GILERA WOULD LIKE TO THANK YOU

for choosing one of its products. We have prepared this booklet 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.

Nexus 500

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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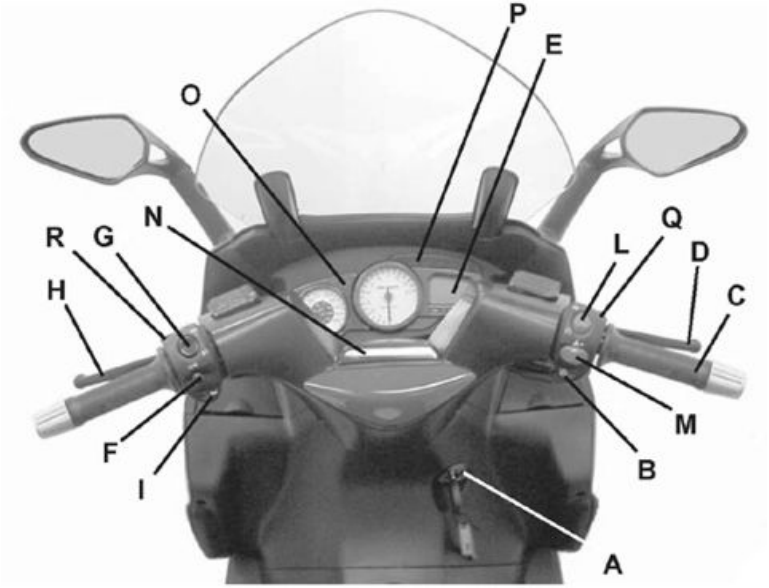
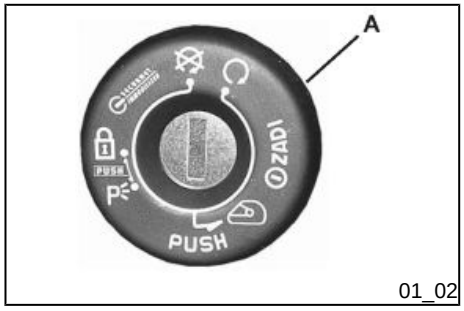
Nexus 500

GILERA®

Chap. 01
Vehicle



01_01



01_02

Dashboard (01_02)

A = Ignition key-switch
B = Starter button

C = Throttle control

D = Front brake lever

E = Digital instrument panel

F = Turn signal switch

G = Light switch

H = Combined braking system control (front and rear)

I = Horn button

L = Emergency cut-off switch

M = Emergency turn indicator activation switch (4 arrows)

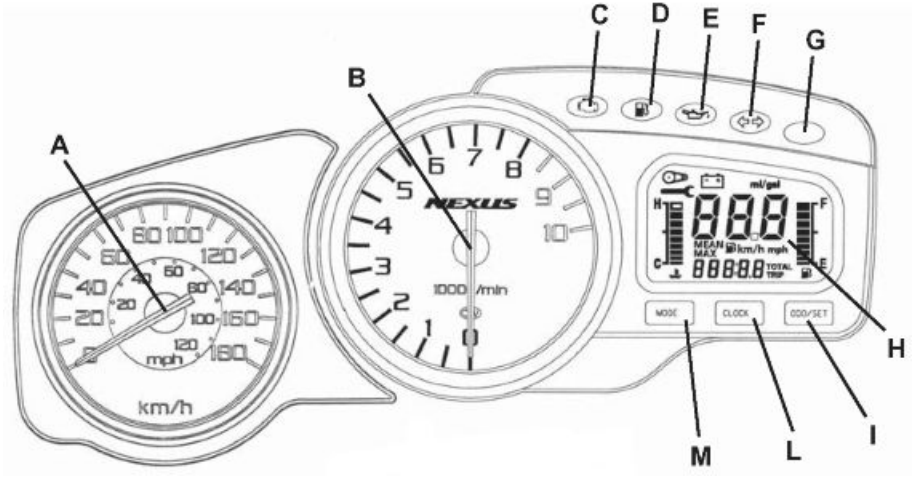
N = Warning light unit

O = Analogue instrument panel

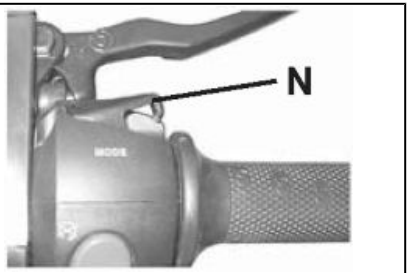
P = Warning light unit on digital instrument panel

Q = Remote «**Mode**» switch

R = Passing



01_03



01_04

Instruments (01_04)

A = Twin scale speedometer (km/h and mph)
B = Rpm indicator

C = Engine control warning light and injection system failure warning light *

D = Low fuel warning light

M = Low oil pressure warning light

F = Turn indicator warning light

G = Antitheft device LED

H = LCD Display

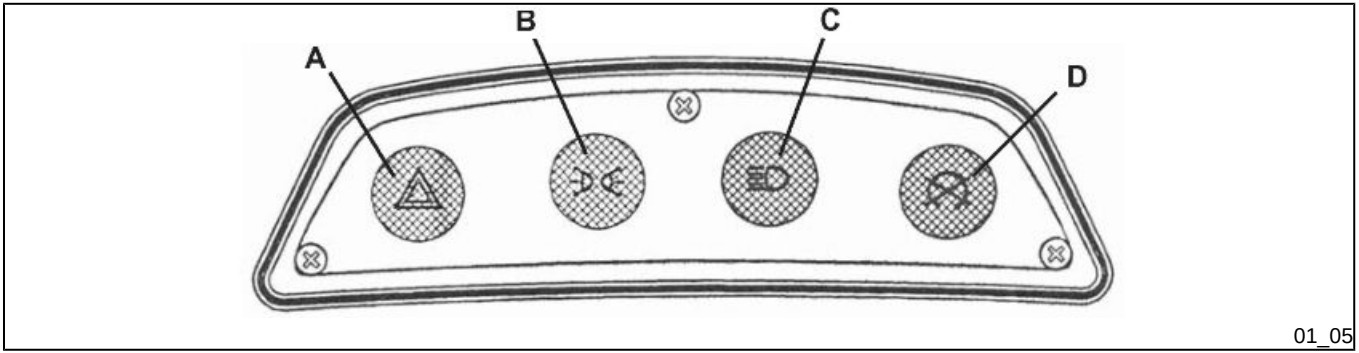
I = «**Odo/Set**» button

L = «**Clock**» button

M = «**Mode**» button

Q = Remote «**Mode**» button

* See Engine stop section

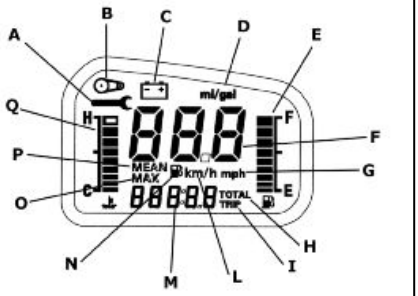


Indicator unir (01_05)

A = Emergency flashing light indicator (4 direction indicators)
B = Light indicatorp

C = Upper beam indicator

D = Emergency stop light/side stand lowered



01_06

Clock (01_06)

Pressing the button«**CLOCK**» less than 1 second displays the following sequence:

- TIME
- DATE
- TOTAL/PARTIAL

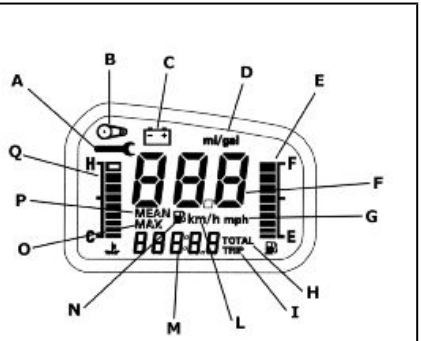
To set the clock push and hold the «**CLOCK**» button for longer than 3 seconds.

The numbers showing the hours will begin flashing.

Set the hours with the «**ODO/SET**» button. Push the «**CLOCK**» button again and the minutes numbers start flashing.

Set the minutes with the «**ODO/SET**» button. Press the «**CLOCK**» button again to start the clock moving normally.

During the reset process, not pressing any buttons longer than 8 seconds ends the process automatically and the display shows the modified time.



01_07

Digital lcd display (01_07)

A = «**SERVICE**» maintenance icon

B = «**BELT**» maintenance icon

C = Battery Icon

D = Miles/gallons icon

E = Fuel gauge

F = 3-digit display

G = Miles per hour icon

H = Total odometer indicator

I = Partial odometer indicator

L = Km/h - Km/l indicator

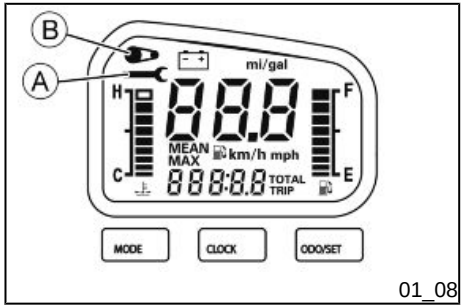
M = 5-digit display

N = Fuel consumption and autonomy gauge

O = Maximum speed indicator

P = Mean speed/consumption

Q = Water temperature gauge



01_08

Maintenance icons (01_08)

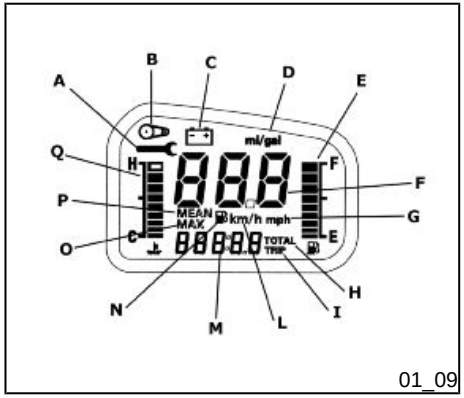
The icons signal the user that scheduled maintenance operations should be carried out. A flashing «**SERVICE**» icon signals the need to carry out the scheduled maintenance service. A flashing «**BELT**» icon signals the driving belt needs replacing. In any case, vehicle maintenance must be carried out at the kilometre service intervals recommended in this booklet.

WARNING

REFER TO THE «SCHEDULED MAINTENANCE TABLE» FOR FURTHER MAINTENANCE OPERATIONS

Setting the total and trip odometers

Pressing the «**ODO/SET**» button, the display shifts from total to partial odometer. Hold «**ODO/SET**» button down longer than 3 seconds to reset the partial odometer, mean speed, mean consumption and maximum speed gauges.



01_09

Setting the date function (01_09)

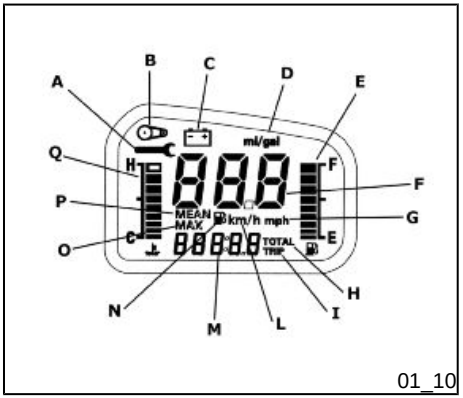
Press the «**CLOCK**» button to set the «**DATE**» function. Press «**CLOCK**» for more than 3 seconds; the day digits will start to flash. Set the day using the «**ODO/SET**» button. Press the «**CLOCK**» button again and the month digits will start to flash. Set the month using the «**ODO/SET**» button. Press the «**CLOCK**» button again and the year digits will start to flash. Set the year using the «**ODO/SET**» button.

WARNING

TO KEEP TRACK OF THE JOBS FOR «SERVICE», THE CLOCK MUST BE RESET EACH TIME THE BATTERY IS DISCONNECTED FROM THE VEHICLE SYSTEM.

CAUTION

IT IS STRONGLY ADVISED NOT TO USE THE FUNCTIONS OF THE DIGITAL DISPLAY PANEL WHILE THE VEHICLE IS MOVING.



