

Vespa would like to thank you

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

# Vespa GTS 300 i.e. - Vespa GTS 300 i.e. ABS



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



### **Personal safety**

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



### **Safeguarding the environment**

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



### **Vehicle intactness**

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

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



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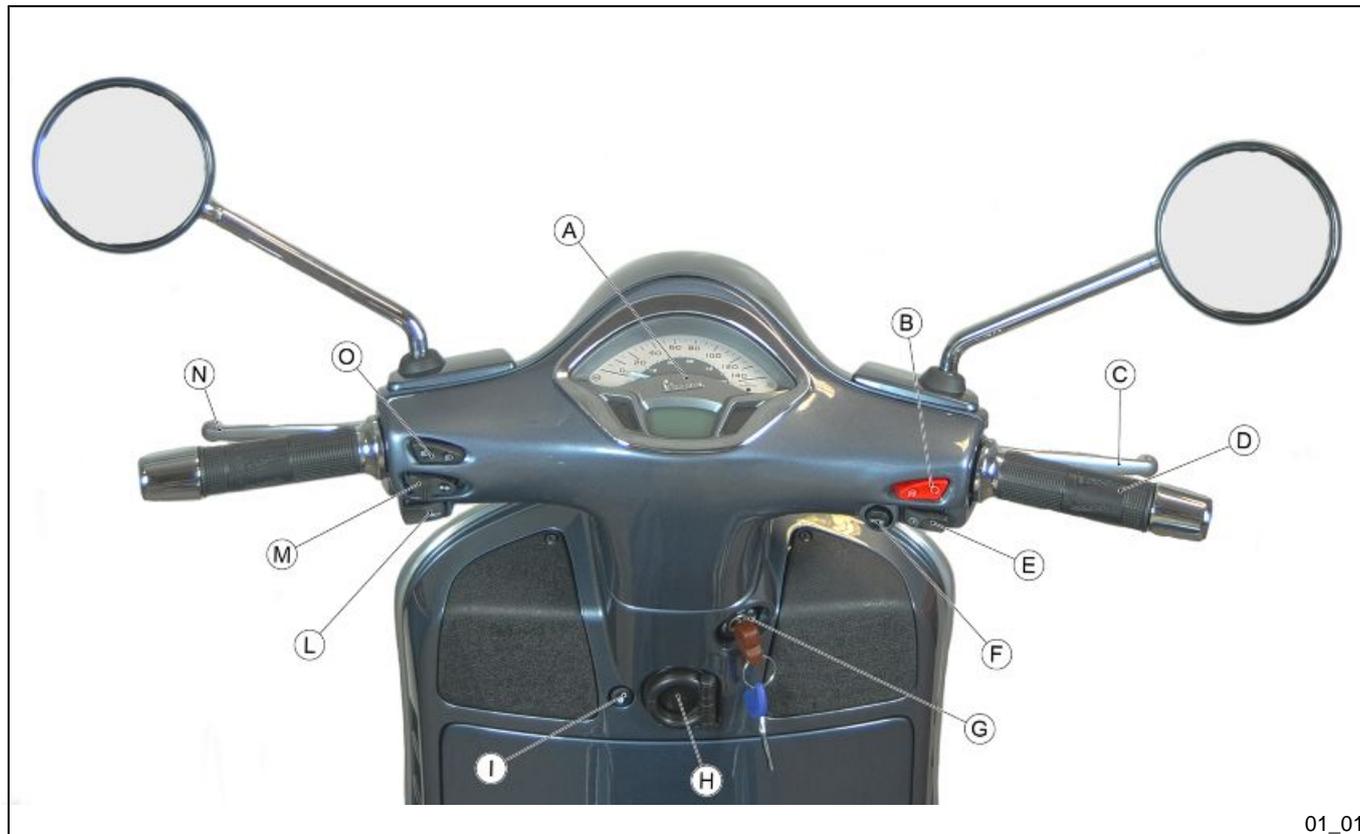
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# Vespa GTS 300 i.e. - Vespa GTS 300 i.e. ABS



