATE KEY TOGETHER WITH ITS CODE IN A SAFE PLACE AND NOT ON THE VEHICLE



01_15



01_16

Identification (01_15, 01_16)

Identification registration numbers are made up of a prefix and a number stamped on the chassis and on the engine. These numbers must always be quoted when ordering spare parts. We recommend checking that the chassis registration number stamped on the vehicle corresponds with that on the vehicle documentation.

CAUTION

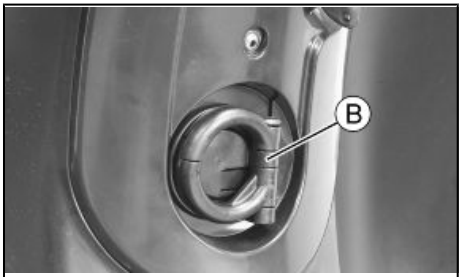
BE REMINDED THAT ALTERING IDENTIFICATION REGISTRATION NUMBERS CAN LEAD TO SERIOUS PENAL SANCTIONS (IMPOUNDING OF THE VEHICLE, ETC.).

Chassis number

The number «**A**» is stamped near the right shock absorber upper connection to the chassis.

Engine number

The engine number «**B**» is stamped near the rear left shock absorber lower support.



01_17

Bag clip (01_17)

To use the retractile bag hook «**B**» mounted on the knee-guard panel, pull it slightly towards the back part of the vehicle.

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Chap. 02
Use

Checks

Before using the vehicle, check:

1. That the fuel tank is full.

2. Front and rear brake fluid level

3. That the tyres are properly inflated.

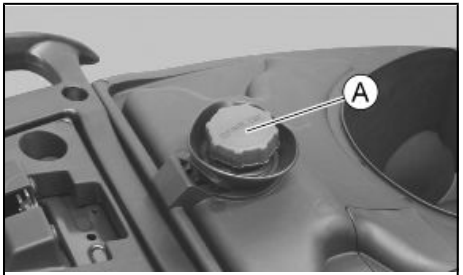
4. The correct functioning of the tail lights, the headlamp, the turn indicators, the stop light and the license plate light.

5. The correct functioning of the front and rear brakes.

6. The oil level in the gearcase.

7. The engine oil level.

8. The coolant level.



02_01

Refuelling (02_01)

Reach the fuel tank and unscrew the cap «**A**».

Use premium unleaded petrol, with minimum octane rating of 95.

A specific gauge on the instrument panel indicates the fuel level.

WARNING

SWITCH OFF THE ENGINE BEFORE REFUELLING WITH PETROL.

PETROL IS HIGHLY INFLAMMABLE.

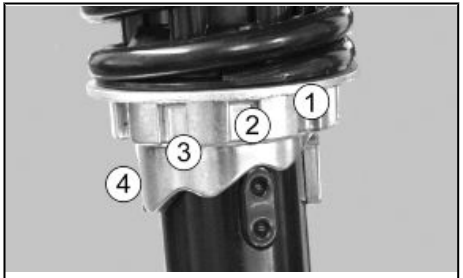
DO NOT SMOKE AND KEEP OPEN FLAMES AT A DISTANCE:FIRE HAZARD.

DO NOT INHALE FUEL FUMES.

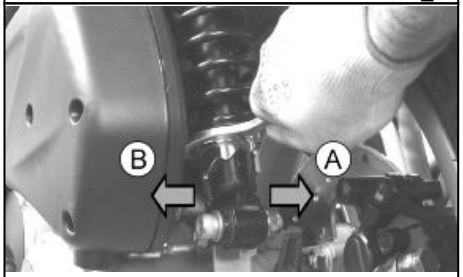
DO NOT ALLOW PETROL TO COME INTO CONTACT WITH HOT ENGINE OR ANY PLASTIC PARTS.

CAUTION

PETROL DAMAGES THE PLASTIC PARTS OF THE BODYWORK.



02_02



02_03

Shock absorbers adjustment (02_02, 02_03)

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

Position 1: minimum preload: driver only

Position 2 medium preloading: driver only

Position 3 medium preloading: rider and passenger

Position 4: maximum preloading: driver, 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.

WARNING

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

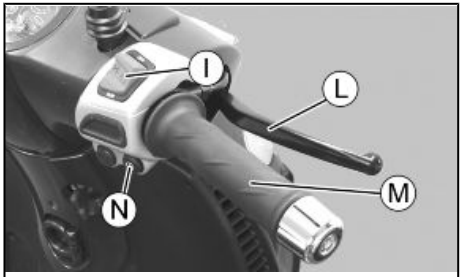
WARNING

WE STRONGLY RECOMMEND NOT TO ADJUST BOTH SHOCK ABSORBERS WITH DIFFERENT PRELOADING

Running in

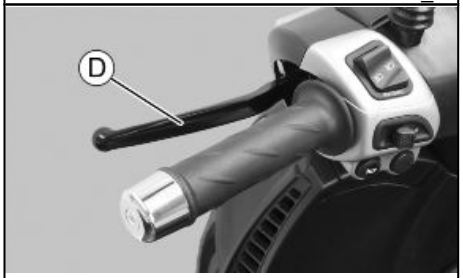
WARNING

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_04

02_05



02_06

Starting up the engine (02_04, 02_05, 02_06)

The vehicle is supplied with an ignition cut-off system, activated by the emergency cut-off switch. The engine cannot start if the **RUN**/**OFF** switch is set to **OFF**. If the engine is running, it shuts off when the **RUN**/**OFF** switch is pressed when in **OFF**. The scooter 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 still, progressively twist the throttle grip. The vehicle is equipped with an electric pump and a starter that switch on automatically as soon as the engine is started. In order to start the engine and before pressing the starter button «**N**», pull and hold the front brake lever «**L**» or the rear brake lever «**D**» to actuate the specific start-up enabling switch

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

2. Keep the throttle grip «**M**» completely untwisted.

3. Insert the key into the switch «**O**» and turn it to «**ON**».

4. Make sure that the switch «**I**» «**RUN**/**OFF**» is set to «**RUN**».

5. Pull the front brake lever «**L** » or the rear brake lever «**D**» and then press the starter button «**N**».

WARNING

THE AUTOMATIC TRANSMISSION MAKES THE REAR WHEEL TURN EVEN WHEN THE THROTTLE IS SLIGHTLY TWISTED. RELEASE THE BRAKE CAREFULLY AFTER STARTING, AND THEN ACCELERATE GRADUALLY.

CAUTION

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

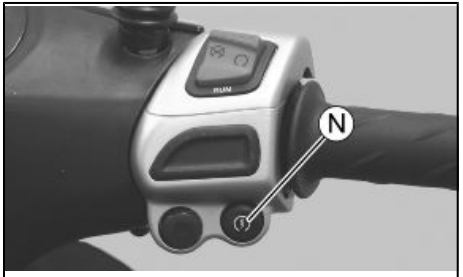
Precautions

WARNING

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 EXCESSIVE REVOLUTIONS, THE REVOLUTION LIMITER WILL BE ACTIVATED IF THE ENGINE SPEED EXCEEDS THE ESTABLISHED THRESHOLD. DO NOT ACTIVATE THE REVOLUTION LIMITER RECURRENTLY SO AS TO AVOID DAMAGING THE CATALYTIC CONVERTER.

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.



02_07

Difficult start up (02_07)

Should there be any problem, proceed as follows:

1. **If the engine is flooded**. Follow the same sequence of operations described above. Fully accelerate and press the starter button«**N**» for 5 seconds and then stop for 5 seconds keeping the throttle fully twisted to avoid fuel delivery to the cylinder.

If the engine does not start after a few attempts, let the engine rest for a few minutes and then repeat the above operations. In any case do not operate the starter long in the attempt to start the engine.

As a last alternative, remove the spark plug and operate the engine start-up to so as to expel fuel excess; then refit the spark plug and repeat the process from point 1.

2. **If the engine overheats**. Follow the same sequence of operations keeping the throttle grip slightly twisted.

If the scooter fails to start even after using any of the procedures described above, take it to an **Authorised Dealer or Service Centre.**

02_08

Stopping the engine (02_08)

Fully untwist the throttle grip, then rotate the key in the switch «**A** » to «**KEY OFF**» (extractable key).

CAUTION

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

CAUTION

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

WARNING

TO START AFTER A LONG STATIONARY PERIOD, OR IN SEVERE WEATHER CONDITIONS, FULLY TWIST THE THROTTLE 2÷3 TIMES BEFORE PRESSING THE STARTER BUTTON.

02_09

Stand (02_09)

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

Automatic transmission

To ensure simple, pleasurable riding, the vehicle is equipped with automatic transmission with regulator and centrifugal clutch. The system is designed to provide the best performance (acceleration and consumption) while riding on both flat roads and uphill.