01_10

MODE button (01_10)

Pushing the "**MODE**" button for less than a second displays the following function sequence:

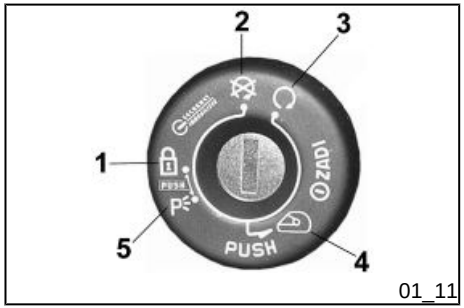
1. **MEAN SPEED** - the word «**MEAN**» and **Km/h** or **mph** is displayed. The value is reset by resetting the trip odometer.
2. **MAXIMUM** SPEED - the word «**MAX**» and **Km/h** or **mph** are displayed. The value is reset by resetting the trip odometer.
3. **MEAN CONSUMPTION** - The fuel icon, the word «**MEAN**» and the km/l or m/gal icon are displayed. The value is reset by resetting the trip odometer.
4. **INSTANT CONSUMPTION** - The fuel icon and km/l or m/gal are displayed
5. **AUTONOMY** - The fuel icon is displayed. If autonomy is reduced below 40 km, this icon is automatically displayed and flashes for 60 seconds. If the low fuel warning light remains continuously lit, some dashes are shown instead of the autonomy value.

6. **BATTERY VOLTAGE** - The battery icon is displayed. Should voltage be abnormal, the icon is displayed and flashes for 60 seconds.

Pushing the «**MODE**» button longer than 3 seconds returns to function «**1**» **MEAN SPEED**

N.B.

MEAN SPEED IS CALCULATED ONLY WITH THE KEY SET TO «ON» AND WITH THE ENGINE ON. TO SHIFT FROM KM TO MILES PUSH THE «MODE» AND «CLOCK» BUTTONS SIMULTANEOUSLY LONGER THAN 3 SECONDS WHEN INSERTING AND SETTING THE KEY TO «ON» IN THE KEY SWITCH. THE WORD «SET» WILL BE DISPLAYED.



01_11

Key switch (01_11)

1. «**LOCK**» = Ignition disabled, extractable key, mechanical anti-theft device enabled.
2. «**OFF**» = Ignition disabled, extractable key, mechanical anti-theft device disabled.
3. «**ON**» = Ready to start, non-extractable key, mechanical anti-theft device disabled.
4. «**SADLE OPENING**» = Saddle opening position, this position is reached pressing the key from the «**OFF**» position and turning the key in counter clockwise direction.
5. «**PARKING LIGHT**» = Parking light position, this position is reached pressing the key from the «**LOCK**» position and turning the key in counter clockwise direction. Antitheft alarm on and removable key.

WARNING

KEEPING THE KEY SWITCH TO «PARKING LIGHT» FOR A LONG TIME CAN DISCHARGE THE BATTERY.

Locking the steering wheel

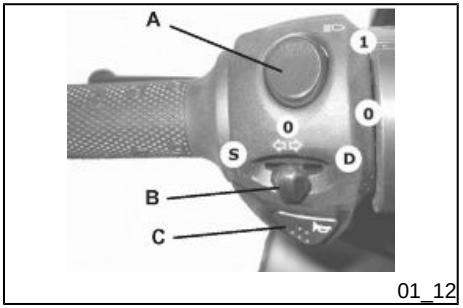
Turn the handlebar to the left as far as it will go, turn the key to position «**LOCK**» and remove the key.

Releasing the steering wheel

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

CAUTION

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



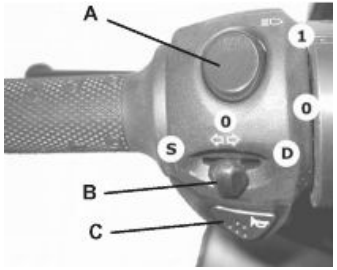
01_12

Switch direction indicators (01_12)

Lever towards "**S**" = Left turn indicator is switched on;

Lever towards "**D**" = Right turn indicator is switched on;

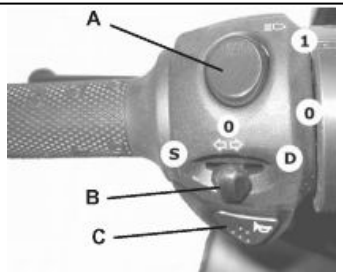
The lever returns automatically to position "**0**" and the turn indicator "**B**" remains on; to switch off, push the lever again.



01_13

Horn button (01_13)

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

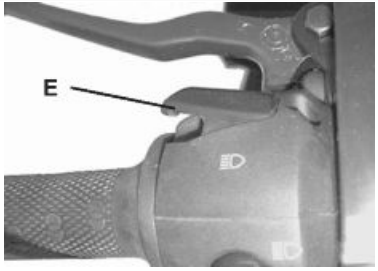


01_14

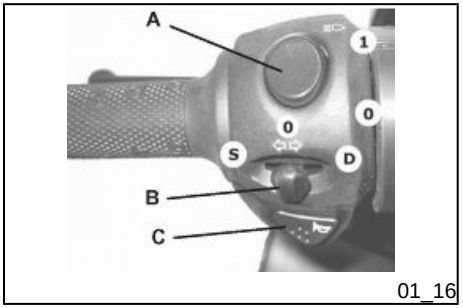
Light switch (01_14, 01_15)

0 = Dipped beam
1 = Upper beam

E = Passing (flashing)



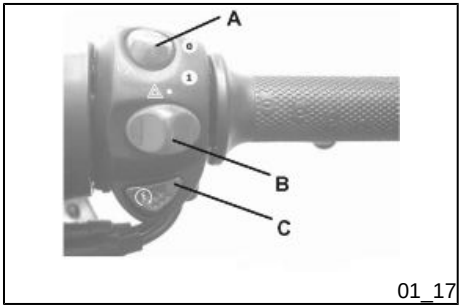
01_15



01_16

Emergency flashing light button (01_16)

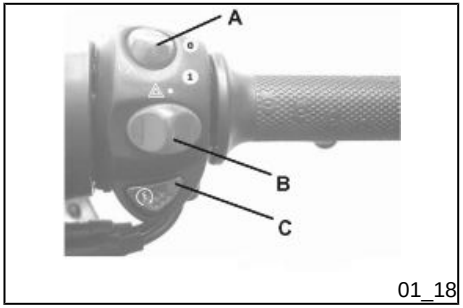
It starts the 4 direction indicators at the same time. The control can only be enabled with key «**C**» set to «**ON**», but once it has been enabled it remains on with key set to «**OFF**»,«**LOCK**», and «**PARKING LIGHT**» as well. This function can only be disabled with key switch set to «**ON**».



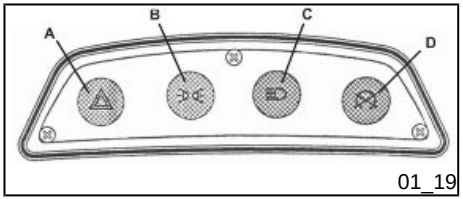
01_17

Start-up button (01_17)

Start-up button «**C**»



01_18



01_19

Engine stop button (01_18, 01_19)

0 = «**OFF**»

1 = «**ON**»

Activating the emergency cut-off switch causes the warning light «**C**» to turn on.

Warning light «**C**» is the light that signals the injection system check and that lights up for 5 seconds when:

- The key switch goes from «**OFF**» to «**ON**» ;

- The side stand shifts from a low to a high position;

- The emergency cut-off switch shifts from «**OFF**» to «**ON**».

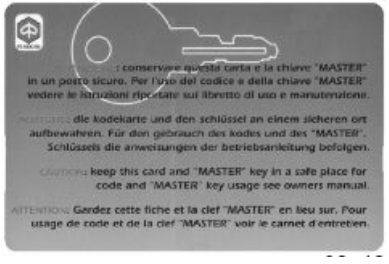
If the warning light remains fixedly on after the check period or lights up under normal use conditions, take your vehicle to an **Authorised Piaggio- Gilera Service Centre** to solve the problem.

The immobilizer system

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

01_20

01_21



01_22

Keys (01_20, 01_21, 01_22)

Two types of key are supplied with the scooter. The red-handgrip key «**A**» is the «**MASTER**» key. Only a single copy of this key is supplied, which is necessary to program the codes for 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 black key «**B**» (single copy supplied) is used for normal operations such as:

- engine start-up

- unlocking the fuel tank cover

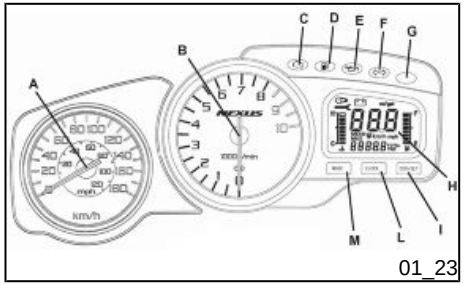
Together with the two keys, you will be given a **CODE CARD** bearing the mechanical code of the keys.

WARNING

LOSING THE RED KEY PREVENTS ANY REPAIRS OF THE 'PIAGGIO IMMOBILIZER' SYSTEM AND THE ENGINE CONTROL UNIT.

WARNING

KEEP THE 'CODE CARD' AND THE RED HANDGRIP KEY IN A SAFE PLACE (NOT ON YOUR VEHICLE).



01_23

Immobilizerdevice enabled indicator led (01_23)

Activation of the **«PIAGGIO IMMOBILIZER»** system is signalled by a flashing «**G**» warning light. In order to reduce battery discharge, the indicator LED turns off automatically after 48 hours of uninterrupted functioning. Should the signal led system break down in its flashing function, give information about the type of problem to an **Authorised Piaggio-Gilera Service Centre**.

Operation

Any time the starter key is pulled out from the «**OFF**», or «**LOCK**», or «**PARKING LIGHT**» position, the safety system enables the engine lock. Turning the key to «**ON**», with emergency stop switch set to «**ON**» and side stand raised, the engine lock is disabled only if the safety system recognises the code transmitted by the key. If the code is not recognised, turn the key to «**OFF**» and then to «**ON**» again; if the lock cannot be disabled, try with the other key supplied (red-coloured). If the engine cannot be started, contact an **Authorised Piaggio-Gilera Service Centre**, which is provided with the electronic equipment required to detect and fix the system. The immobilizer also starts when the motor is stopped by the emergency stop switch or when the vehicle is rested on the side stand. This also applies when the key is set to «**ON**». When additional keys are required, please note that storage (up to 7 keys max.) must be done on all keys, both new ones and existing ones. Contact an **Authorised Piaggio-Gilera Service Centre**, bringing the red-handgrip key and all black keys you have. The codes of keys not submitted for the new storage 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 BY THE SYSTEM CONTROL UNIT.

VIOLENT SHOCKS MAY AFFECT THE ELECTRONIC COMPONENTS OF THE KEY.

IF OWNERSHIP OF THE VEHICLE IS TRANSFERRED, THE RED-HANDGRIP KEY (AS WELL AS THE OTHER KEYS) AND THE "CODE CARD" MUST ALSO BE TRANSFERRED TO THE NEW OWNER.

Programming the immobilizer system

The procedure for programming the «**PIAGGIO IMMOBILIZER**» system and/or for storing other key codes is described below.

Procedure start - red key

Make sure that the emergency cut-off switch is set to «**ON**» and the side stand is up. Insert the red-handgrip key into the key switch (in «**OFF**» position) and turn it to **«ON**». After 1-3 seconds, turn the key to «**OFF**» again and pull it out.

Intermediate step - black key

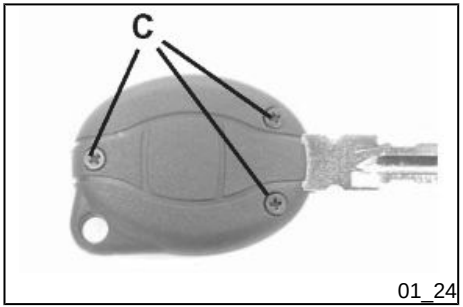
After pulling out the red key, insert the black key within 10 seconds and promptly turn it to "**ON**". After 1-3 seconds, turn the key to "**OFF**" again and pull it out. In this way, a maximum of 7 black keys can be programmed by repeating the above procedure keeping the indicated times.

Proper programming check

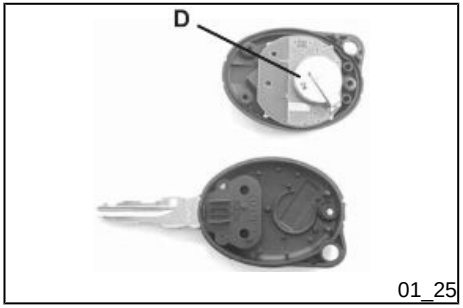
Insert the red key disabling the transponder (i.e., tilt the key cap by 90°) and turn the key to "**ON**". Perform the engine start-up operation. Ensure that the engine does not start. Insert the black key and repeat the start-up operation. Check that engine starts.

WARNING

SHOULD THE ENGINE START WITH THE RED KEY (WITH TRANSPONDER OFF), OR IN THE EVENT OF WRONG OPERATION DURING PROGRAMMING, REPEAT THE PROCEDURE FROM THE BEGINNING.