**Chap. 01  
Vehicle**

## Dashboard (01\_01)



01\_01

**A** = Instrument panel

**B** = RUN/OFF switch

**C** = Front brake lever

**D** = Throttle grip

**E** = Starter button/Enabling-disabling button ASR system (where available)

**F** = MODE button

**G** = Ignition switch

**H** = Bag hook

**I** = Saddle opening button

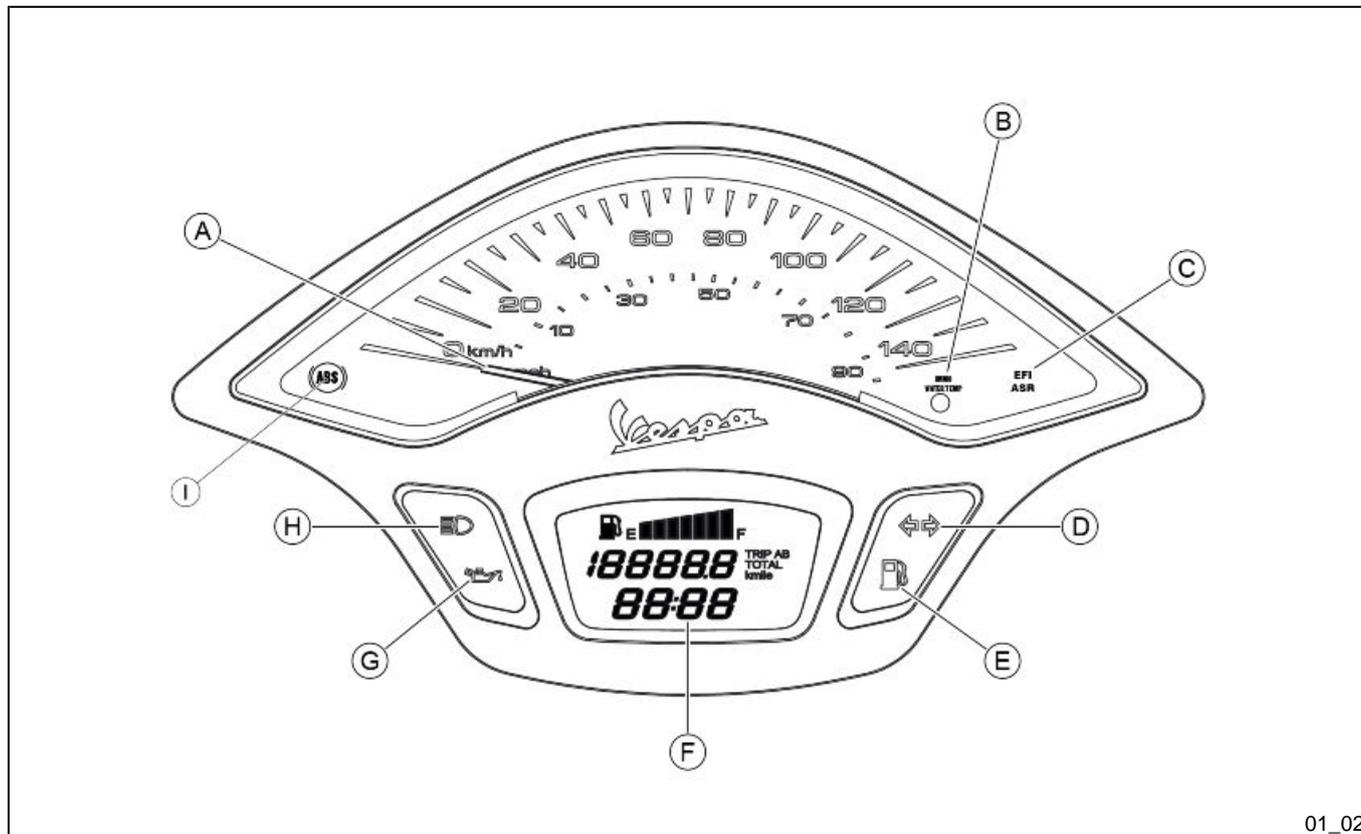
**L** = Horn button

**M** = Turn indicator control

**N** = Rear brake lever

**O** = Light switch

## **Analogue instrument panel (01\_02)**



01\_02

A = Speedometer

B = Immobilizer warning light /engine temperature

**C** = Engine control warning light/ASR (where available)

**D** = Turn indicator warning light

**E** = Low fuel warning light

**F** = Digital display

**G** = Insufficient oil pressure warning light

**H** = High beam warning light

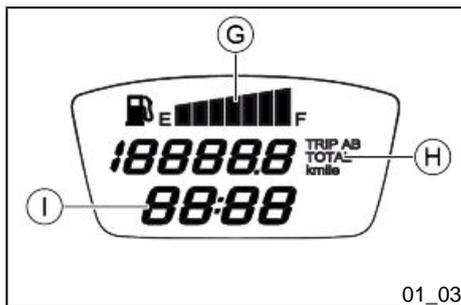
**I** = ABS warning light (where available)

### Digital lcd display (01\_03)

**G** = Fuel gauge with petrol symbol

**H** = Total or partial odometer

**I** = Clock



By turning the ignition key to the «**ON**» position all the digital display functions will light up for a few seconds.

#### MULTIFUNCTION INDICATOR «**H**»

Acting on the «**MODE**» button this indicator displays the following functions in sequence:

- Total odometer (TOTAL)
- Partial odometer A (TRIP A)

- Partial odometer B (TRIP B)

For this indicator, the unit of measurement can be changed (from Km to Miles) with the following procedure:

- turn the key to the «**OFF**» position;
- press the «**MODE**» button;
- Holding in the «**MODE**» button, turn the key to the «**ON**» position;
- after about 2 seconds release the «**MODE**» button.