If you have to stop on an uphill slope (traffic lights, traffic jam, etc.) **use only the brake to keep the vehicle still, leaving the engine running at idle speed. Using the engine to keep the vehicle still can cause the clutch to overheat, due to the friction of the clutch mechanism itself against the clutch bell.**

It is therefore recommended to avoid conditions of prolonged clutch slippage (other than those previously indicated) like driving uphill fully laden on steep slopes or starting off with driver and passenger at slopes with steepness greater than 25%.

Observe the following precautions if the clutch overheats:

1. Do not continue riding in such conditions.

2. Let the clutch cool down with the engine at idle speed for a few minutes.

Safe driving

Some simple tips are provided below that will enable you to use your scooter on a daily basis in greater safety and peace of mind. Your skill and your mechanical knowl-

edge are the basis of a safe ride. We recommend trying out the vehicle in traffic - free zones, in order to acquire a good knowledge of the vehicle it self.
1. Before riding off, remember to put on your helmet and fasten it correctly.

2.Reduce speed on rough roads and drive with care.

3. After driving on a long stretch of wet road without using the brakes, the braking effect is initially lower. In these conditions, it is a good idea to apply the brakes from time to time.

4. Do not brake hard on wet, unsurfaced or slippery road surfaces.

5. Avoid riding off by mounting the scooter 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.

6. If driving over roads affected by sand, mud, snow mixed with salt, etc. we recommend cleaning the brake disc with a non-corrosive detergent frequently in order to prevent corrosive particles from building up in the holes, which may cause early break pad wear.

CAUTION

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

CAUTION

ANY CHANGES TO THE VEHICLE PERFORMANCE AS WELL AS ALTERATIONS TO 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.

WARNING

IN ORDER TO PREVENT ANY ACCIDENTS RIDE VERY CAREFULLY WHEN ADDING ACCESSORIES AND CARRYING LUGGAGE. THE ADDITION OF ACCESSORIES AND BAGGAGE CAN REDUCE THE STABILITY AND PERFORMANCE OF THE SCOOTER, AS WELL AS DECREASE THE LEVEL OF SAFETY DURING ITS USE. NEVER DRIVE THE SCOOTER EQUIPPED WITH ACCESSORIES AT A SPEED HIGHER THAN 100 km/h (see section "SPARE PARTS AND ACCESSORIES")

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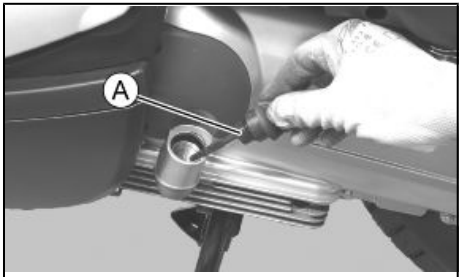
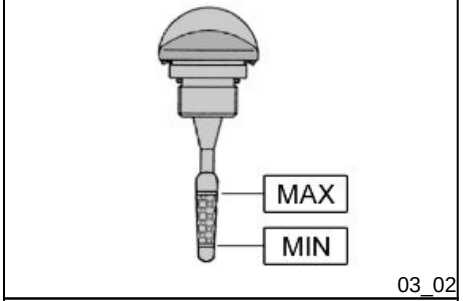
Chap. 03
Maintenance



03_01



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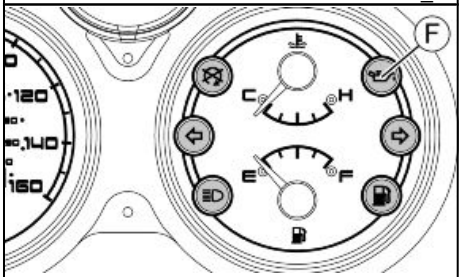


03_03

Engine oil level

In 4T engines, the engine oil is used to lubricate the distribution elements, the bench bearings and the thermal group. **An insufficient quantity of oil can cause serious damage to the engine.** In all four-stroke engines, a loss of efficiency in oil performance and 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). **In order to prevent any problems, we recommend checking the oil level any time you use the vehicle. The scooter is, however, equipped with an oil pressure warning light on the instrument panel.**

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 reference marks on the dipstick «**A**»; during the oil check, 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 line 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.

Engine oil top-up

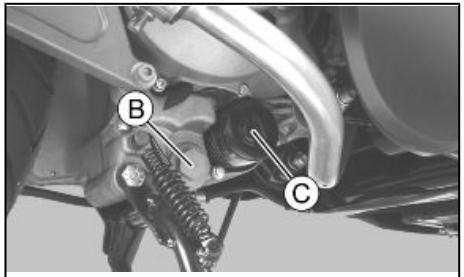
Always check oil level before topping-up and add oil **without exceeding the MAX level**. Getting an oil level between the **MIN** and **MAX** levels requires **~ 400 cm³** of oil. Take your vehicle to an **Authorised Service Centre** to have the engine oil checked and topped-up, if required, as indicated in the scheduled maintenance tables.

Warning light (insufficient oil pressure) (03_03)

The scooter is equipped with a warning light «**F**» that lights up when the key is turned to «**ON**».

However, this light should switch off once the engine has been started.

If the light comes on during braking, at idling speed or while turning a corner, it is necessary to check the oil level and top-up if required. If after having topped



03_04

up the oil, the warning light still turns on while braking, at idle speed or while turning a corner, it will be necessary to turn to an Authorised Service Centre.

Engine oil change (03_04)

The oil and the cartridge filter «**C**» must be changed as indicated in the scheduled maintenance tables at an **Authorised Service Centre**. The engine should be emptied by draining the oil from the drainage plug «**B** » of the gauze filter on the flywheel side. In order to facilitate the oil drainage, loosen the cap/dipstick. Since a certain quantity of oil still remains in the circuit, refill with approx. 850 ÷ 900 cm^3 of oil through the cap «**A**. Then start up the scooter, leave it running for a few minutes and switch it off: after five minutes, check the level and if necessary, top-up **without exceeding the MAX. level**. The cartridge filter must be replaced at every oil change. For top-ups and changes, use new oil of the recommended type.

WARNING

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

WARNING

EXCESSIVE OIL LEVEL AT TOP-UPS CAN LEAD TO SCALE FORMATION AND VEHICLE MALFUNCTIONING.

CAUTION

USED OILS CONTAIN SUBSTANCES HARMFUL TO THE ENVIRONMENT. FOR OIL REPLACEMENT, CONTACT AN AUTHORISED PIAGGIO SERVICE CENTRE, AS THEY ARE EQUIPPED TO DISPOSE OF SPENT OILS IN AN ENVIRONMENTALLY FRIENDLY AND LEGAL WAY.

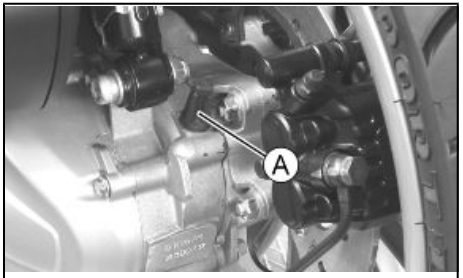
CAUTION

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

Recommended products

AGIP CITY HI TEC 4T

Engine oil
SAE 5W-40, API SL, ACEA A3, JASO MA Synthetic oil



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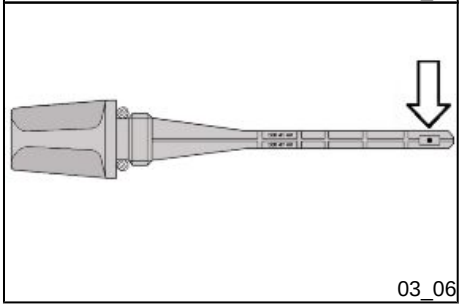

03_06

Hub oil level (03_05, 03_06)

Check the oil in the rear hub.

To check the rear hub oil level, proceed as follows:

1) Park the scooter on level ground and place it on the centre stand.

2) Unscrew the dipstick **"A**", dry it with a clean rag and then reinsert it, **screwing it tightly into place**;

3) Remove the dipstick and check that the oil level is above the first reference from the bottom.

4) Screw the dipstick back in, checking that it is locked in place.

N.B.

THE REFERENCE MARKS ON THE HUB OIL LEVEL DIPSTICK, EXCEPT FOR THE ONE INDICATING THE "MAX" LEVEL, REFER TO OTHER MODELS BY THE MANUFACTURER AND HAVE NO SPECIFIC FUNCTION FOR THIS MODEL.

CAUTION

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

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.

CAUTION

UPON REPLACING HUB OIL, AVOID THE OIL COMING INTO CONTACT WITH THE REAR BRAKE DISC.