01_24



01_25

Saddle opening remote control (01_24, 01_25)

The vehicle is fitted with a key operated via remote control to open the saddle. This remote control is supplied together with the «**MASTER**» key and it has been programmed to control the opening device control unit at the manufacturing stage. A maximum of 7 keys operated by remote control can be programmed (see «remote control programming» section). The remote control for the black key is powered by inner batteries that get discharged after extended used; If the green LED on the handgrip turns on when the button is pressed, the remote control is working properly.
You may need to replace the batteries inside the key if the remote control fails or if its range of operation is reduced.

To replace the batteries remove the three screws «**C**» at the back of the handgrip and decouple the two half-shells.

Replace the two «**D**» batteries by new **CR1616** type ones, reassemble the handgrip and retighten the three screws «**C**».

To open the saddle without the remote control, follow the procedure described in the «**Saddle**» or «**Opening saddle with remote control**» section

Remote control programming

Follow these steps to program the remote controls:

1. Insert the remote control key to be programmed in the steering lock key block.

2. Turn the key to «**ON**», press the button on the remote control, release the button, turn the key back to «**OFF**» from the «**ON**» position, all within 4 seconds.

3 Wait 1 to 8 seconds.

4. Repeat steps 2 and 3 for 4 times without removing the key.

The control unit confirms the programming has been successfully executed by opening the saddle.

WARNING

TO STORE THE OTHER REMOTE CONTROLS TO MEMORY, (MAXIMUM 8), YOU NEED TO REPEAT THE WHOLE PROCEDURE AGAIN. FAILURE TO CARRY OUT THESE OPERATIONS WITHIN THE INDICATED TIMES WILL RESULT IN THE AUTOMATIC CANCELLATION OF THE PROCESS FOR PROGRAMMING THE REMOTE-CONTROLLED KEYS.

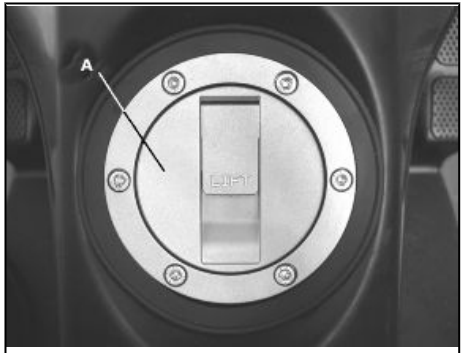
WARNING

AVOID PRESSING THE REMOTE CONTROL BUTTON MORE THAN ONCE WHEN FAR AWAY FROM THE SCOOTER. THE SYNCHRONISM BETWEEN THE REMOTE CONTROL AND THE RECEIVER CAN BE IMPAIRED. SHOULD THIS BE THE CASE, REPEAT THE PROGRAMMING PROCEDURE. DO NOT KEEP THE REMOTE CONTROL IN PLACES WITH TEMPERATURES EXCEEDING 60° C THE BATTERY WILL RUN DOWN TOO QUICKLY.

WARNING

TO AVOID BATTERY DISCHARGE, THE SADDLE OPENING REMOTE CONTROL RADIO RECEIVER DEACTIVATES 7 DAYS AFTER THE LAST TIME THE VEHICLE WAS SHUT OFF.

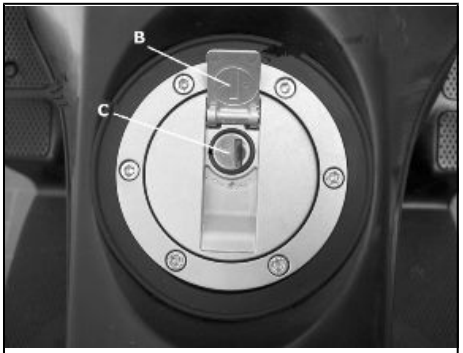
JUST TURN THE KEY TO «ON» TO REACTIVATE THE RECEIVER.



01_26

Accessing the fuel tank (01_26, 01_27)

To remove the fuel tank cover «**A**» lift tab «**B**» and insert the key in lock «**C**».



01_27

01_28

Power supply socket (01_28)

There is a plug socket "**D**" inside the helmet compartment.

The plug socket may be used for external consumers (mobile phone, inspection light, etc.).

CAUTION

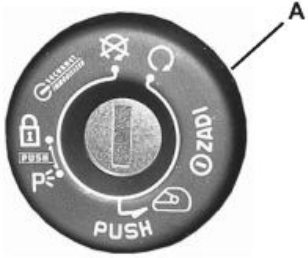
PROLONGED USE OF THE PLUG SOCKET MAY RESULT IN PARTIAL DISCHARGE OF THE BATTERY

Electric characteristic

Plug socket

12 V - 180 W MAX

Maximum power



01_29

01_30

The saddle (01_29, 01_30)

To lift the saddle and get access to the helmet compartment, insert the key in the key switch «**A**». With the key set to «**OFF**», push it and turn it counterclockwise to the «**SADDLE OPENING**» position.

Opening the saddle to access the helmet compartment by remote control

When the key is in «**LOCK**» or «**OFF**» position you can open the saddle using the remote control. The saddle cannot be opened only when the key is set to "ON".

CAUTION

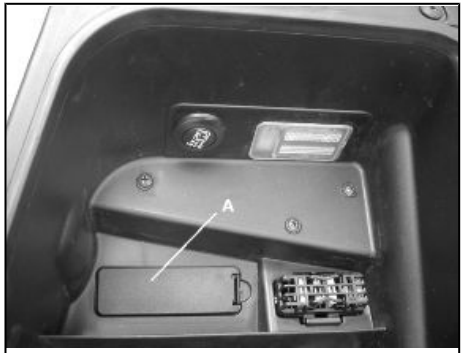
OBJECTS INAPPROPRIATELY PLACED INSIDE THE HELMET COMPARTMENT MAY DEFORM THE SADDLE AND PREVENT THE COURTESY LIGHT FROM TURNING OFF, WHICH MAY RESULT IN BATTERY DISCHARGE.

WARNING

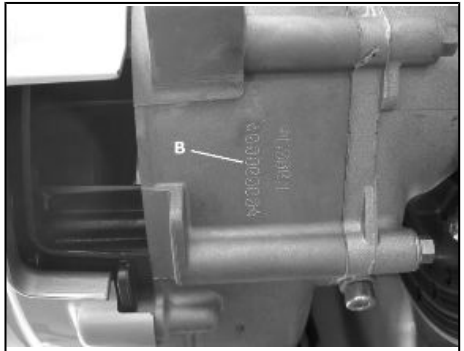
THE REMOTE CONTROL OPERATES WITHIN A DISTANCE OF ABOUT 3/5 METRES WITH FULLY CHARGED BATTERIES. WHEN YOU ARE NEAR THE SCOOTER, HANDLE THE REMOTE CONTROL CAREFULLY SO AS TO AVOID UNINTENTIONAL OPENING OF THE SADDLE. REFER TO THE «OPENING THE SADDLE WITH REMOTE CONTROL» SECTION TO REPLACE BATTERIES.

N.B.

PAY SPECIAL ATTENTION WHEN PLACING OBJECTS ON THE SADDLE AS THE AUTOMATIC OPENING OF THE SADDLE CAN CAUSE THEM TO FALL.



01_31



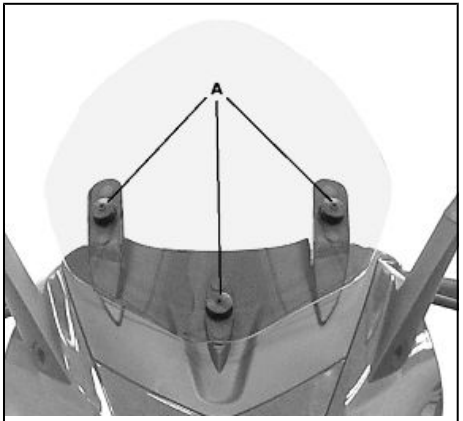
01_32

Identification (01_31, 01_32)

The identification registration numbers consist of a prefix stamped on the chassis and engine "**B**", followed by a number. These numbers must always be indicated on spare parts requests. To read the chassis number, remove the relevant port "**A**" in the helmet compartment. We recommend checking that the chassis registration number stamped on the scooter corresponds with that on the scooter's documents.

CAUTION

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



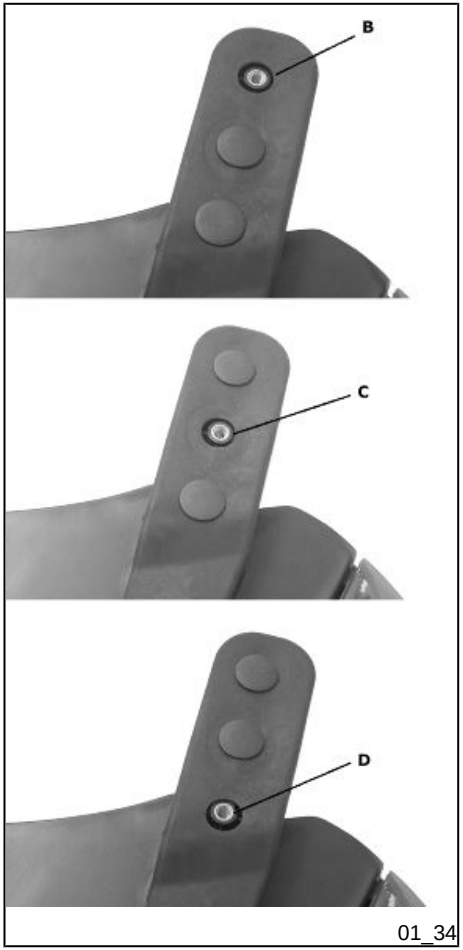
01_33

Adjusting the windscreen (01_33, 01_34)

The windshield can be adjusted to 3 positions «**B**», «**C**» and «**D**» according to the rider's needs. Unscrew the 3 screws «**A**», remove the windshield upper part and set it in the desired position. Tighten the 3 fixing screws again.

WARNING

CARRY OUT THIS OPERATION WITH EXTREME CARE SO AS NOT TO SCRATCH THE WINDSHIELD. PREVENT WINDSHIELD DETACHMENT WHILE RIDING BY TIGHTENING THE FIXING SCREWS WELL.



01_34

1 Vehicle

Nexus 500

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Chap. 02
Use

Checks

Before using the scooter for the first time check:

1. That the fuel tank is full.

2. Front brake and combined system fluid level.

3. That the tyres are properly inflated.

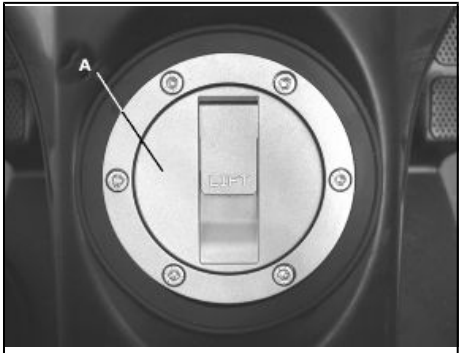
4. The correct functioning of the tail lights, the headlight, the turn indicators and the stop light.

5. The correct functioning of the front brakes and the combined system.

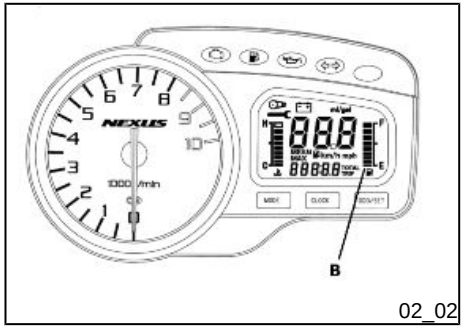
6. The oil level in the gearcase.

7. The engine oil level.

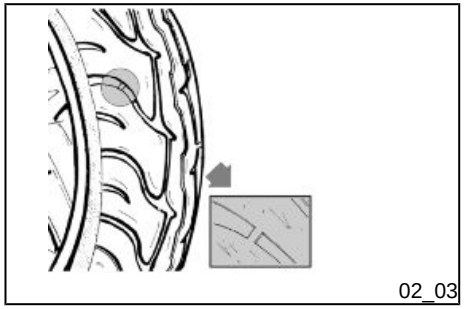
8. The coolant level.



02_01



02_02



02_03

Tyre pressure (02_03)

Check periodically (about every 500 km) the pressure and wear of the tyres.

The tyres are equipped with wear indicators, according to which the tyres should be changed before these indicators come to the surface of the tread.