#### **WARNING**

**TO GO FROM «KM» TO «MILE» THE MULTIFUNCTION INDICATOR «C» MUST BE SET TO TOTAL ODOMETER (TOTAL).**

#### **N.B.**

**IN THE NAVIGATION OF THE DISPLAY ARE DEFINED:**

- «**BRIEF PRESS**»: A PRESS OF THE INDICATED BUTTON, FOR A PERIOD OF LESS THAN TWO SECONDS;
- «**PROLONGED PRESS**»: A PRESS OF THE INDICATED BUTTON, FOR A PERIOD OF MORE THAN TWO SECONDS.

#### **\*MODE\* button (01\_04)**

With the vehicle running or with the key in position «**ON**», by short pressing the MODE key «**A**», the odometer view can be changed (TOTAL, TRIP A, TRIP B).

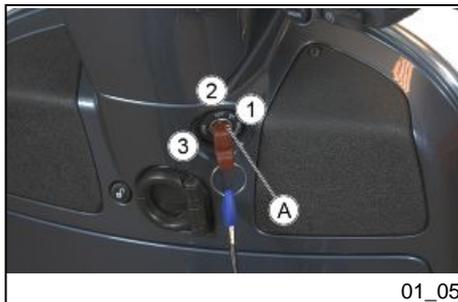
By pressing and holding the MODE key, it is possible to:

- on the TOTAL screen page, proceed with adjusting the clock;
- on the TRIP A or TRIP B screen page, reset the relative counter.



## Keyswitch (01\_05)

Ignition key «A» is located on the front leg shield back plate near the bag hook.



### SWITCH POSITIONS

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

**OFF «2»:** Ignition disabled, extractable key, mechanical anti-theft device disabled.

**LOCK «3»:** Ignition disabled, extractable key, mechanical anti-theft device enabled.

### Locking the steering wheel

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

#### CAUTION



**NEVER TURN THE KEY TO «LOCK» OR «OFF» WHILE RIDING.**

### Releasing the steering wheel

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

**CAUTION**

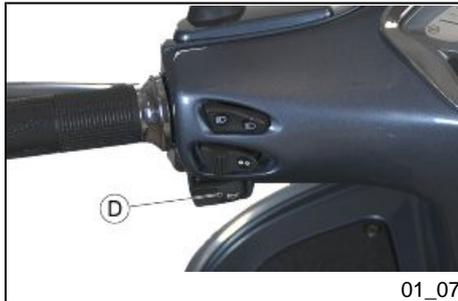
**NEVER TURN THE KEY TO «LOCK» OR «OFF» WHILE RIDING.**

**Switch direction indicators (01\_06)**

Move switch «E» to the left to indicate a left turn; move switch «E» to the right to indicate a right turn. Push the central part of switch «E» to deactivate the turn indicators.