Recommended products

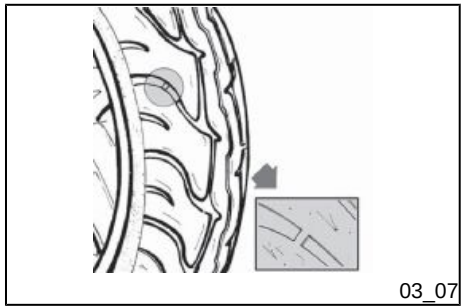
AGIP ROTRA 80W-90

Rear hub oil
SAE 80W/90 Oil that exceeds the requirements of API GL3 specifications

Characteristic

Hub Oil Quantity

See the Technical Data Chapter



03_07

Tyres (03_07)

Check tyre pressure frequently. Tyres feature wear indicators; replace tyres as soon as these indicators become visible on the tyre tread. Also check that the tyres do not show signs of splitting at the side or irregular tread wear; if this occurs, go to an authorised workshop or at least to a workshop equipped to perform 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.

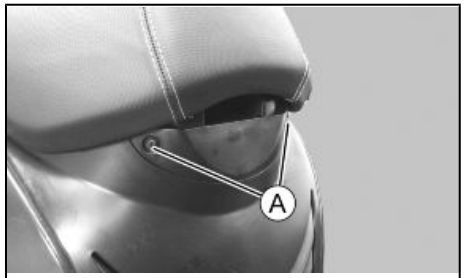
Characteristic

Front tyre pressure (with passenger)

2 bar (2 bar)

Rear tyre pressure (with passenger)

2.2 bar (2.3 bar)



03_08

Spark plug dismantlement (03_08, 03_09, 03_10)

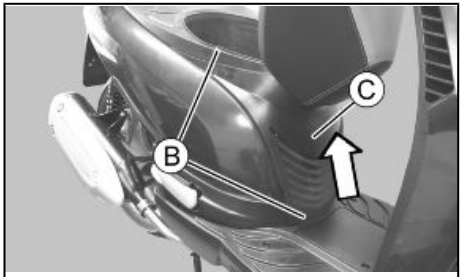
To remove the spark plug, proceed as follows:
1. Unscrew both screws « **A**» and remove the cover.

2. Working from both sides of the scooter, undo screws «**B**».

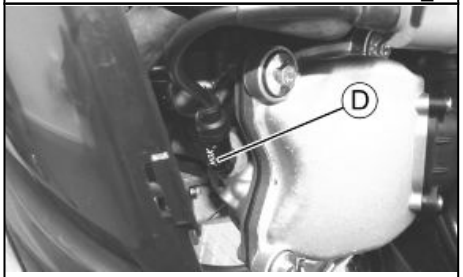
3. Remove the inspection cover «**C**» by pulling it upwards.

4. Disconnect spark plug HV wire cap «**D**».

5. Unscrew the spark plug using the wrench supplied.



03_09



03_10

When refitting, place the spark plug into the hole at the required angle and tighten by hand until it is finger tight. Use the wrench only to lock it. Once locked, insert the cap «**D**» on the spark plug. Refit the covers.

N.B.

THE USE OF SPARK PLUGS OTHER THAN THE INDICATED TYPE OR OF SHIELDLESS SPARK PLUG CAPS CAN CAUSE ELECTRICAL SYSTEM FAILURES.

WARNING

SPARK PLUGS MUST BE REMOVED WHEN THE ENGINE IS COLD. CHECK THE SPARK PLUG AS INDICATED IN THE SCHEDULED MAINTENANCE TABLE. USING NON-COMPLYING ELECTRONIC CENTRAL UNITS AND ELECTRONIC IGNITIONS OR SPARK PLUGS OTHER THAN THOSE PRESCRIBED MAY SERIOUSLY DAMAGE THE ENGINE. IF THE SPARK PLUG IS REMOVED AFTER A FLOODED ENGINE (EXCESSIVE FUEL EXPULSION IN THE «SAFE RIDING» SECTION), KEEP THE TUBE CONNECTED TO THE SPARK PLUG AND THE LATTER IN CONTACT WITH A GROUND POINT FAR FROM THE SPARK PLUG HOLE ITSELF IN ORDER TO AVOID THE EXPELLED FUEL FROM CATCHING FIRE.

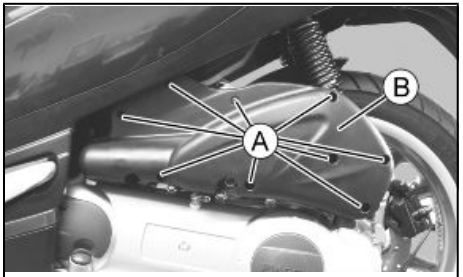
Characteristic

Spark plug

See the Technical Data Chapter

Electrode gap

0.7-0.8 mm



03_11

Removing the air filter (03_11)

Unscrew the nine fixing screws «**A**» and remove cover «**B**».

Air filter cleaning

1. Wash the sponge with water and neutral soap.

2. Dry it with a clean cloth and small blasts of compressed air.

3. Impregnate the sponge with a mixture of 50% petrol and 50% specified oil.

4. Gently squeeze the filter element, let it drip and then refit it.

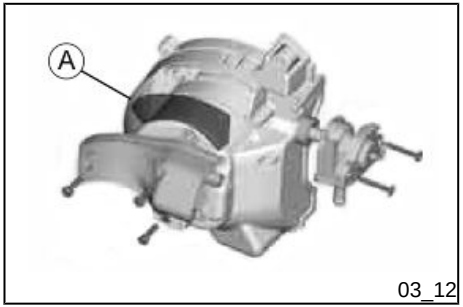
CAUTION

IF THE VEHICLE IS USED ON DUSTY ROADS IT IS NECESSARY TO CARRY OUT MAINTENANCE CONTROLS OF THE AIR FILTER TO AVOID DAMAGING THE ENGINE.

Recommended products

AGIP FILTER OIL

Oil for air filter sponge
Mineral oil with specific additives for increased adhesiveness



03_12

Secondary air system (03_12)

In order to reduce polluting emissions, the vehicle is furnished with a catalytic converter in the muffler.

To facilitate the catalytic process, a further quantity of previously filtered air is brought in through the exhaust duct on the head by the secondary air system (SAS).

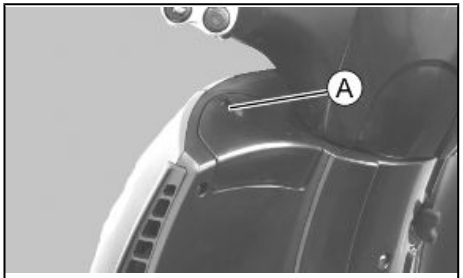
This system allows more oxygen to be added to the unburned gases before reaching the catalytic converter, thus improving the catalytic converter reaction.

The system has a control valve that disables operation during deceleration in order to avoid abnormal noises.

To ensure the best functioning of the SAS, take your vehicle to an **Authorised Service Centre** for maintenance operations, at the intervals indicated in the scheduled maintenance table.

This system requires a filter «**A**».

The filter sponge should be cleaned with water and mild soap, then it should be dried with a cloth and slight blows of compressed air.



03_13

Cooling fluid level (03_13, 03_14, 03_15, 03_16)

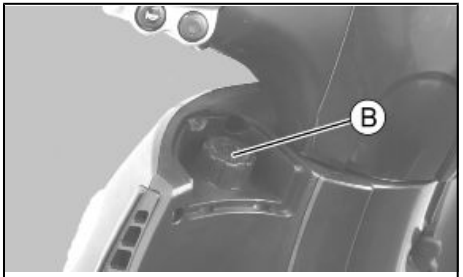
Engine cooling is carried out by a forced-circulation coolant system. The cooling circuit holds approx. 2 litres of coolant consisting of a mixture of 50% de-ionised water and 50% glycol ethylene-based antifreeze solution with corrosion inhibitors.

The coolant supplied with the scooter is already mixed and ready for use.

For proper functioning of the engine, ensure that the temperature of the coolant is always within the middle zone of the gauge «**E**». If the needle of the gauge enters the red zone, switch off the engine, allow to cool down and check the coolant level; if the level is OK, contact an **Authorised Service Centre.**

Check coolant when the engine is cold as indicated in the scheduled maintenance tables, following the steps below.

a) Place the scooter upright on its stand. remove the cover by taking out the screw «**A**».



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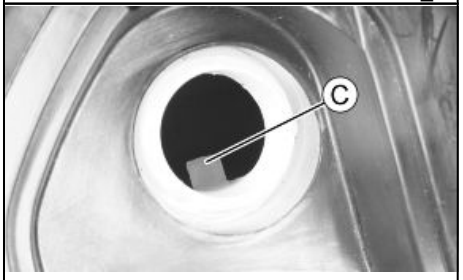

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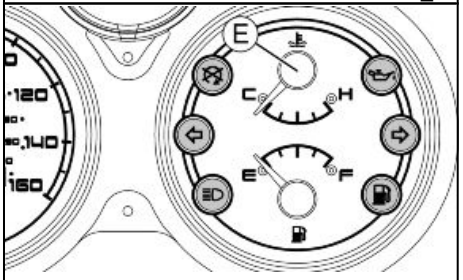


03_16

b) Remove the expansion tank cover «**B**», turning it anticlockwise.

c) Look inside the expansion tank and check that the reference tongue «**C**» is covered.

d) Top-up the expansion tank if the coolant level does not reach the reference tongue «**C**».