Check also that the tyres do not have tears on their sides or an irregular pattern of wear on the tread; if this occurs, go to an authorised workshop or at least 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

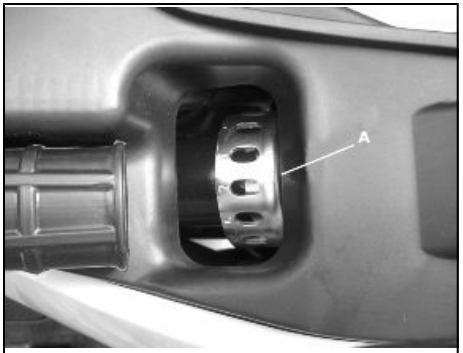
2.1 bar

Rear tyre pressure

2.2 bar with driver only

Rear tyre pressure

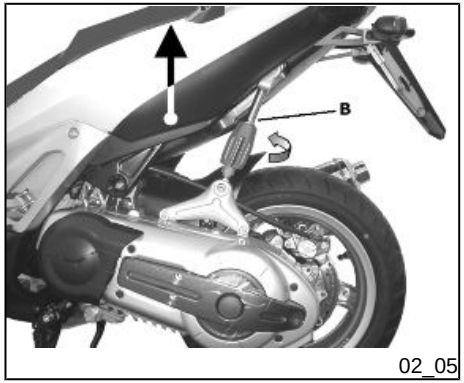
2.3 bar with passenger.



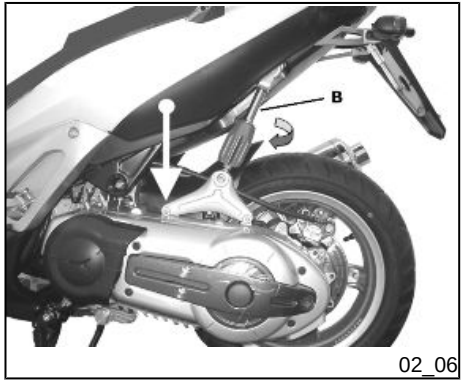
02_04

Shock absorbers adjustment (02_04)

Spring preloading can be adjusted to 7 positions with the supporting ring nut «**A**» with cams. It is necessary to lift the saddle for this adjustment. The positions can be changed using the specific spanner supplied together with the vehicle. The set adjustment can be identified by the numbers (from 1 to 7) indicated on the ring nut. The higher values correspond to the higher preloading; consequently, adjust the preloading according to the vehicle weight in running order (rider only - rider and passenger - rider, passenger and luggage).



02_05



02_06

Alignment adjustment (02_05, 02_06)

The vehicle is fitted with a special strut «**B**» connecting the engine and the chassis that allows changing the running angles in 15 positions. This can be done by operating the ring nut on the lower part of the strut. Rotating the ring nut modifies the rear suspension height. Follow the adjustment procedure shown in the figure. This adjustment affects the road behaviour of the vehicle. A low position is recommended to improve vehicle stability at high speeds. A high position is recommended to improve manoeuvrability at low speeds (for instance, on city streets).

USING THE VEHICLE WITH A SPRING PRELOADING UNSUITABLE FOR THE WEIGHT OF THE RIDER OR ANY PASSENGER CAN REDUCE RUNNING COMFORT AND DRIVING PRECISION.

ADJUST SHOCK ABSORBERS AND POSITION WITH THE VEHICLE RESTING ON THE CENTRE STAND. THE USE OF A GLOVE IS ADVISED TO AVOID RISK OF ABRASION DURING THE OPERATION.

Anti-overturning sensor

The vehicle is equipped with a special safety device coming from high-performance cars and motorbikes, with a vehicle tilting sensor that stops the engine and the fuel pump in case of falls.

WARNING

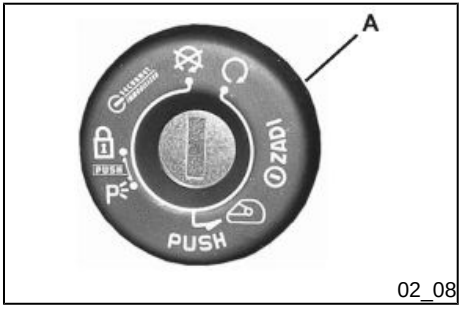
THIS SYSTEM ACTIVATES WITH LATERAL TILTING OVER 65°.

02_07

Running in (02_07)

WARNING

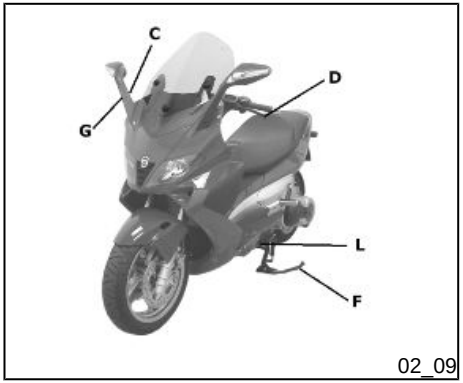
DURING THE FIRST 1000 KM DO NOT RIDE THE VEHICLE OVER 80% OF ITS MAXIMUM SPEED. AVOID TWISTING THE THROTTLE GRIP FULLY OR KEEPING A CONSTANT SPEED ALONG LONG SECTIONS OF ROAD. AFTER THE FIRST 1000 KM, GRADUALLY INCREASE SPEED UNTIL REACHING THE MAXIMUM PERFORMANCE.



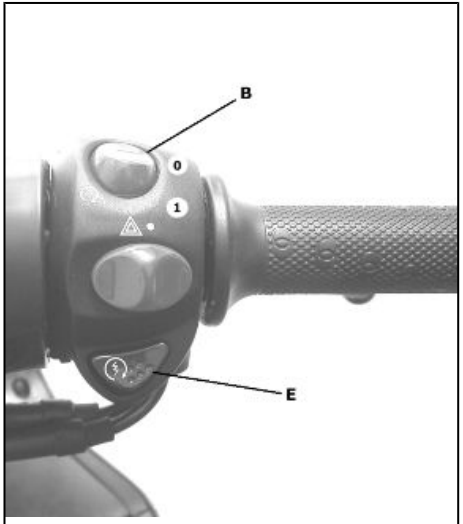
02_08

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

The vehicle is fitted with an ignition disabling system controlled by the side stand and the engine cut-off switch. The engine cannot start if the side stand is down or if the emergency cut-off switch is set to **«OFF»**. If the engine is on, it turns off when the side stand is lowered or the emergency cut-off switch is turned to **«OFF»**. The appropriate warning light on the digital instrument panel **«D»** signals this situation. 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. In order to start the engine and before pressing the starter button **«E»**, it is necessary to pull and hold pulled the front brake lever **«G»** or the combined brake lever **«D»** to actuate the safety switches. The fuel supply system can control ignition based on the engine condition (hot/cold) or the ambient temperature and pressure.



02_09



02_10

1. Put the scooter on the centre stand **"F"**, making sure the rear wheel is raised from the ground.

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

3. Insert the key into the ignition switch **"A"** and turn to position **"ON"**.

4. Make sure that switch **«B» «RUN OFF»** is set to **«RUN» position and that** the side stand **«L»** is raised.

5. Pull either the front **«G»** or the combined brake lever **«D»** while pressing the starter button **«E»**

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.

NEITHER PUSH THE START BUTTON WHEN THE TANK IS EMPTY NOR TURN THE KEY SWITCH TO «ON» TO AVOID DAMAGING THE INJECTION SYSTEM.

CAUTION

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

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.

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 EXCESSIVE REVOLUTIONS, THE REVOLUTION LIMITER WILL BE ACTIVATED IF THE ENGINE SPEED EXCEEDS THE ESTABLISHED THRESHOLD.

WARNING

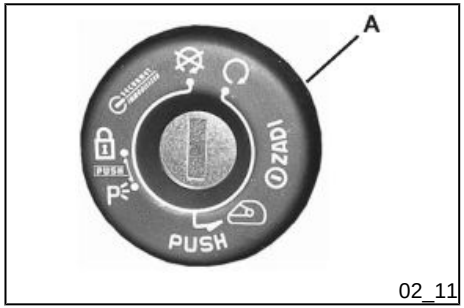
AFTER A LONG DISTANCE COVERED AT THE MAXIMUM SPEED, DO NOT STOP THE ENGINE IMMEDIATELY, BUT LET IT RUN AT IDLE FOR A FEW SECONDS.

WARNING

TAMPERING MAY CAUSE SERIOUS ENGINE MALFUNCTION.

Difficult start up

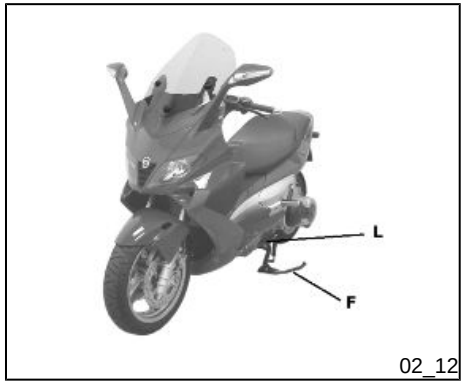
In the rare case of flooding the engine, to facilitate start-up, it is possible to try to put the scooter into action with the gas hand grip partially or completely open. It is however necessary, once the engine is started, to take your vehicle to an **Authorised Piaggio-Gilera Service Centre** to determine the causes and to restore proper functioning of your vehicle.



02_11

Stopping the engine (02_11)

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

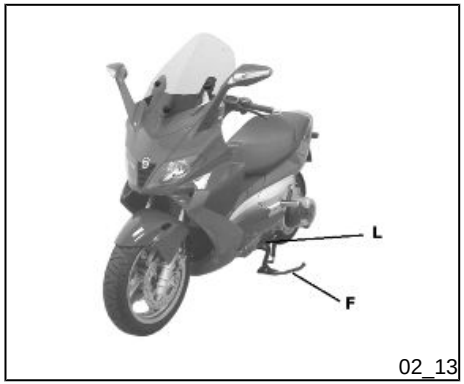


02_12

Stand (02_12)

CENTRE STAND

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



02_13

Stand (02_13)

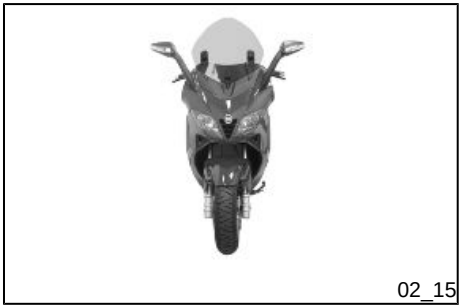
SIDE

Push with your foot on the stand's prong **«L»** until it releases into position, while lowering the vehicle onto the stand.

WARNING

THE SIDE STAND CAUSES THE ENGINE TO CUT OUT EVERY TIME THAT IT IS LOWERED; THIS CONDITION IS INDICATED BY THE RESPECTIVE WARNING LIGHT ON THE INSTRUMENT PANEL.

02_14



02_15

Automatic transmission (02_14, 02_15)

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 knowledge 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 ride with care.

3. After riding 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 riding over roads affected by sand, mud, snow mixed with salt, etc. We advise you to frequently clean the brake disc with a mild detergent to prevent the accumulation of abrasive elements inside the eyelets leading to premature wear on the brake pads.

CAUTION

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

CAUTION

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 RIDE THE SCOOTER WITH ADDED ACCESSORIES FASTER THAN 130 km/h. WITHOUT THESE ACCESSORIES THE VEHICLE MAY BE DRIVEN AT A HIGHER SPEED WITHIN THE LEGAL LIMITS. IF THERE SHOULD BE NON-PIAGGO 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.

CAUTION

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

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.

Nexus 500

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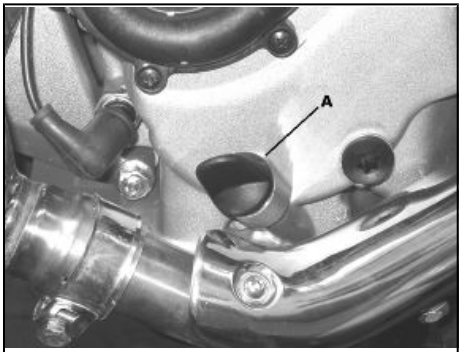
Chap. 03
Maintenance

Engine oil level

In 4-stroke engines, engine oil is used to lubricate the distribution elements, the bushes 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). The replacement frequencies provided for by the maintenance programme are defined, depending on the total contents of oil in the engine and 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 scooter is, however, equipped with an oil pressure warning light on the instrument panel.