**Horn button (01\_07)**

Push the button «D» to sound the horn.



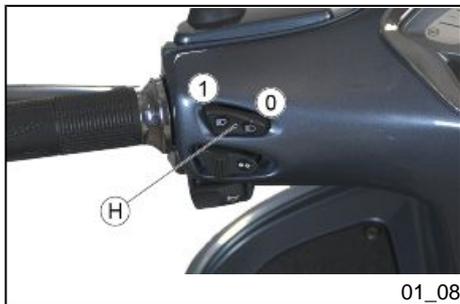
### Light switch (01\_08)

When the light switch «H» is set to «0», the low-beam light is on. When set to «1», the high-beam light is activated.

#### CAUTION



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



### Start-up button (01\_09)

Starter button «E»





## 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.

## System ABS (01\_11, 01\_12)

### WARNING



**DEPENDING ON THE PURCHASED VERSION THE VEHICLE IS EQUIPPED WITH THE ABS SYSTEM. THE INDICATIONS SHOWN BELOW ARE TO REFER TO FOR VEHICLES WITH ABS SYSTEM, IT IMPROVES THE SAFETY DURING BRAKING BY AVOIDING THAT THE WHEELS BLOCK.**

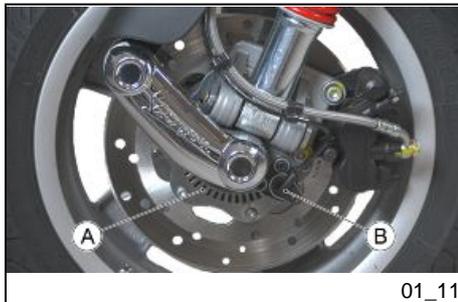
The vehicle is equipped with a locking ABS system on the wheels.

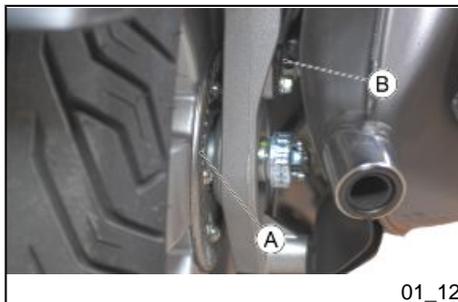
**A: Tone wheel**

**B: Speed sensor**

- **ABS:** It is a hydraulic - electronic device that limits the pressure within the braking circuit when a sensor, located on the wheel, detects its tendency to lock. This system prevents the wheels from locking to avoid the risk of falling.

In case of failure of the ABS system, immediately reported to the rider with ABS warning light on the instrument panel, the vehicle retains the characteristics of a conventional braking system. In case of ABS warning light, reduce speed and go to an





Authorised Service Centre for the appropriate checks. The safety provided by the ABS does not, in any case, justify risky manoeuvres. The stopping distance may be greater, compared to a conventional vehicle equipped with traditional braking in the following conditions:

- Riding on rough roads, with gravel or snow
- Riding on roads with holes or bumps

It is therefore recommended to reduce speed in these conditions.