If the level is not correct, proceed with the top-up operation to be carried out when the engine is cold. If it is necessary to top up the coolant frequently, or if the expansion tank is completely dry, you should look for the cause in the cooling system. It is therefore essential to have the cooling system checked at an **Authorised Service Centre**.

Replace coolant as indicated in the scheduled maintenance table. Take your vehicle to an **Authorised Service Centre** for this operation.

WARNING

IN ORDER TO AVOID BURNS, DO NOT UNSCREW THE EXPANSION TANK CAP WHILE THE ENGINE IS STILL HOT.

WARNING

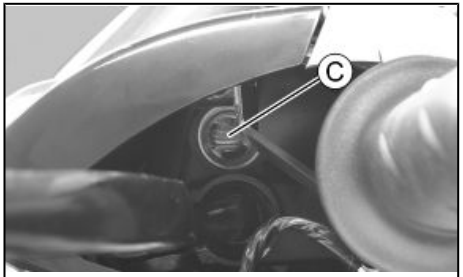
IN ORDER TO AVOID HARMFUL FLUID LEAKS WHILE RIDING, IT IS IMPORTANT TO MAKE SURE THAT THE LEVEL DOES NOT EXCEED THE REFERENCE TONGUE TOO MUCH.

IN ORDER TO GUARANTEE THE PROPER FUNCTION OF THE ENGINE, IT IS NECESSARY TO KEEP THE RADIATOR GRILLE CLEAN.

Recommended products

SPECIAL AGIP PERMANENT fluid

coolant
Monoethylene glycol-based antifreeze fluid, CUNA NC 956-16



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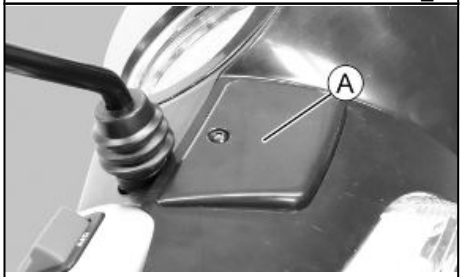

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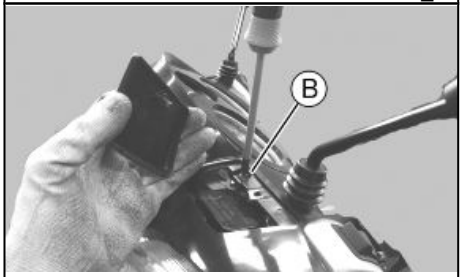


03_19

Checking the brake oil level (03_17)

The brake fluid tanks of the front and rear brakes are located on the pumps under the covers on the handlebar. To check the level, proceed as follows:

1. Place the scooter on its centre stand and make sure the handlebar is centred;

2. Check the fluid level through the respective sight glass "**C**".

A certain lowering of the level is caused by wear on the pads. Should the level appear to be below the minimum mark, please contact an **Authorised Service Centre or Dealer** in order to have a thorough inspection of the braking system carried out.

Braking system fluid top up (03_18, 03_19, 03_20, 03_21, 03_22, 03_23, 03_24, 03_25)

Proceed as follows:

1. Remove both inspection covers «**A**».

2. Unscrew the two screws «**B**» (one per side).

3. Unscrew the five screws «**C**».

4. Remove the right and left control units.

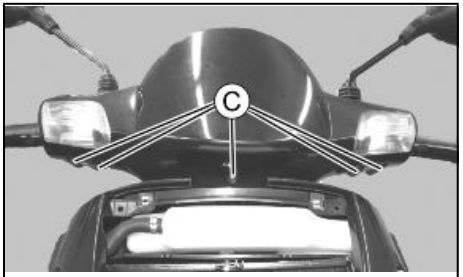
5. Unscrew the two screws «**D**» and remove the front handlebar cover (one per side).

6. Remove the rear-view mirrors by unscrewing the nut «**E**».

7. Unscrew the four screws «**F**» (two per side).

8. Remove the reservoir cover «**G**» by loosening the two fixing screws and refill with the prescribed brake fluid type only and without exceeding the maximum level.

Under standard climatic conditions, replace coolant as indicated in the scheduled maintenance table. This operation must be carried out by trained technicians; take your scooter to an **authorised Service Centre or Dealer.**



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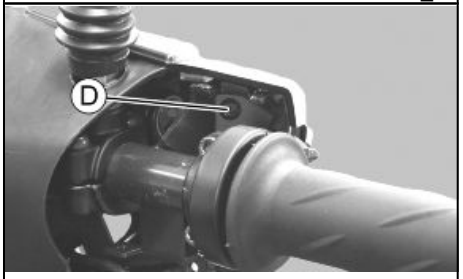
03_21



03_22

WARNING

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

.

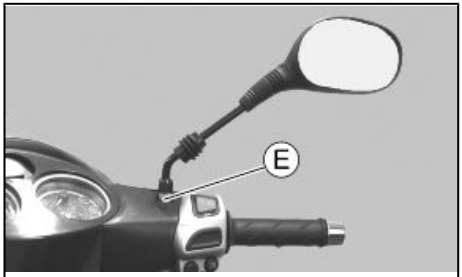
CAUTION

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.

Recommended products

AGIP BRAKE 4

Brake fluid
FMVSS DOT 4 Synthetic fluid



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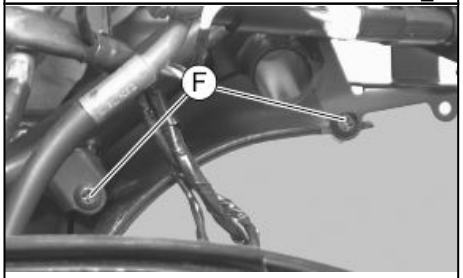

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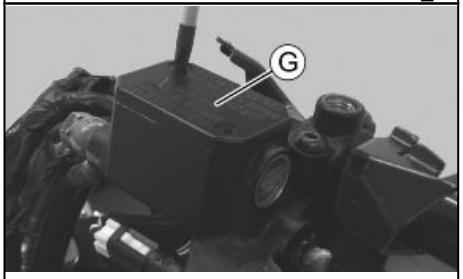

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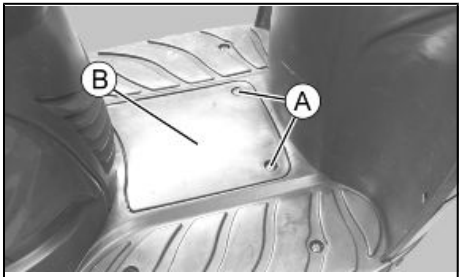

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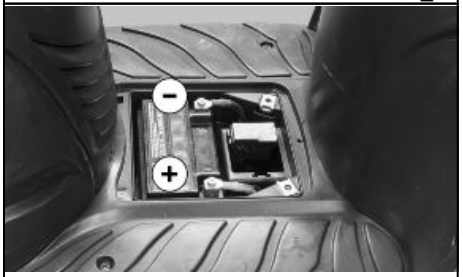


03_27

Battery (03_26)

To access the battery, proceed as follows:

1. Place the scooter on its centre stand.

2. Undo the two screws «**A**» and remove the battery cover «**B**».

The battery is the electrical device that requires the most frequent inspections and diligent maintenance.

Use of a new battery (03_27)

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

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

Characteristic

Battery

See the Technical Data Chapter

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 plus residual absorption by vehicle components with constant power consumption. Poor battery performance may also be due to environmental conditions and the cleanness 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**.

CAUTION

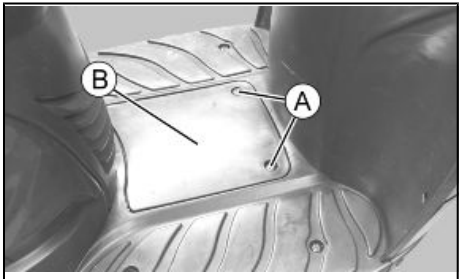
THE BATTERY MUST BE CHARGED WITH A CURRENT EQUAL TO 1/10 OF THE RATED CAPACITY OF THE BATTERY AND FOR NOT LONGER THAN 10 HOURS. CONTACT AN AUTHORISED SERVICE CENTRE TO CARRY OUT THIS OPERATION SAFELY. WHEN REFITTING THE BATTERY MAKE SURE THE LEADS ARE CORRECTLY CONNECTED TO THE TERMINALS.