03_01

Engine oil level check (03_01, 03_02)

This operation **must be carried out with the engine cold** and following the procedure below:

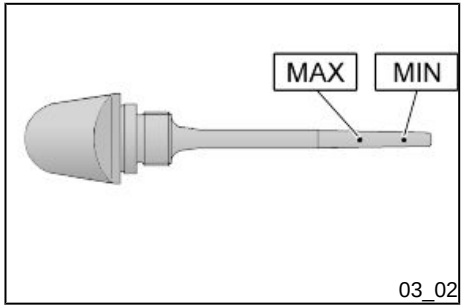
1) Rest the scooter on the central stand and on a flat ground.

2) Set the strut that regulates the position to its minimum height.

3) Screw off cap/dipstick «**A**», dry it off with a clean cloth and reinsert it, **screwing down completely**.

4) Remove the cap/dipstick «**A**» again and check that the level is between the MAX and MIN marks; top up, if required.

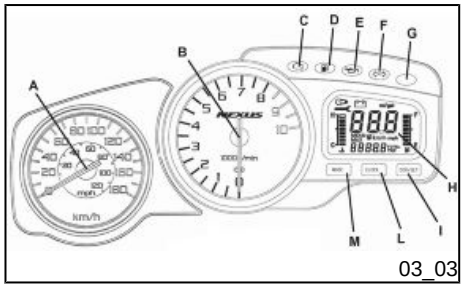
The MAX level as shown in the figure indicates that there is about 1700 cc of oil in the engine. If the check is carried out after the vehicle has been used, and therefore with a hot engine, the level line will be lower; in order to carry out a correct check it is necessary to wait at least 10 minutes after the engine has been stopped, so as to get the correct level.



03_02

Engine oil top-up

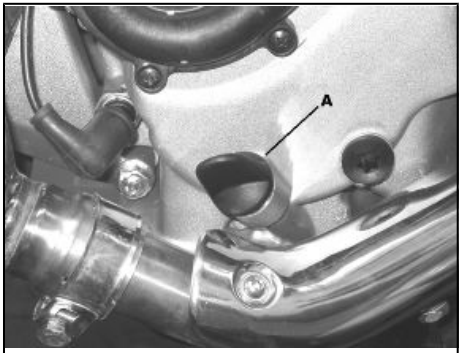
Always check the oil level before carrying out top ups in order **to avoid exceeding the MAX. level.** Getting an oil level between the **MIN** and **MAX** index marks requires ~ 400 cc of oil. An oil check-up and top-up should be carried out every 3000 Km by authorised personnel at any **Authorised Piaggio-Gilera Service Centre**.



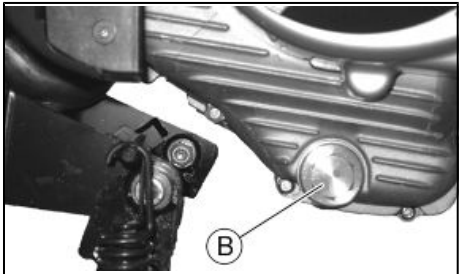
03_03

Warning light (insufficient oil pressure) (03_03)

The vehicle is fitted with a warning light «**E**» that is turned on when the key is turned to «**ON**». This warning must go off once the engine starts. **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 up the oil, the warning light persists in coming on while braking, at idling speed or while turning a corner, it will be necessary to turn to an Authorised Piaggio Service Centre.**



03_04



03_05

Engine oil change (03_04, 03_05, 03_06)

The engine oil and filter must be replaced every 6,000 km at an **Authorised Piaggio-Gilera Service Centre**. The engine should be emptied by draining the oil via the drainage tap «**B**» of the mesh filter on the transmission side. In order to facilitate oil drainage, loosen the cap/dipstick «**A**». Unscrew and remove the oil cartridge filter. Install a new oil filter taking care to lubricate the sealing O-rings with engine oil. Since a certain quantity of oil still remains in the circuit, add approx. 1500 cc of oil through 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 oil changes, use new oil of the recommended type.

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.

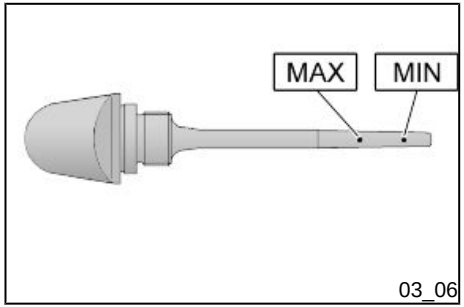
CAUTION

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.

Recommended products

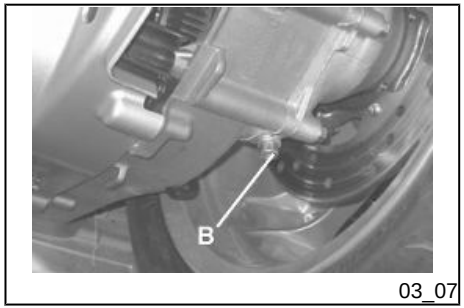
AGIP CITY HI TEC 4T

Four-stroke engine oil



03_06

Lubricating oil for flexible shafts (throttle control)

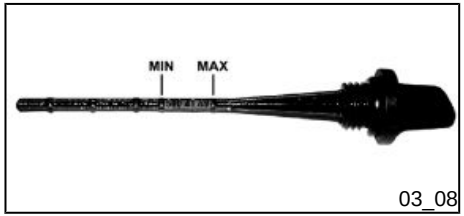


03_07

Hub oil level (03_07)

1) Remove the dipstick.
2) Unscrew the oil drainage screw «**B**» and drain out all the oil.

3) Screw back the drainage screw and refill the hub using the recommended oil quantity and type.



03_08

Hub oil level (03_07, 03_08, 03_09, 03_10)

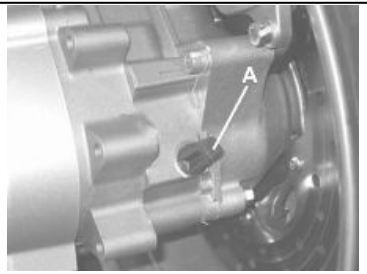
Check the oil in the rear hub.

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

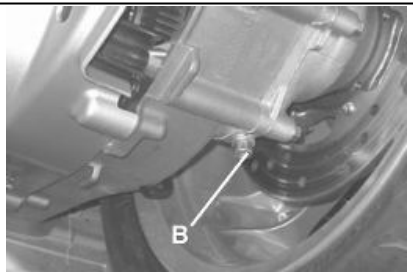
1) Park the scooter on level ground and place it on the centre stand.

2) Set the strut that regulates the position to its minimum height.

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



03_09



03_10

4) Pull out the dipstick and check that the oil level is between the MIN and MAX notches. If the oil level is below the MIN notch, top up the hub with the required amount of oil.

5) 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

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

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

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.

Recommended products

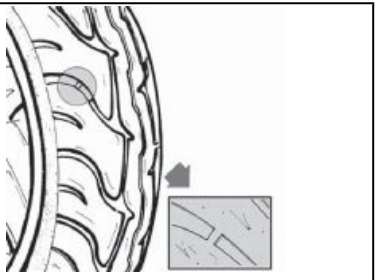
AGIP ROTRA 80W-90

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

Characteristic

Rear hub oil

250 cc


03_11

Tyres (03_11)

Check the tyre pressure and wear periodically (around every 500 km). The tyres are equipped with a wear indicator and should be replaced as soon as these indicators become visible on the tread. Also check that there are no cuts on the sides of the tyres or irregular tread wear; in this case turn to authorized garages or those equipped to replace the 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.

CAUTION

THE USE OF TYRES OTHER THAN THOSE INDICATED MAY CAUSE INSTABILITY. IT IS HIGHLY ADVISABLE TO USE ORIGINAL PIAGGIO TYRES.

Characteristic

Front tyres

Bridgestone 120/70-R15" Tubless 56H - Battlax TH01

Rear tyres

Bridgestone 160/60-R14" Tubless 65H Battlax TH01

Tyre pressure (front wheel)

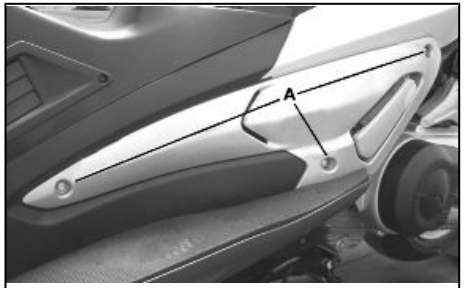
Front wheel: 2.1 bar

Tyre pressure (rear wheel)

Rear wheel: 2.3 bar

Tyre pressure (rear wheel with rider and passenger)

Rear wheel (rider and passenger) 2.5 bar



03_12

03_13

Spark plug dismantlement (03_12, 03_13)

Proceed as follows:
1. Remove the left side cover by the three screws «**A**»;

2. Disconnect the cap «**B**» of the spark plug HV wire;

3. Unscrew the spark plug, using the spanners supplied;

4. Upon re-assembly, insert the spark plug at the correct angle, screwing it in tightly by hand;

5. Only use the spanner supplied for the final tightening work;

6. Insert the cap «**B**» over the spark plug.

WARNING

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

THE SPARK PLUG DISMANTLEMENT SHOULD BE CARRIED OUT WHEN THE ENGINE IS COLD. THE SPARK PLUGS SHOULD BE CHECKED EVERY 6,000 KM AND REPLACED EVERY 12,000 KM. THE USE OF NON CONFORMING ELECTRONIC JUNCTION BOXES AND ELECTRONIC IGNITION SYSTEMS, AND SPARK PLUGS OTHER THAN THOSE PRESCRIBED CAN SERIOUSLY DAMAGE THE ENGINE.

IF THE SPARK PLUG MUST BE REMOVED FOLLOWING THE ENGINE FLOODING, KEEP THE LUG CONNECTED TO THE PLUG AND THE LATTER IN CONTACT WITH AN EARTH POINT AWAY FROM THE SPARK PLUG HOLE, TO PREVENT THE IGNITION OF THE EJECTED FUEL.

Characteristic

Electrode gap

0.7-0.8 mm

Electric characteristic

Spark plug

CHAMPION RG6YC; NGK CR7EKB

Locking torques (N*m)

Spark plug

12 ÷ 14

03_14

Removing the air filter (03_14, 03_15, 03_16, 03_17, 03_18)

Proceed as follows:
1. Raise the saddle, remove the elastic band «**A**» and the battery cover;

2. Loosen the 4 fastening screws «**B**»;

3. Remove the fastening screw «**C**» located below the intake bellows;

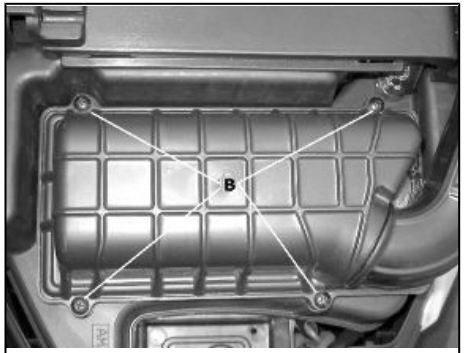
4. replace the filter «**D**» with a new one and refit all the components in the opposite order.

The air filter needs to be checked and possibly blown down every 6000 km at an **Authorized Piaggio-Gilera Service Center**. Air blasts must directed from the inside towards the outside of the filter (i.e. the opposite direction of air flow during normal engine operation).

Any oil and water deposits in the filter box can be eliminated by the pipe «**E**»

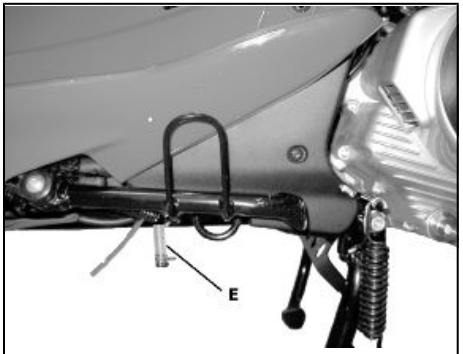
CAUTION

IF THE VEHICLE IS USED ON DUSTY ROADS, IT IS NECESSARY TO SERVICE THE AIR FILTER MORE OFTEN TO AVOID DAMAGING THE ENGINE.