**AT VERY LOW SPEEDS (LESS THAN 5 KM/H) THE ABS SYSTEM IS DISABLED.**

**IT IS RECOMMENDED TO PAY ATTENTION THEREFORE IN CASES OF BRAKING IN LOW GRIP CONDITIONS AT LOW SPEED (FOR EXAMPLE BRAKING ON GARAGE FLOOR TILES AFTER HAVING RIDDEN ON WET ROADS OR SIMILAR SITUATIONS)**

**N.B.**

**THE ABS WARNING LIGHT TURNS ON AND STAYS ON UNTIL REACHING 5 KM/H.**

**CAUTION**



**IN THE EVENT OF MALFUNCTION OF THE BATTERY, THE ABS - ASR SYSTEM TURNS OFF.**

## **System ASR (01\_13, 01\_14)**

### **ASR SYSTEM**

The ASR system is a device to help riding that helps the rider during acceleration manoeuvres, especially on slippery surfaces or in conditions that can cause sudden

slippage of the rear wheel. The ASR in these situations automatically intervenes by reducing engine output within the limit imposed by the grip conditions, contributing significantly to the maintenance of stability the vehicle.

#### WARNING

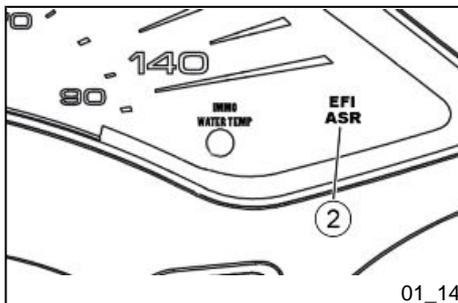


**THE ASR SYSTEM IS BASED ON THE RECOGNITION OF SPEED DIFFERENCES BETWEEN FRONT AND REAR WHEEL. IN ORDER FOR THE SYSTEM TO MAINTAIN MAXIMUM EFFICIENCY IN ALL CONDITIONS, THE CALIBRATION PROCEDURE MUST BE PERFORMED EVERY TIME, EVEN IN CASE OF REPLACEMENT OF JUST ONE TYRE.**

**FOR THE CALIBRATION OF THE CONTROL UNIT PERFORM THE PROCEDURE BELOW.**



- **BUTTON «1» (with the engine running):** on / off.
- **ASR/EFI WARNING LIGHT «2»:**ASR and EFI operating indication warning light (engine malfunction).



**N.B.**

THE WARNING LIGHT PERFORMS AN INITIAL CHECK AT KEY ON; AFTERWARDS OPERATE AS DESCRIBED AS FOLLOWS.

**N.B.**

THE ENGINE MALFUNCTION (EFI) HAS PRIORITY OVER THE ASR FUNCTION.

#### **WARNING**

UNDER NORMAL OPERATING CONDITIONS (ASR ENGAGED), THE ENGINE MALFUNCTION WARNING LIGHT IS OFF.

#### **CAUTION**

WHEN THE WARNING LIGHT FLASHES WITH A FREQUENCY OF 1 FLASH PER SECOND (1 HZ), THERE IS AN ENGINE MALFUNCTION. SHOULD THIS HAPPEN, CONTACT AN AUTHORISED SERVICE CENTRE.

#### **Flashing mode:**

- Frequency of 5 flashes per second (5Hz), with vehicle running: the system is up and running (conditions of low grip and intervention to reduce engine power); we recommend the utmost caution because the grip limit has been exceeded; restore the vehicle safety conditions by gently reducing the throttle opening.

- Frequency of 2 flashes per second (2 Hz), with vehicle running: the system is in calibration phase; for the specific procedure refer to the following.

- Lit with moving vehicle: the system is disabled and will not intervene in case of loss of grip.

- If the deactivation was voluntary (by pressing the appropriate button «1» for 1 second with the engine running) it is recommended to reactivate the system as soon as possible.
- If the deactivation was NOT voluntary, there is an ASR failure: in this case you must contact an **Authorised Service Centre** for the diagnosis and the reactivation of the system.

To ensure maximum safety of the vehicle it is advisable to keep the system active. Deactivation may be necessary only in case of starting with very low grip surfaces (mud, snow) on which the operation of the ASR could actually prevent the movement of the vehicle.