WARNING

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

WARNING

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



03_28

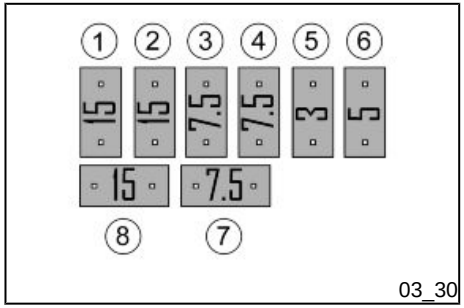

03_29

Fuses (03_28, 03_29, 03_30)

The electrical system has six protection fuses. To reach the board of fuses, unscrew the two screws «**A**» and remove the battery cover «**B**».

CAUTION

BEFORE REPLACING THE 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_30

FUSE TABLE

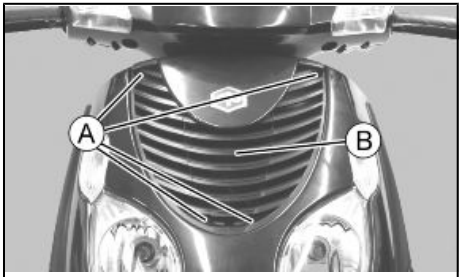
Fuse No. 1	**Capacity:**15A **Protected circuits:**Electric fan, Battery recharge circuit, Electronic ignition device, Clock, Electronic ignition device, Wiring for antitheft device, Lines protected by fuses 4.5 and 6.
Fuse No. 2	**Capacity:**15A **Protected circuits:**Headlight Remote control.
Fuse No. 3	**Capacity:**7.5 A **Protected circuits:**Start-up circuit, Stop light remote control.
Fuse No. 4	**Capacity:**7.5 A

	Protected circuits: Instrument panel gauges and warning lights, Horn, Light switch, Headlight remote control, Wiring for anti-theft device.
Fuse No. 5	**Capacity:**3A **Protected circuits:**Electric pump control device.
Fuse No. 6	**Capacity: 5**A **Protected circuits:**Front tail light, Rear tail light, Instrument panel lighting, License plate light.
Fuse No. 7	**Capacity:**7.5 A **Protected circuits:**Free.
Fuse No. 8	**Capacity:**15A **Protected circuits:**Free.

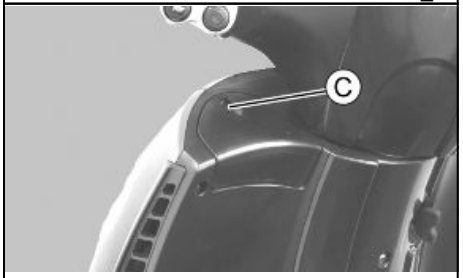
LIGHT BULB TABLE

High-beam light bulb	**Type:** HALOGEN (H11) **Power:** 12V - 55W **Quantity:** 1
Low-beam bulb	**Type:** HALOGEN (H11)

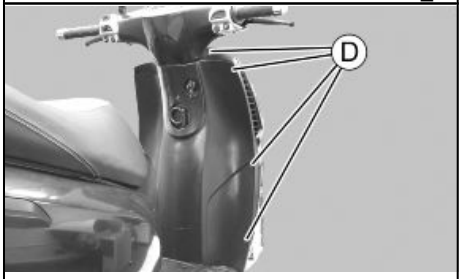
	Power: 12V - 55W **Quantity:** 1
Front tail light bulb	**Type:** ALL GLASS **Power:** 12V - 5W **Quantity:** 2
Instrument panel bulb	**Type:** ALL GLASS **Power:** 12V - 1.2W **Quantity:** 5
Front turn indicator bulb	**Type:** SPHERICAL **Power:** 12V - 10W **Quantity:** 1 RHS + 1 LHS
Rear turn indicator bulb	**Type:** SPHERICAL **Power:** 12V - 10W **Quantity:** 1 RHS + 1 LHS
Twin-filament stop/tail light bulb	**Type:** SPHERICAL **Power:** 12V - 5/21W **Quantity:**1
License plate light bulb	**Type:** ALL GLASS **Power:** 12V - 5W **Quantity:** 1



03_31



03_32



03_33

Front light group (03_31, 03_32, 03_33, 03_34, 03_35)

CAUTION

CARRY OUT THESE OPERATIONS WHEN THE ENGINE IS COLD.

CAUTION

DETACH THE BATTERY POLES.

To access the bulbs:
1. Undo the four screws «**A**» and remove the front case «**B**».

2. Undo the screw «**C**» and remove the access cover to reach the expansion tank cap.

3. Working from both sides of the scooter, unscrew the eight screws «**D**».

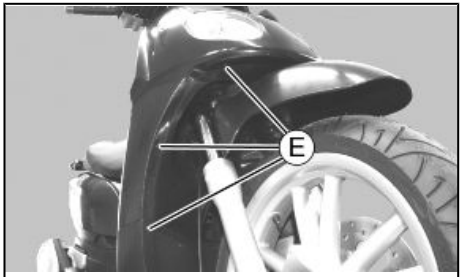
4. Working from both sides of the scooter, unscrew the six screws «**E**» and remove the front shield.

To replace the tail light bulbs «**F**» take out the rubber bulb holder from its fitting and insert the bulb.
To replace the high-beam bulb «**G**» and the low-beam bulb «**H**» take out the bulb holder from its fitting by turning it anticlockwise. Slide off the bulbs by pressing it slightly and turning it anticlockwise.

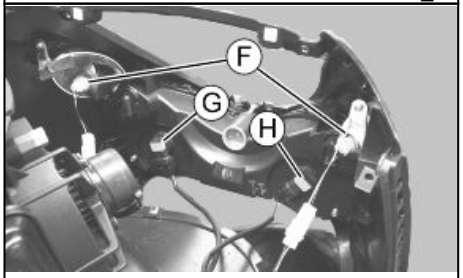
Headlight adjustment (03_36, 03_37)

Proceed as follows:

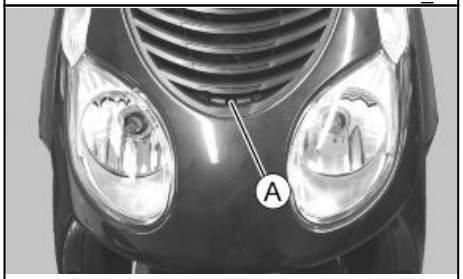
1. Position the unloaded scooter, in running order and with the tyres inflated to the prescribed pressure, onto a flat surface 10 m away from a half-lit white screen; ensure the axis of the scooter is perpendicular to the screen;



03_34



03_35



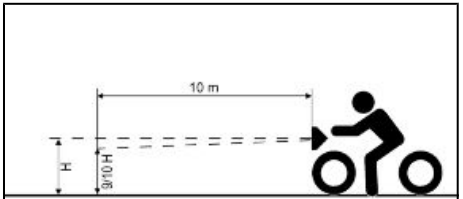
03_36

2. Turn on the headlight and check that the limit of the projected light beam is not over 9/10 or below 7/10 of the distance from the ground to the centre of the headlight;

3. If this is not the case, regulate the headlight by turning 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.



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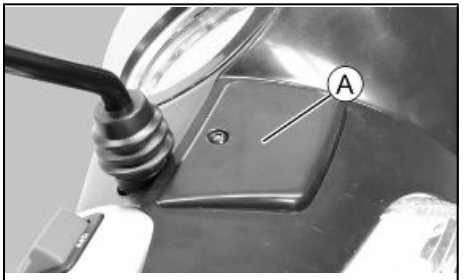

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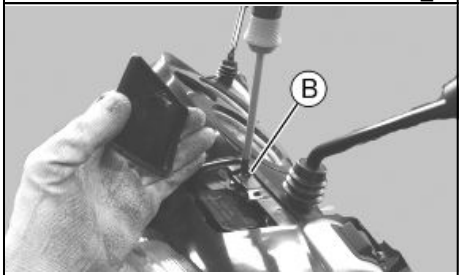


03_39

Front direction indicators (03_38, 03_39, 03_40, 03_41, 03_42, 03_43)

To access the bulbs:

1. Working from both sides of the scooter, remove both inspection covers from calliper oil reservoirs «**A**».

2. Undo the two screws «**B**».

3. Undo the five screws «**C**».

4. Remove the right and left control assemblies.

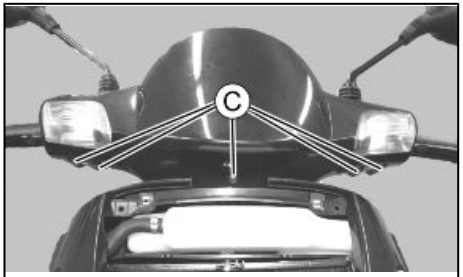
5. Unscrew both screws «**D**» and remove the front handlebar cover.

To replace bulbs take out the bulb holders «**E**» from their fittings by turning them anticlockwise.

Slide off the bulbs by pressing them slightly and turning them anticlockwise.