03_15

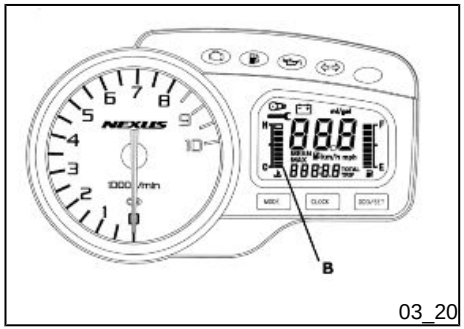
03_16



03_17

03_18

03_19



03_20

Cooling fluid level (03_19, 03_20, 03_21)

The engine cooling takes place through a forced fluid circulation system. The cooling circuit contains around 1.8 lt. of cooling fluid consisting of a mixture of 50% demineralised water and ethylene glycol and corrosion inhibitors based anti-freeze solution. Recommended cooling fluid, which is supplied with the fluid already mixed and ready for use. For the engine to function correctly, the coolant temperature should be between the 4th and the 7th line of instrument «**B**» located on the instrument panel. If the 9th line turns on, the icon and all lines start flashing; stop the engine, let it cool down and check the fluid level; if it is normal, turn to an **Authorized Piaggio-Gilera Service Centre**. The fluid inspection should be carried out every 6,000 km when the motor is cold,following the methods indicated below.
a) Place the vehicle in a vertical position on the support.

b) Remove the plug from expansion tank «**A**» by turning it counter clockwise.

c) Look into the expansion tank: The reference «**C**» indicates the correct cooling fluid level.
d) Top up the cooling fluid with cold engine if the fluid level is below the reference «**C**»

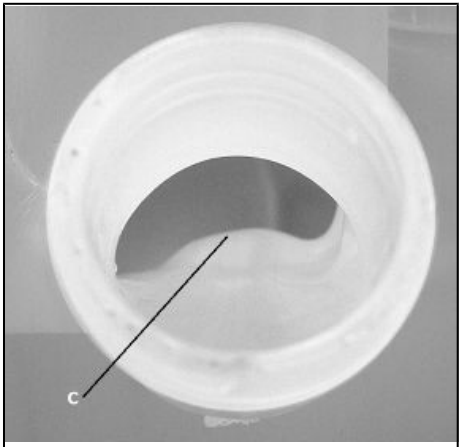
If it is necessary to top up the cooling fluid frequently, or if the expansion tank is completely dry, you should look for the cause in the cooling system. It is therefore indispensable to have the cooling system checked at an Authorized **Piaggio-Gilera Service Centre**. The cooling fluid should be replaced every 2 years. Turn to an Authorized **Piaggio-Gilera Service Centre** for this operation.

N.B.

SHOULD THE 9th SEGMENT OF THE COOLANT TEMPERATURE INDICATOR COME ON DURING A NON-DEMANDING RIDE, SHUT OFF THE ENGINE AND LET IT COOL DOWN. THEN CHECK THE COOLANT LEVEL; IF THE LEVEL IS OK, CONTACT AN AUTHORISED SERVICE CENTRE.

WARNING

TO AVOID THE RISK OF SCALDING, DO NOT UNSCREW THE EXPANSION TANK COVER WHILE THE ENGINE IS STILL HOT.



03_21

WARNING

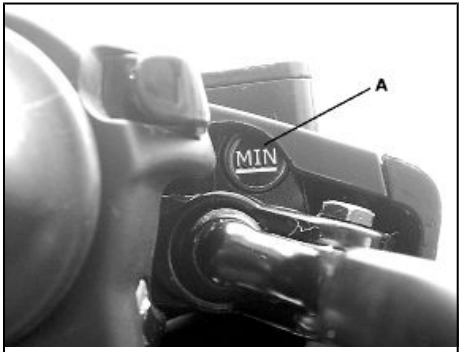
IN ORDER TO AVOID HARMFUL FLUID LEAKS WHILE RIDING, IT IS IMPORTANT TO MAKE SURE THAT THE LEVEL NEVER EXCEEDS THE MAXIMUM VALUE.

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

Recommended products

AGIP PERMANENT SPEZIAL

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



03_22

Checking the brake oil level (03_22)

The front and rear brake fluid tanks are situated on the handlebar. Proceed as follows:

1. Rest the scooter on its centre-stand with the handlebars perfectly horizontal;

2. Check fluid level through the related warning light «**A**».

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 your nearest **PIAGGIO-GILERA Dealer or Authorised Service Centre** in order to carry out a thorough inspection of the braking system.

03_23

Braking system fluid top up (03_23)

Proceed as follows: Unscrew the two screws «**B**», remove the fuel tank cap and the intermediate rubber membrane, and top-up the brake fluid level using only the recommend brake fluid type and without exceeding the maximum level.

Under normal climatic conditions, the brake fluid must be replaced every 20,000 km or every two years, whichever comes first. This operation must be carried out by trained technicians, please contact your nearest **Piaggio-Gilera Dealer or Authorised Service Centre**.

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

03_24

03_25

Battery (03_24, 03_25)

To access the battery, proceed as follows:

1. Place the scooter on its centre stand;

2. Open the saddle following above instructions, see «Saddle» section;

3. Remove the piston ring «**A**» and take off the battery cover.

The battery is the electrical device that requires the most frequent inspections and diligent maintenance. The most relevant maintenance rules to be observed are as follows:

Electric characteristic

Battery

12V-14Ah

Use of a new battery

Make sure that the terminals are connected correctly. Upon the start-up of a new battery, restore the correct time and date on the digital instrument (section «Clock» and «MODE button»), so as to have a proper indication of the maintenance intervals.

CAUTION

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

Checking the electrolyte level

The electrolyte level must be checked frequently and must reach the maximum level. To restore such level, use only distilled water. If water refilling is required too frequently, check the vehicle electric system since the battery works overloaded and can be damaged very quickly.

WARNING

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

CAUTION

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

WARNING

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

Long periods of inactivity

Battery performance will decrease if the scooter 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 scooter components with constant power consumption. Poor battery performance may also be due to environmental conditions and the cleanliness of the terminals. One of the following procedures should be followed to avoid difficult starting and/or irreparable damage to the battery:

- Start the engine **at least once a month** and keep it running slightly above idle for 10 -15 minutes. This keeps all the engine components, as well as the battery, in good working order.

- Store the scooter (as described in the "Periods of inactivity" section) with the battery removed. The battery must be clean, completely charged and stored in a dry and well ventilated area. Recharge **at least once every two months**.

CAUTION

THE BATTERY MUST BE RECHARGED WITH A CURRENT LOAD EQUAL TO 1/10 OF THE BATTERY RATED CAPACITY AND FOR A PERIOD NOT LONGER THAN 10 HOURS. CONTACT AN AUTHORISED PIAGGIO-GILERA SERVICE CENTRE TO CARRY OUT THIS OPERATION SAFELY. WHEN INSTALLING THE BATTERY AGAIN, ENSURE THAT THE TERMINALS ARE CORRECTLY CONNECTED TO THE TERMINALS.

Fuses (03_26, 03_27, 03_28, 03_29)

The electrical system is equipped with:

1. Six fuses "**A**" located on the shield back plate

2. Five fuses "**B**" located in the helmet compartment

3. One fuse of 30A "**D**" (main fuse), located near the battery on the left-hand side, under which is also a replacement fuse.

The rating of the various fuses are stamped on the fuse holders "**C**".

To replace the fuse, use the gripper provided in the tool bag.

The table shows the position and characteristics of the fuses installed in the scooter.

CAUTION

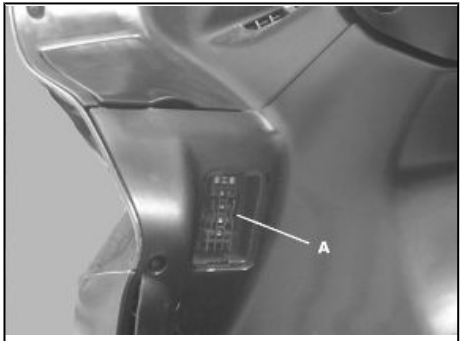
BEFORE REPLACING A BLOWN FUSE, FIND AND SOLVE THE FAILURE THAT CAUSED IT TO BLOW. NEVER TRY TO REPLACE THE FUSE WITH ANY OTHER MATERIAL (E.G., A PIECE OF ELECTRIC WIRE).

FUSES

Not used	**Threshold of operation**: - **Location:** Helmet compartment
License plate light - Tail lights - Instrument panel lights	**Threshold of operation**: 3 A **Location:** Helmet compartment
Instrument unit power supply	**Tripping threshold**: 7,5A

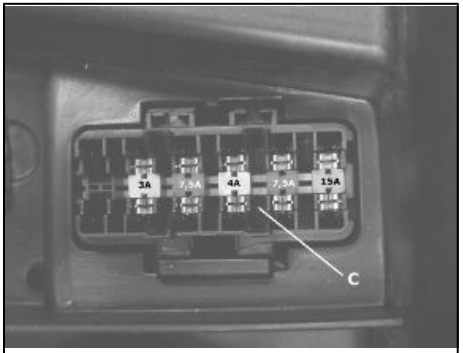
	Locatio: Helmet compartment
Saddle opening receiver power supply	**Tripping threshold**: 4A **Location**: Helmet compartment
Horn - Emergency stop warning light - Instrument panel live supply - Turn indicator control	**Threshold of operation**: 7.5A **Location:** Helmet compartment
Lighter - Helmet compartment light	**Tripping threchold**: 15A **Location**: Helmet compartment
Not used	**Tripping threshold**: - **Location**: Counter-shield
Immobilizer decoder power supply - Injection ECU power supply	**Threshold of operation**: 3 A **Location:** Shield back plate
Injection control unit (+ under key)	**Tripping threshold**: 5A **Location**: Counter-shield
Stop lights - Coil of the start-up remote control switch	**Threshold of operation**: 7.5A **Location:** Shield back plate
High-beam light with warning light	**Threshold of operation**: 7.5A **Location:** Shield back plate
Low-beam light	**Threshold of operation**: 7.5A **Location:** Shield back plate
HV coil - Fuel injector - Fuel pump	**Tripping threshold**: 10A

	Location: Counter-shield
General - Main circuits	**Tripping threshold**: 30A
	Locatio: Battery compartment



03_26

03_27



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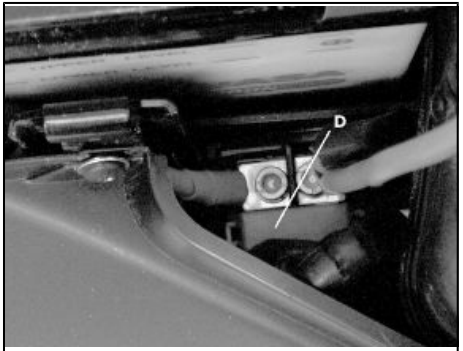


03_29

BULBS

High/low beam light bulb	**Type**: Halogen (H7)

	Power: 12V - 55W **Quantity**: 2
Front headlights bulb	**Type:** ALL GLASS **Power:** 12V - 5W **Quantity:** 2
Direction indicator bulb	**Type:** Spherical **Power:** 12V - 10W **Quantity:** 4
Tail light and stop light bulb	**T**ype: Spherical, double filament **Power**: 12V - 21/5W **Quantity**: 1
License plate light bulb	**Type**: All glass **Quantity**: 1 **Power**: 12V - 5W
Helmet compartment light bulb	**Type**: Cylindrical **Quantity**: 1 **Power**: 12V - 5W

03_30

03_31

Front light group (03_30, 03_31, 03_32, 03_33)

In order to remove the light unit proceed as follows:
1. Remove the front shield connecting member by the three screws «**A**»

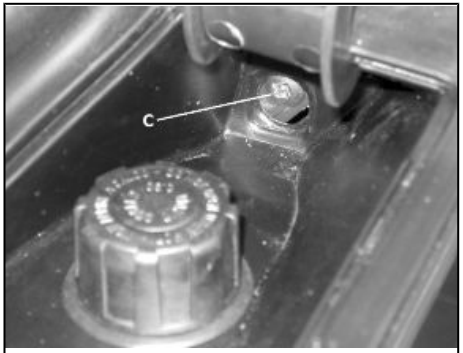
2. Remove the two screws «**B**».

3. Remove screw «**C**» located in the expansion tank plug compartment.

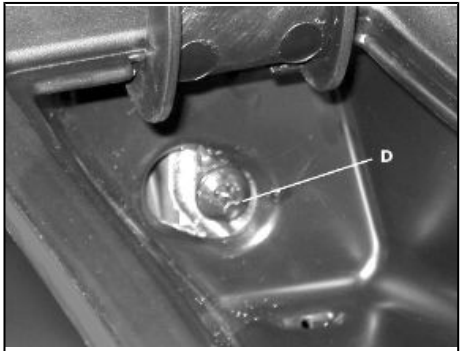
4. Remove screw «**D**» located in the gloves compartment (left side of the counter shield).

5. Remove the light group from its housing;

Repeat the operations in reverse order for re-assembly.

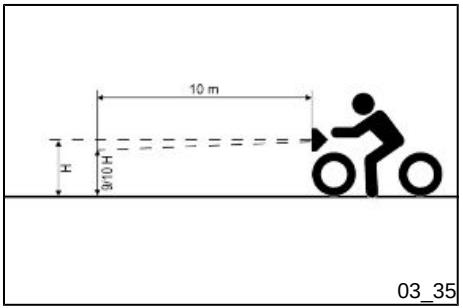


03_32



03_33

03_34



03_35

Headlight adjustment (03_34, 03_35)

Proceed as follows:

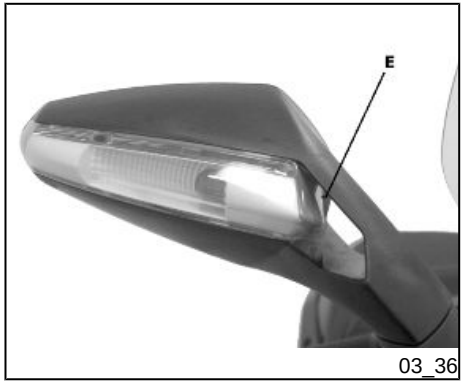
1. Place the vehicle in riding condition and with the tyres correctly inflated on a flat piece of ground at a distance of 10 m from a white screen situated in a shaded area, making sure that the scooter is perpendicular to the screen;

2. Turn on the headlight and check that the edge of the beam projected on the screen is not more than 9/10 of the height of the centre of the headlight from the ground, and not less than 7/10;

3. Otherwise, adjust the right headlight with the screw «**A**» that can be reached after removing the front shield union in the «Front headlight assembly» section.

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.



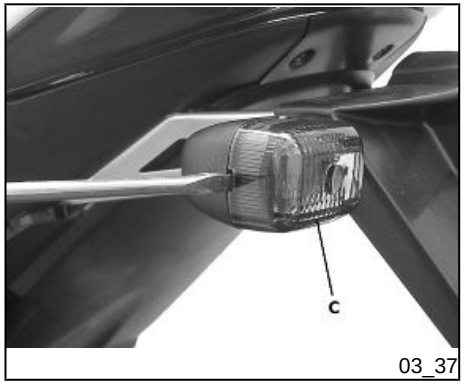
03_36

Front direction indicators (03_36)

To replace the burnt light bulb, remove screw «**E**» on the left and right side, then remove the snap-in plastic part.

WARNING

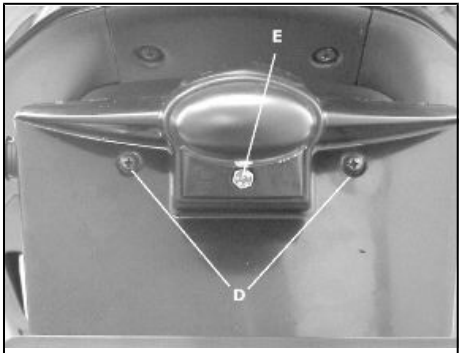
HIGH AND LOW BEAM LIGHT ARE OF THE HALOGEN TYPE: DO NOT TOUCH WITH YOUR FINGERS TO AVOID DAMAGING THEIR FUNCTION.



03_37

Rear turn indicators (03_37)

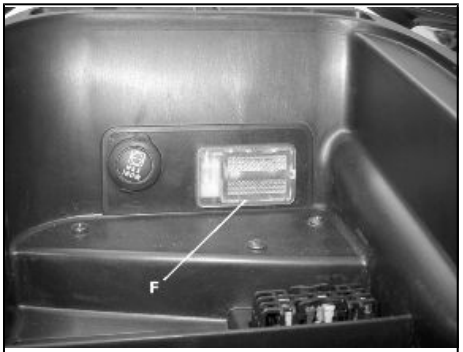
Insert a screwdriver into the slot to remove the plastic cover «**C**».



03_38

Number plate light (03_38)

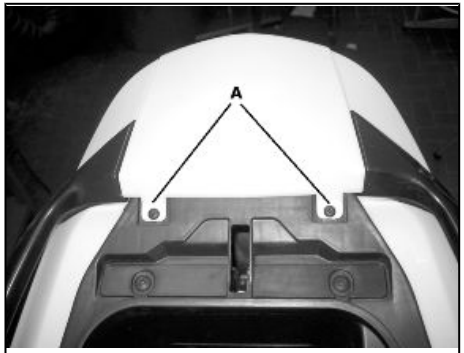
Loosen the two screws «**D**», remove the plastic cover behind the mudguard. Remove screw «**E**» from behind the mudguard. Remove the bulb socket.



03_39

Helmet compartment lighting bulb (03_39)

Open the helmet compartment, take out the pressure mounted glass cover «**F**» and replace the bulb.



03_40

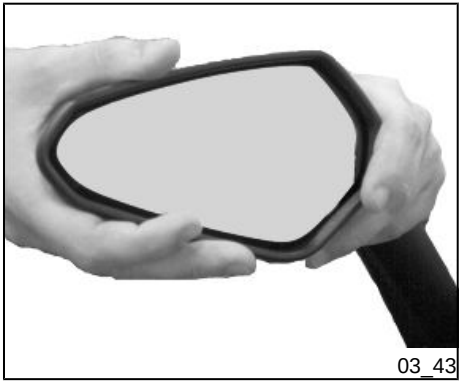
03_41

Brake light (03_40, 03_41)

To remove the stop and position light, proceed as follows:
1. Open the saddle and remove the rear cover by the two screws «**A**».

2. Remove the four screws «**B**» to remove the stop lights plastic cover.

03_42



03_43

Rear-view mirrors (03_42, 03_43)

Adjust the mirrors by applying slight pressure to the side of the mirror to move it to the desired position. The rear-view mirrors fold in when hit for enhanced safety. To set the mirror back to its position, operate manually as indicated.


03_44

Front and rear disc brake (03_44)

The brake disc and pad wear is automatically compensated, therefore it does not have any effect on brake functioning. This means that it is not necessary to adjust the brakes. An excessively elastic brake lever stroke may indicate the presence of air in the brake circuit or a failure in the brake system. In this case, mainly due to the importance of brakes to guarantee safe riding conditions, the vehicle should be taken to a **PIAGGIO-GILERA Dealer or Authorised Service Centre.**

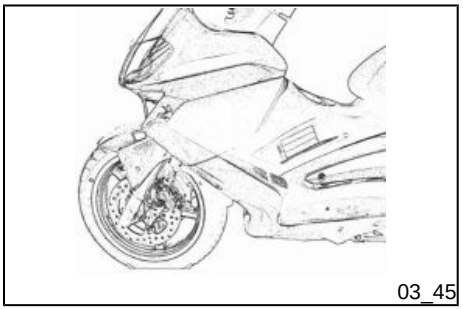
CAUTION

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

HAVE THE BRAKE PADS CHECKED BY THE DEALER ACCORDING TO THE CHECKS SPECIFIED IN THE TABLE OF SCHEDULED MAINTENANCE. 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-GILERA DEALER OR AUTHORISED SERVICE CENTRE. AFTER REPLACING THE BRAKE PADS DO NOT USE THE SCOOTER BEFORE HAVING USED 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.



03_45

Puncture (03_45)

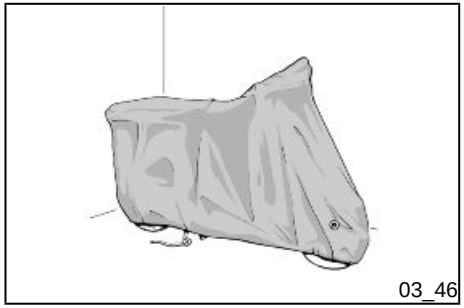
The vehicle is equipped with Tubeless tyres (without inner tubes). In the event of a puncture, contrary to the situation with a tyre with inner tube, the tyre deflates more slowly, resulting in a greater steering safety. A flat tyre can be repaired with an emergency «inflate and repair» spray. In order to repair a tyre completely, take your vehicle to a **Piaggio-Gilera Dealer or Authorised Service Centre**. The replacement of a type involves removing the wheel in question. Take your vehicle to a **Piaggio-Gilera Dealer or Authorised Service Centre** 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_46

Periods of inactivity (03_46)

We recommend carrying out the following operations:

1. Clean the scooter thoroughly and then cover it with a canvas;

2. With the engine off and the piston in the bottom dead centre position, remove the spark plug, and pour into its hole 1 t0 2 cc of the recommended oil. Operate the starter button 1-2 times for roughly 1 second to turn the engine over slowly, then insert the spark plug again;

3. Ensure that the **fuel tank is at least half full (in order to ensure the total immersion of the fuel pump)**; 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

In order to soften the dirt and mud deposited on the painted surfaces, use a low pressure jet of water. Once softened, mud and dirt should be removed with a soft sponge for bodywork soaked in water and "shampoo" (2-4% of 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. Petroleum is harmful for the paint. Remember that any polishing with silicon wax must always be preceded by washing

CAUTION

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

IF YOU WASH THE ENGINE WITH A HIGH-PRESSURE WATER JET MACHINE:

• ONLY USE THE FAN JET.

• DO NOT PLACE THE WATER JET NOZZLE CLOSER THAN 60 CM.

• NOT USE WATER AT A TEMPERATURE OF OVER 40ºC.

• DO NOT USE THE JET AT HIGH PRESSURE.

• DO NOT STEAM CLEAN.

• DO NOT DIRECT THE JET AT: WIRING AND SLOT DIFFUSER ON THE TRANSMISSION 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 .

STARTING PROBLEMS

Emergency switch in «OFF»	Set the switch back to «**ON**»
Side stand down	Lift stand
Fuse blown	Replace the blown fuse and have the scooter checked by an **Authorised Piaggio-Gilera Service Centre.**

START-UP DIFFICULTIES (SEE PARAGRAPH «SAFE DRIVING»)

Lack of fuel in tank.	Refuelling
Injection system failure	Turn to an **Authorized Piaggio-Gilera Service Centre**
Inefficient fuel pump	**Turn to an Authorized Piaggio-Gilera Service Centre**
Battery flat	Recharge the battery.

**** IMPORTANT: DO NOT CONTINUE TO USE THE VEHICLE UNTIL THE FUEL RUNS OUT; IF THIS HAPPENS, DO NOT PERSIST IN TRYING TO START THE ENGINE, TURN THE KEY SWITCH TO THE «OFF»POSITION AND REFUEL THE TANK WITH PETROL AS SOON AS POSSIBLE. THE NON-OBSERVANCE OF THIS REGULATION CAN CAUSE DAMAGE TO THE CATALYTIC CONVERTER SUPPLY PUMP.***

IGNITION PROBLEM

Faulty spark plug	Contact an **Authorised Piaggio-Gilera Service Centre**
Faulty ignition / injection control unit. Due to the presence of high voltage, this element should only be checked by an expert.	Contact an **Authorised Piaggio-Gilera Service Centre**

LOW COMPRESSION

Loose spark plug.	Screw in the spark plug tightly
Cylinder head loose, piston gas rings worn.	Contact an **Authorised Piaggio-Gilera Service Centre**
Valve stuck	Contact an **Authorised Piaggio-Gilera 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 brake system. Presence of air in the front and rear brake circuit.	Contact an **Authorised Piaggio-Gilera Service Centre**
Presence of air in the front and rear brake circuit.	Contact an **Authorised Piaggio-Gilera Service Centre**

INEFFICIENT SUSPENSIONS

Shock absorber fault, oil leak, end buffer damaged; shock absorber preloading incorrectly set	Contact an **Authorised Piaggio-Gilera Service Centre**

AUTOMATIC TRANSMISSION IRREGULARITY

Variators and/or transmission belt damaged	Contact an **Authorised Piaggio-Gilera Service Centre**

Nexus 500

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Chap. 04
Technical data

DATA

Version	500
Engine	Single-cylinder, four-stroke, four valves, single overhead camshaft, chain driven on the flywheel side
Bore x stroke	92 X 69 mm
Cubic capacity	460 cm^3
Compression ratio	10.5: 1
Ignition advance (before TDC)	Variable advance controlled by the injection control unit
Fuel supply	38 Ø mm throttle body and single injector
Spark plug	• NGK CR7EKB • Champion RG6YC
Max. speed	160 km/h
Valve clearance	intake: 0.15 mm discharge (when cold): 0.15 mm (when cold)
Idling rpms	1450±50 rev/min