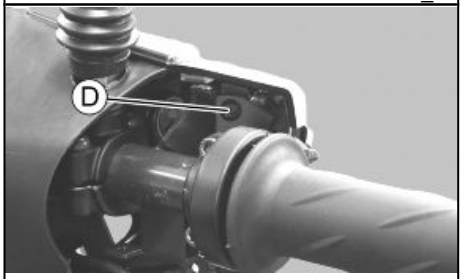
CAUTION

OPERATE VERY CAREFULLY TO AVOID DAMAGING THE PLASTIC PARTS.

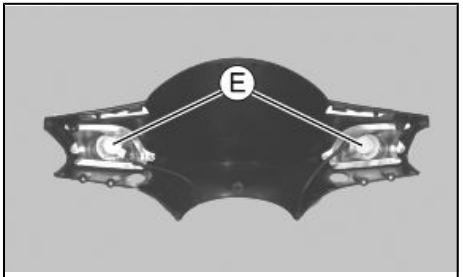


03_40

03_41

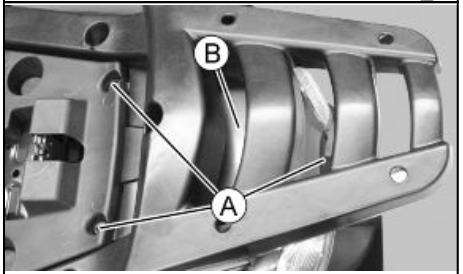


03_42



03_43


03_44



03_45

Rear optical unit (03_44, 03_45, 03_46, 03_47, 03_48)

The rear headlight assembly has two parts that can be removed separately. The operations described refer to one part but apply to both.
To access the bulbs:

1. Lift the saddle and undo the three fixing screws «**A**» of the fairing of the tail light «**B**».

2. Undo the screw «**C**» placed inside the rear wheel housing.

3. Unscrew the two screws «**D**».

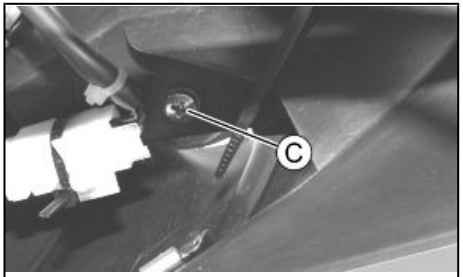
4. Take out the light «**E**».

To replace:

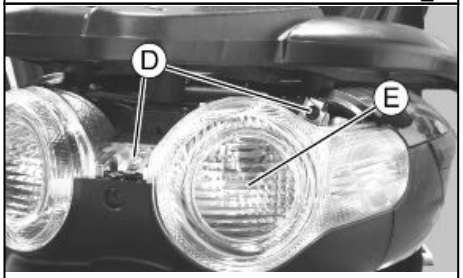
1. Take out the bulb holder «**F**» by turning it anticlockwise.

2. Press the bulb slightly and turn it anticlockwise.

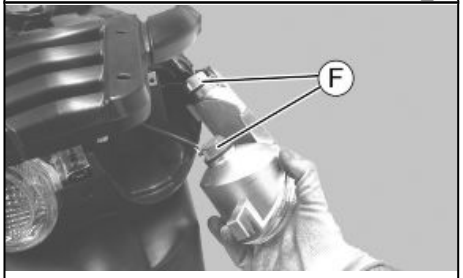
3. Take out the bulb from its fitting.



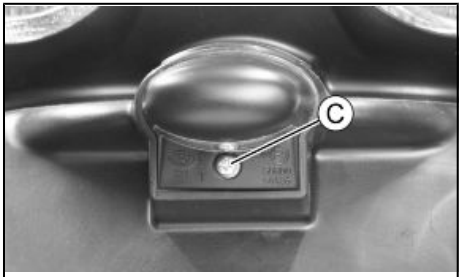
03_46



03_47



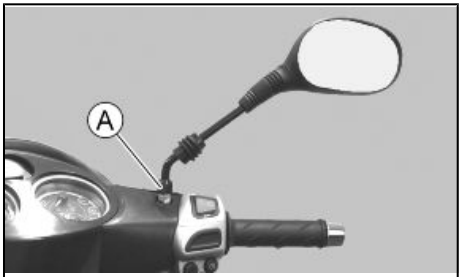
03_48



03_49

Number plate light (03_49)

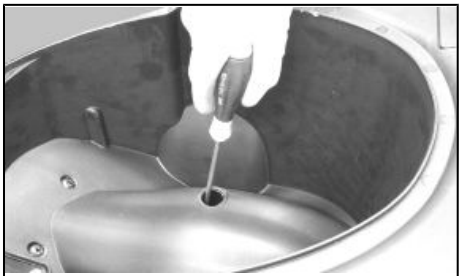
Remove the screw «**C**», then take out the bulb holder.



03_50

Rear-view mirrors (03_50)

To adjust mirrors, loosen the 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 to the desired position manually.


03_51

Idle adjustment (03_51)

Proceed as follows:

1. Rest the scooter on its centre stand and lift the saddle.

2. To adjust the idle speed, start the engine, then loose or tighten the screw until the recommended idle speed is obtained taking care the engine does not make the rear wheel move.

If it is difficult to adjust idle speed, take your vehicle to an **Authorised Service Centre or Dealer**.

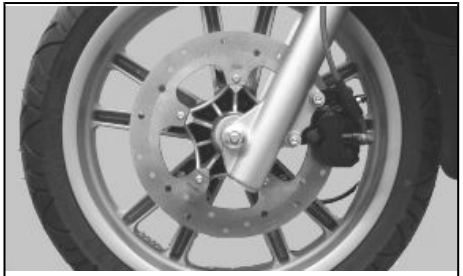
WARNING

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

Characteristic

Engine idle speed

1,650±100 rpm



03_52

Front and rear disc brake (03_52)

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

THE BRAKING ACTION 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 BRAKE SYSTEM DURING OPERATION, IT IS ADVISABLE TO HAVE THE BRAKE SYSTEM CHECKED BY A PIAGGIO DEALER OR AUTHORISED SERVICE CENTRE. 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 DURATION OF THE BRAKE PADS. IN ORDER TO AVOID THIS, WE RECOMMEND WASHING THE VEHICLE FREQUENTLY WHEN RIDING IN THESE ROAD CONDITIONS.

Puncture

The vehicle is equipped with Tubeless (without inner tube) tyres. In the event of a puncture, contrary to the situation with a tyre with inner tube, the tyre deflates more slowly, resulting in a greater steering safety. In the event of a puncture, it is admissible to make an emergency repair using an "inflate and repair" spray can. For a final repair, take your vehicle to an **Authorised Service Centre or Dealer.** The replacement of a tyre involves removing the wheel in question. Take your vehicle to an **Authorised Service Centre or Dealer for these operations.**

CAUTION

TO USE THE "INFLATE AND REPAIR" SPRAY 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_53

Periods of inactivity (03_53)

We recommend carrying out the following operations:

1. Clean the scooter 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). Operate the starter button 1-2 times for roughly 1 second to turn the engine over slowly, then insert the spark plug again;

3. Drain all the fuel from the scooter; spread antirust grease on the unpainted metal parts; keep the wheels lifted above the ground by resting the chassis on two wooden wedges;

4. As regards the battery, follow the instructions in the "Battery" section.

Recommended products

AGIP CITY HI TEC 4T

Oil to lubricate flexible transmissions (throttle control)
Oil for 4-stroke engines

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 abundantly with water, and dry with a shammy cloth. For the outside of the

engine, use petroleum, a brush and clean cloths. Petrol can damage paintwork. Remember that any polishing with silicone 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 THE FAN JET.**
- **DO NOT PLACE THE NOZZLE CLOSER THAN 60 CM.**
- **DO NOT USE WATER AT TEMPERATURES OVER 40ºC.**
- **DO NOT USE HIGH-PRESSURE WATER JETS.**
- **DO NOT STEAM WASH.**
- **DO NOT DIRECT THE JET AT: THE CARBURETTOR, THE ELECTRIC CABLES, THE SLOT DIFFUSERS IN THE TRANSMISSION COVER AND THE SCROLL COVER.**

CAUTION

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

CLEANING THE PAINTED OR PLASTIC SURFACES, IN ORDER NOT TO DAMAGE THE LUSTRE FINISH OR ALTER THE MECHANICAL PROPERTIES. USING SILICONE-BASED WAX CAN DAMAGE THE PAINTED SURFACES, DEPENDING ON THE VEHICLE COLOUR (SATIN COLOURS). FOR FURTHER INFORMATION ON THIS MATTER, CONTACT AN AUTHORISED SERVICE CENTRE .

DIFFICULT STARTING

No fuel in tank	Refuelling
Filters, carburettor jets dirty or clogged, fuel filter, fuel pipes clogged, fuel pump damaged	Contact an **Authorised Service Centre**
Battery flat	Recharge the battery.