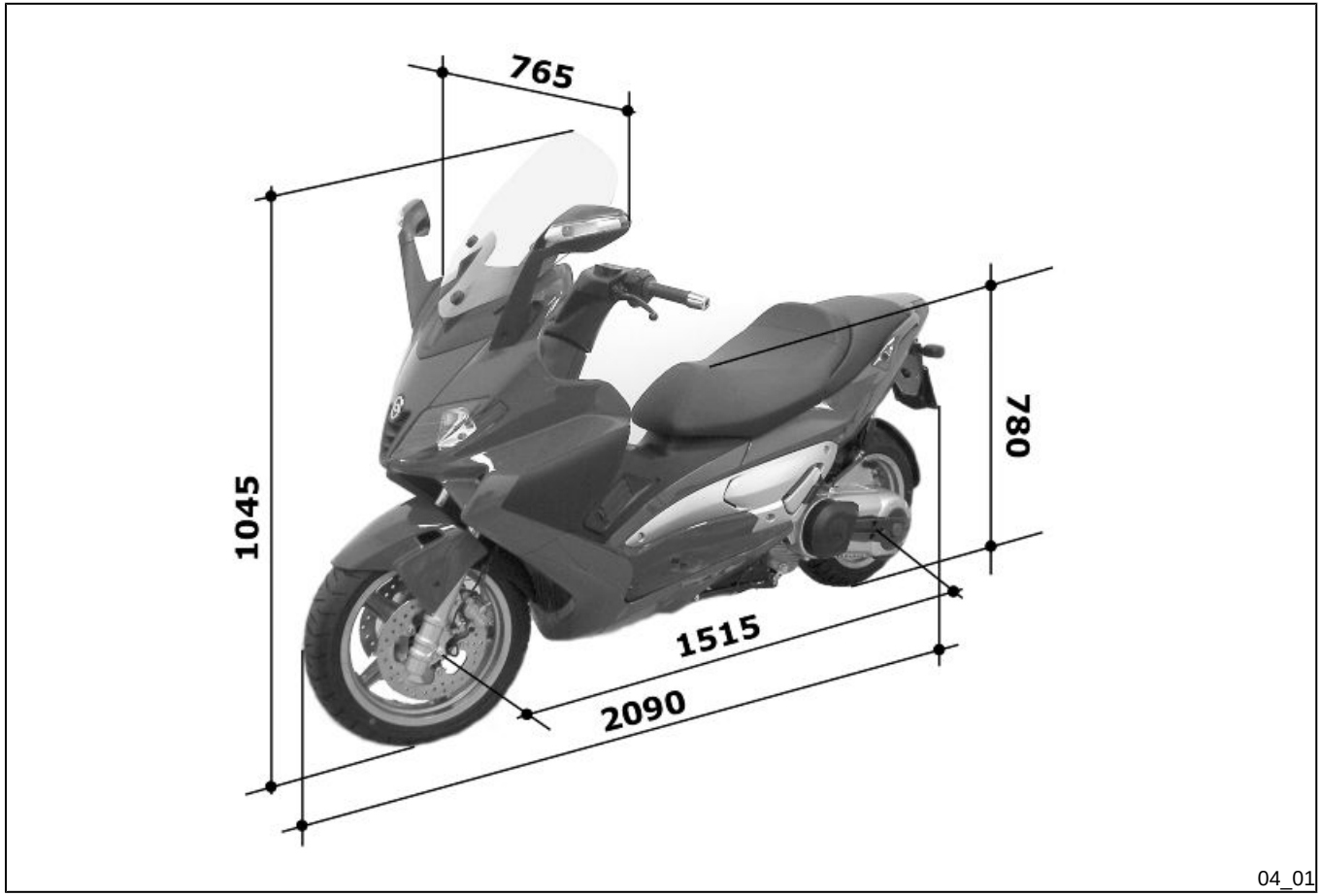
TECHNICAL DATA

Length	2090 mm
Width	765 mm

Height	1045 mm
Saddle height	780 mm
Wheelbase	1515 mm
Fuel supply	Electronic injection with electric fuel pump.
Exhaust muffler	absorption-type exhaust muffler with catalytic converter.
Electronic ignition	inductive, high efficiency integrated with the injection system, with variable timing and separate HV coil.
Lubrication	Engine lubrication with trochoidal pump (inside the crankcase), oil filter and pressure adjustment by-pass.
Cooling	Forced fluid circulation, with engine driven pump; 3 way thermostat with head intake.
Transmission	Automatic expandable pulley speed variator, V belt, dry self-ventilating automatic centrifugal clutch, gear reduction unit and transmission casing with forced air circulation cooling.
Front brake	Ø 260 disc brake (left-hand side of vehicle), with hydraulic control operated from the right-hand brake lever on the handlebar.
Combined brake	Combined, Ø 260 mm front double disc (right side) and Ø 240 mm rear disc with hydraulic command operated by the left lever

	handlebar. The system is controlled by a distribution pressure valve.
front wheel	15"x3.50' alloy rim
rear wheel	14"x4.50" alloy rim
Tyres	Without inner tube
Front tyres	Bridgestone 120/70-R15" Tubless 56H - Battlax TH01
Rear tyres	Bridgestone 160/60-R14" Tubless 65H Battlax TH01
Front suspension	Hydraulic telescopic fork with Ø 41 mm stems, double effect and pin removed by a double brake calliper
Rear suspension	Engine with moving fork articulated to the chassis. Single horizontal shock absorber on the left side, double effect, adjustable to 7 spring reloading position. Variable position with mechanical adjustment on the left side to 15 positions.
Chassis	Welded tubular steel structure, with asymmetrical frame structure, front beams and union elements in stamped sheets.
Empty weight	199 kg
Maximum load	180 kg.
Tank capacity:	14,5 l (approx.)
Reserve	2 l (approx.)
Engine oil (empty)	1.7 lt.

Engine oil (at oil and filter change)	1.5 lt.
Rear hub oil	Capacity approximately 250 cc
Cooling system	approx. 1.8 l



04_01

Kit equipment

One socket wrench; a lever for the socket wrench; one double screwdriver; one hexagonal wrench (mm 6); a special spanner to adjust rear shock absorber, a pair of pliers to extract fuses. The tools are arranged in the helmet compartment.

Nexus 500

GILERA®

Chap. 05
Spare parts and accessories

05_01

Nexus 500

GILERA®

Chap. 06
Programmed maintenance

Scheduled maintenance table

Adequate maintenance is a determining factor in the vehicle's duration in optimal function and performance conditions.
For this purpose, **PIAGGIO-GILERA** has prepared a series of inspection and maintenance operations that can be paid for, grouped together in the summary table on the next page.

It is a good rule to point out any small function anomalies to an **Authorized Piaggio-Gilera Dealer or Service Centre** at once, without waiting until the next time your vehicle is serviced, in order to remedy them as soon as possible.

It is indispensable to have your vehicle serviced at the prescribed intervals of time, even if you have not reached the predicted mileage.

Punctual inspections are required for the proper use of the guarantee. For all further information regarding the Guarantee application modes and the execution of the «Programmed Maintenance» refer to the «Guarantee Booklet».

EVERY 2 YEARS

Coolant - change
Brake fluid - change

EVERY 3,000 KM

Engine oil - level check/ top-up
Brake pads - check condition and wear

AFTER 1,000 KM OR 4 MONTHS

Engine oil - replacement
Hub oil - change
Carburetion - check/adjust
Seals/injection system hoses - visual check
Base vent - check
Steering - adjustment
Brake control levers - greasing
Brake fluid level - check
Safety locks - check
Electrical system and battery - check
Vehicle and brake test - road test

AT 6000 KM OR 12 MONTHS

Engine oil - replacement
Hub oil - level check
Spark plug / electrode gap - check
Air filter - cleaning
Engine oil - change
Valve clearance - check
Base vent - check

Variable speed rollers - replacement
Driving belt - checking
Coolant level - check
Brake fluid level - check
Electrical system and battery - check
Tyre inflation and wear - Check
Vehicle and brake test - road test

AT 12000 KM OR 24 MONTHS AND 60000 KM

Engine oil - replacement
Hub oil - level check
Spark plug / electrode gap - replacement
Air filter - cleaning
Engine oil - change
Carburetion - check/adjust
Seals/injection system hoses - visual check
Base vent - check
Variable speed rollers - replacement
Roller support sliding blocks - check/change
Driving belt - replacement
Coolant level - check

Steering - adjustment
Brake control levers - greasing
Transmissions - lubricate
Brake fluid level - check
Safety locks - check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment
Tyre inflation and wear - Check
Vehicle and brake test - road test

AT 18000 KM AND AT 54000 KM

Engine oil - replacement
Hub oil - level check
Spark plug / electrode gap - check
Air filter - change
Engine oil - change
Valve clearance - check
Base vent - check
Variable speed rollers - replacement
Driving belt - checking

Coolant level - check
Radiator - external cleaning/ check
Brake fluid level - check
Electrical system and battery - check
Tyre inflation and wear - Check
Vehicle and brake test - road test

AT 24000 KM

Engine oil - replacement
Hub oil - change
Spark plug / electrode gap - replacement
Air filter - clean
Engine oil - change
Fuel filter - check
Carburetion - check/adjust
Seals/injection system hoses - visual check
Base vent - check
Variable speed rollers - replacement
Roller support sliding blocks - check/change
Driven pulley bushing - check / grease
Driving belt - replacement

Coolant level - check
Steering - adjustment
Brake control levers - greasing
Transmission elements - lubrication
Brake fluid level - check
Safety locks - check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment
Tyre inflation and wear - Check
Vehicle and brake test - road test

AT 30000 KM, 42000 KM AND 66000 KM

Engine oil - replacement
Hub oil - level check
Spark plug / electrode gap - check
Air filter - cleaning
Engine oil - change
Base vent - check
Variable speed rollers - replacement
Driving belt - checking

Coolant level - check
Brake fluid level - check
Electrical system and battery - check
Tyre inflation and wear - Check
Vehicle and brake test - road test

AT 36000 KM

Engine oil - replacement
Hub oil - level check
Spark plug / electrode gap - replacement
Air filter - change
Engine oil - change
Valve clearance - check
Carburetion - check/adjust
Seals/injection system hoses - visual check
Base vent - check
Variable speed rollers - replacement
Roller support sliding blocks - check/change
Driving belt - replacement
Coolant level - check
Radiator - external cleaning/ check

Steering - adjustment
Brake control levers - greasing
Flexible brake tubes - replacement
Transmission elements - lubrication
Brake fluid level - check
Safety locks - check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment
Tyre inflation and wear - Check
Vehicle and brake test - road test

AT 48000 KM

Engine oil - replacement
Hub oil - level check
Spark plug / electrode gap - replacement
Air filter - clean
Engine oil - change
Fuel filter - replacement
Carburetion - check/adjust
Seals/injection system hoses - visual check

Base vent - check
Variable speed rollers - replacement
Roller support sliding blocks - check/change
Driven pulley bushing - check / grease
Driving belt - replacement
Coolant level - check
Steering - adjustment
Brake control levers - greasing
Transmission elements - lubrication
Brake fluid level - check
Safety locks - check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment
Tyre inflation and wear - Check
Vehicle and brake test - road test

AT 72000 KM

Engine oil - replacement
Hub oil - change
Spark plug / electrode gap - check / replacement

Air filter - change
Engine oil - change
Fuel filter - check
Valve clearance - check
Carburetion - check/adjust
Seals/injection system hoses - visual check
Base vent - check
Variable speed rollers - replacement
Roller support sliding blocks - check/change
Driven pulley bushing - check / grease
Driving belt - replacement
Coolant level - check
Radiator - external cleaning/ check
Steering - adjustment
Brake control levers - greasing
Flexible brake tubes - replacement
Transmission elements - lubrication
Brake fluid level - check
Safety locks - check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment
Tyre inflation and wear - Check

Vehicle and brake test - road test

RECOMMENDED PRODUCTS TABLE

Product	Description	Specifications
AGIP GEAR 80W-90	Oil for speed gearbox	SAE 80W-90, API GL-4 mineral multigrade oil
AGIP CITY HI TEC 4T	Oil to lubricate flexible transmissions (throttle control)	Oil for 4-stroke engines
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
AGIP PERMANENT SPEZIAL	coolant	Monoethylene glycol-based antifreeze fluid, CUNA NC 956-16
AUTOSOL METAL POLISH	Muffler cleaning paste	special product for cleaning and polishing stainless steel muffler
AGIP GREASE PV2	Grease for the steering bearings, pin seats and swinging arm	Soap-based lithium and zinc oxide grease containing NLGI 2; ISO-L-XBCIB2 of the swinging arm
AGIP GREASE SM 2	Grease for the tone wheel revolving ring	Soap-based lithium grease containing NLGI 2 Molybdenum disulphide; ISO-L-XBCHB2, DIN KF2K-20

TABLE OF CONTENTS

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

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

PIAGGIO & C. S.p.A. - After-Sales

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