IGNITION PROBLEM

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

LACK OF COMPRESSION

Spark plug loose. Loose cylinder head, worn piston retaining rings. Incorrect valve clearance	Screw the spark plug. Contact an **Authorised Service Centre**

HIGH CONSUMPTION AND LOW PERFORMANCE

Air filter blocked or dirty.	Clean with water and shampoo and impregnate with petrol and specific oil (section «Removing the air filter»)

INSUFFICIENT BRAKING

Greasy disc. Worn pads	Contact an **Authorised Service Centre**
Air in the front and rear brake circuits	Contact an **Authorised Service Centre**

INEFFICIENT SUSPENSIONS

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

IRREGULAR AUTOMATIC TRANSMISSION

Deteriorated variable speed rollers and/or driving belt and/or clutch	Contact an **Authorised Service Centre**

EXHAUST NOISE

Depression tube damaged/ disconnected or secondary valve damaged	Contact an **Authorised Service Centre**

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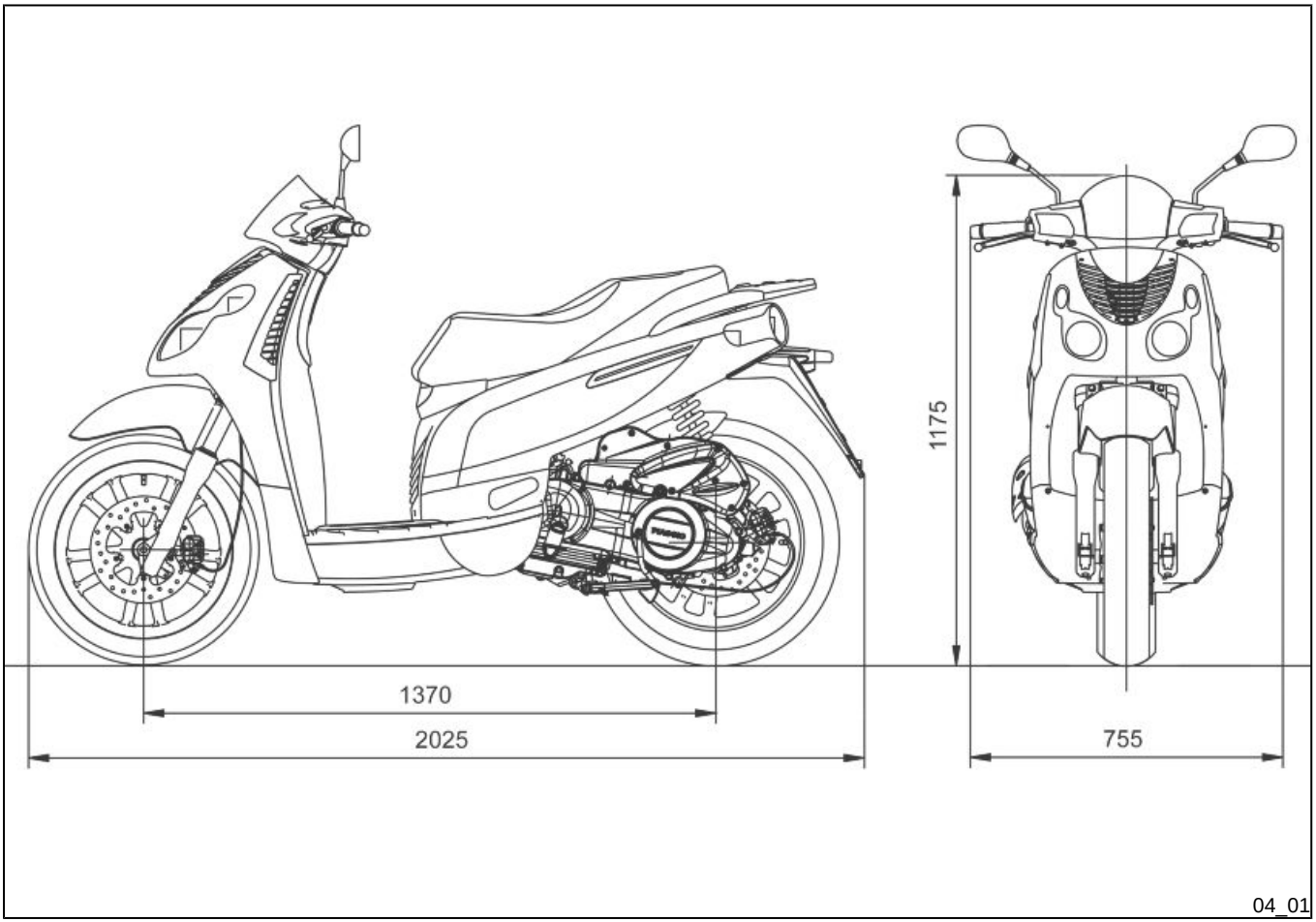
Chap. 04
Technical data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04_01

ENGINE SPECIFICATIONS 125

Type	Single-cylinder, 4-stroke
Cubic capacity	124 cm^3
Bore x stroke	57.0 x 48.6 mm
Compression ratio	12 ± 0.5: 1
Engine idle speed	1650 ± 100 rpm
Timing system	4 valves, single overhead camshaft, chain-driven.
Valve clearance	Inlet: 0.10 mm Outlet: 0.15 mm
Max. Power	11 kW at 9,750 rpm
MAX. torque	12 Nm at 8,000 rpm
Transmission	Automatic expandable pulley variator with torque server, V belt, dry self-ventilating automatic centrifugal clutch and transmission housing with forced air circulation.
Final reduction	Gear reduction unit in oil bath.
Lubrication	Engine lubrication with lobe pump (inside crankcase) controlled by a chain with double filter: mesh and paper.
Cooling	Forced coolant circulation system.
Start-up	Electric
Ignition	Capacitive discharge ignition, with variable advance and separate HV coil.

Ignition advance	10° at 2.000 rpm - 29° at 6.750 rpm
Spark plug	CHAMPION RG4HC
Alternative spark plug	NGK CR8EB
Fuel supply	KEIHIN CVEK 30 carburettor and electrical fuel pump.
Fuel	Unleaded petrol (95 RON)
Exhaust muffler	absorption-type exhaust muffler with catalytic converter.
Emission regulations	EURO 3

VEHICLE TECHNICAL DATA 125

Chassis	Tubular and sheet steel.
Front suspension	Hydraulic telescopic fork with Ø 35 mm stem
Rear suspension	Two double-acting shock absorbers, adjustable to 4 positions at preloading.
Front brake	Ø 260 disc brake with hydraulic control activated by handlebar right lever.
Rear brake	Ø 260 mm disc brake with hydraulic control activated by handlebar left lever.
Wheel rim type	Light alloy rims.
Front rim	16" x 3.00
Rear rim	16" x 3.00

Front tyre	Tubeless, 110/70 - 16" 52P
Rear tyre	130/70 - 16" 61P Tubeless
Front tyre pressure (with passenger)	2 bar (2 bar)
Rear tyre pressure (with passenger)	2.2 bar (2.3 bar)
Kerb weight	154 ± 5 kg
Maximum weight allowed	350 kg
Battery	Sealed, 12 V / 10 Ah

CAPACITY 125

Engine oil	1.10 l
Transmission oil	250 cm^3
Cooling system fluid	~ 2 l
Fuel tank (reserve)	~ 10 l (2 l)

ENGINE SPECIFICATIONS 200

Type	Single-cylinder, 4-stroke
Cubic capacity	198 cm^3
Bore x stroke	72 x 48.6 mm
Compression ratio	11 ± 0.5 : 1
Engine idle speed	1650 ± 100 rpm

Timing system	4 valves, single overhead camshaft, chain-driven.
Valve clearance	Inlet: 0.10 mm Outlet: 0.15 mm
MAX. power	14.5 kW at 9,000 rpm
MAX torque	16.5 Nm at 7.250 rpm
Transmission	Automatic expandable pulley variator with torque server, V belt, dry self-ventilating automatic centrifugal clutch and transmission housing with forced air circulation.
Final reduction	Gear reduction unit in oil bath.
Lubrication	Engine lubrication with lobe pump (inside crankcase) controlled by a chain with double filter: mesh and paper.
Cooling	Forced coolant circulation system.
Start-up	Electric
Ignition	Capacitive discharge ignition, with variable advance and separate HV coil.
Ignition advance	10° at 2,000 rpm - 26° at 6,750 rpm
Spark plug	CHAMPION RG6YC
Alternative spark plug	NGK CR8EB
Fuel supply	KEIHIN CVEK 30 carburettor and electrical fuel pump.
Fuel	Unleaded petrol (95 RON)
Exhaust muffler	absorption-type exhaust muffler with catalytic converter.

Emission regulations	EURO 3

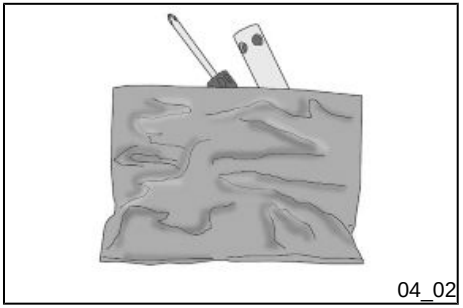
VEHICLE TECHNICAL DATA 200

Chassis	Tubular and sheet steel.
Front suspension	Hydraulic telescopic fork with Ø 35 mm stem
Rear suspension	Two double-acting shock absorbers, adjustable to 4 positions at preloading.
Front brake	Ø 260 disc brake with hydraulic control activated by handlebar right lever.
Rear brake	Ø 260 mm disc brake with hydraulic control activated by handlebar left lever.
Wheel rim type	Light alloy rims.
Front rim	16" x 3.00
Rear rim	16" x 3.00
Front tyre	Tubeless, 110/70 - 16" 52P
Rear tyre	130/70 - 16" 61P Tubeless
Front tyre pressure (with passenger)	2 bar (2 bar)
Rear tyre pressure (with passenger)	2.2 bar (2.3 bar)
Kerb weight	154 ± 5 kg
Maximum weight allowed	350 kg

Battery	SEALED 12V / 12Ah BATTERY

CAPACITY 200

Engine oil	1.10 l
Transmission oil	250 cm³
Cooling system fluid	~ 2 l
Fuel tank (reserve)	~ 10 l (2 l)



04_02

Kit equipment (04_02)

The tools are stored in the helmet compartment.
The kit includes:

1. One toolkit bag

2. One twin screwdriver

3. One box-spanner

4. One wrench for adjusting shock absorbers

5. One extractor for blade fuses

6. One flat wrench

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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, IN ORDER TO CHOOSE AND MOUNT THE ACCESSORIES CORRECTLY, TO CONTACT AN AUTHORISED DEALER OR SERVICE CENTRE. 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 SHOULD BE NOT-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 REDUCED FURTHER.

WARNING

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

MAINLY DUE TO THE PROXIMITY TO 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 AND AFFECT THE CORRECT FUNCTIONING OF THE VEHICLE AND HARM THE USER.

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Chap. 06
Programmed maintenance

Scheduled maintenance table

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

For this purpose, PIAGGIO offers a set of checks and maintenance services (for payment), which are included in the summary table shown 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.

All scheduled maintenance services must be carried out at the specified times, even if the stated mileage has not yet been reached. Carrying out scheduled services on time is necessary to ensure your warranty remains valid. For all other information concerning Warranty procedures and "Scheduled Maintenance", please refer to the "Warranty Booklet".

EVERY 2 YEARS
Coolant - change
Brake fluid - change

EVERY 3,000 KM
Engine oil - level check/ top-up

AFTER 1,000 KM
Engine oil - replacement
Hub oil - change
Engine oil - change

Idle speed (*) - adjustment
Throttle lever - adjustment
Steering - adjustment
Transmissions/Levers - Lubrication
Brake pads - check condition and wear
Brake fluid level - check
Safety locks - check
Electrical system and battery - check
Tyre pressure and wear - check
Vehicle and brake test - road test

(*) See instructions in «Idle speed adjustment» section

AFTER 6,000 KM

Engine oil - change
Hub oil level - check
Spark plug/ electrode gap - check
Air filter - clean
Oil filter -Replacement
Valve clearance - Check
Sliding blocks / variable speed rollers - check
Driving belt - checking
Coolant level - check

Brake pads - check condition and wear
Brake fluid level - check
Electrical system and battery - check
Tyre pressure and wear - check
Vehicle and brake test - road test

AT 12,000 KM AND AT 60,000 KM

Engine oil - replacement
Hub oil level - check
Spark plugs - replacement
Air filter - clean
Engine oil - change
Idle speed (*) - adjustment
Sliding block / variable speed rollers - change
Throttle lever - adjustment
Coolant level - check
Steering - adjustment
Brake pads - check condition and wear
Brake fluid level - check
Transmissions/Levers - Lubrication
Safety locks - check
Suspensions - check

Electrical system and battery - check
Headlight - adjustment
Tyre pressure and wear - check
Vehicle and brake test - road test
Driving belt - replacement

(*) See instructions in «Idle speed adjustment» section

AT 18,000 KM AND AT 54,000 KM

Engine oil - change
Hub oil level - check
Spark plug/ electrode gap - check
Air filter - clean
Oil filter -Replacement
Valve clearance - check
Sliding blocks / variable speed rollers - check
Coolant level - check
Radiator - external cleaning/ check
Brake pads - check condition and wear
Brake fluid level - check
Electrical system and battery - check
Tyre pressure and wear - check
Vehicle and brake test - road test

Driving belt - checking
Fuel filter - replacement
SAS filter - Cleaning

AT 24,000 KM AND AT 48,000 KM

Engine oil - replacement
Hub oil - change
Spark plugs - replacement
Air filter - clean
Engine oil - change
Idle speed (*) - adjustment
Sliding block / variable speed rollers - change
Throttle lever - adjustment
Coolant level - check
Steering - adjustment
Brake pads - check condition and wear
Brake fluid level - check
Transmissions/Levers - Lubrication
Safety locks - check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment

Tyre pressure and wear - check
Vehicle and brake test - road test
Driving Belt - replacement

(*) See instructions in «Idle speed adjustment» section

AT 30,000 KM, AT 42,000 KM AND AT 66,000 KM

Hub oil level - check
Spark plug/ electrode gap - check
Air filter - clean
Variable speed rollers - check or replacement
Driving belt - checking
Coolant level - check
Brake pads - check condition and wear
Brake fluid level - check
Electrical system and battery - check
Tyre pressure and wear - check
Vehicle and brake test - road test
Engine oil - replacement
Oil filter -Replacement

AFTER 36,000 KM

Engine oil - replacement
Hub oil level - check
Spark plugs - replacement
Air filter - clean
Engine oil - change
Valve clearance - Check
Idle speed (*) - adjustment
Sliding block / variable speed rollers - change
Throttle lever - adjustment
Driving belt - replacement
Coolant level - check
Radiator - external cleaning/ check
Steering - adjustment
Brake pads - check condition and wear
Brake fluid level - check
Transmissions/Levers - Lubrication
Safety locks - check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment
Tyre pressure and wear - check

Vehicle and brake test - road test
Fuel filter - replacement
SAS filter - Cleaning

(*) See instructions in «Idle speed adjustment» section

AFTER 72,000 KM

Engine oil - replacement
Hub oil - change
Spark plugs - replacement
Air filter - clean
Valve clearance - Check
Engine oil - change
Idle speed (*) - adjustment
Sliding block / variable speed rollers - change
Throttle lever - adjustment
Driving belt - replacement
Coolant level - check
Radiator - external cleaning/ check
Steering - adjustment
Brake pads - check condition and wear
Brake fluid level - check
Transmissions/Levers - Lubrication

Safety locks - check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment
Tyre pressure and wear - check
Vehicle and brake test - road test
Fuel filter - replacement
SAS filter - Cleaning

(*) See instructions in «Idle speed adjustment» section

RECOMMENDED PRODUCTS TABLE

Product	Description	Specifications
AGIP ROTRA 80W-90	Rear hub oil	SAE 80W/90 Oil that exceeds the requirements of API GL3 specifications
AGIP CITY HI TEC 4T	Oil to lubricate flexible transmissions (throttle control)	Oil for 4-stroke engines
AGIP FILTER OIL	Oil for air filter sponge	Mineral oil with specific additives for increased adhesiveness
AGIP GP 330	Grease for brake levers, throttle	White calcium complex soap-based spray grease with NLGI 2; ISO-L-XBCIB2
AGIP CITY HI TEC 4T	Engine oil	SAE 5W-40, API SL, ACEA A3, JASO MA Synthetic oil
AGIP BRAKE 4	Brake fluid	FMVSS DOT 4 Synthetic fluid

Product	Description	Specifications
SPECIAL AGIP PERMANENT fluid	coolant	Monoethylene glycol-based antifreeze fluid, CUNA NC 956-16

UNIT OF MEASUREMENT - CONVERSION - ENGLISH SYSTEM AND INTERNATIONAL SYSTEM (IS).

1 Inch (in)	25.4 Millimetres (mm)
1 Foot (ft)	0.305 Meter (m)
1 Mile (mi)	1.609 Kilometre (km)
1 US Gallon (US gal)	3.785 Litre (l)
1 Pound (lb)	0.454 Kilogram (kg)
1 Cubic inch (in^3)	16.4 Cubic centimetres (cm^3)
1 Foot pound (ft lb)	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)

TABLE OF CONTENTS

The descriptions and illustrations given in this publication are not binding. While the basic features 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 accessory supplies, which it considers necessary to improve the product or which are required for manufacturing or construction reasons.

Not all versions shown in this publication are available in all Countries. The availability of individual versions should be confirmed with the official Piaggio sales network.

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