#### WARNING



**THE ASR SYSTEM IS ACTIVATED AT EVERY «ON» POSITIONING OF THE IGNITION SWITCH.**

**IF DISABLED BY THE USER, THE ASR SYSTEM KEEPS THE STATE OF INACTIVITY ONLY IF THE VEHICLE IS OFF, BY USING THE ENGINE STOP SWITCH; AT THE NEXT KEY ON THE ASR SYSTEM IS ENABLED AUTOMATICALLY.**

#### CAUTION



**IT IS EMPHASISED THAT THE RIDING AUXILIARY SYSTEM CAN NOT CHANGE THE PHYSICAL LIMITS OF GRIP AND IS NOT A SUBSTITUTE FOR PROPER MANAGEMENT OF POWER, BOTH ON STRAIGHT STRETCHES AND IN TURNS. THEREFORE, IT IS RECOMMENDED TO ALWAYS USE THE VEHICLE WITH THE UTMOST CARE AND IN ACCORDANCE WITH THE REGULATIONS IN FORCE.**

**CAUTION**

**AT LOW SPEED (LESS THAN 5 KM/H), THE ASR SYSTEM DOES NOT WORK.**

**IT IS RECOMMENDED TO PAY PARTICULAR ATTENTION IN THE EVENT OF ACCELERATION FROM STANDSTILL IN CONDITIONS OF LOW GRIP, ESPECIALLY IN THE FIRST METRES.**

**N.B.**

**IN CASE OF ROADS FULL OF HOLES THERE MAY OCCUR BRIEF ACTIVATION OF THE ASR SYSTEM. THIS OCCURS UNDER NORMAL OPERATING CONDITIONS OF THE VEHICLE.**

**N.B.**

**THE DEVICE PREVENTS IMPRESSING ON THE REAR HIGH SPEED ROTATION WHEEL WITH THE VEHICLE ON THE CENTRE STAND. IT IS RECOMMENDED NOT TO INSIST WITH THE THROTTLE GRIP IN THIS PARTICULAR CONDITION.**

**CAUTION**

**A POOR STATE OF MAINTENANCE OF THE TYRES CAN RESULT IN ABNORMAL OPERATION OF THE ASR SYSTEM.**

**IN CASE OF REPEATED INTERVENTIONS OF THE ASR, EVEN ON ROAD SURFACES WITH GOOD GRIP OR SMALL THROTTLE OPENINGS, IT IS NECESSARY TO CHECK FOR WEAR AND/OR THE STATE OF INFLATION OF TYRES FIRST. IF THE PROBLEM PERSISTS, CONTACT AN AUTHORISED SERVICE CENTRE.**

## CAUTION



**IN THE EVENT OF MALFUNCTION OF THE BATTERY, THE ABS - ASR SYSTEM TURNS OFF.**

### **ASR SYSTEM CALIBRATION PROCEDURE.**

In order to maintain the effectiveness of the ASR system following the replacement of one or both tyres a calibration procedure of the system must be performed as follows on a straight flat stretch of road. Please note that the request for activation of the procedure (steps 1 to 4) must be completed within 60 sec from ignition on the engine.

- It is necessary that the diagnostic phase of the ASR systems and ABS is complete: for this purpose, after the key ON, ride a short distance above 5 km/h and wait for the flashing of the EFI/ASR warning light to stop.
- Turn the ASR system off by pressing the button «1» on the handlebar and check that the ASR disabling warning light «2» is on.
- Allow the engine to idle for at least 3 seconds.
- Press the ASR on/off button «1» and one of the two brake levers simultaneously for at least 4 seconds. The activation of the procedure will be confirmed by lighting up of the EFI/ASR warning light «2» with a frequency of 2 flashes per second (2 Hz).
- Accelerate to a constant speed of 30 to 40 km/h and maintain it for at least 7 to 8 seconds.
- The end of the procedure will be indicated by the flashing EFI/ASR warning light «2».
- Once the procedure is complete it is necessary to turn off the vehicle panel (key off) and wait 30 seconds before turning the panel on (key on).
- In case of failure to complete the procedure within 2 minutes the EFI/ASR warning light «2» will stay on steady and the ASR will remain off until the panel is turned off (key off).

- To restart the ASR it is necessary to turn on vehicle panel (key on).

It is however necessary to repeat the process until it succeeds.

#### CAUTION



**IF NECESSARY, CONTACT AN AUTHORISED SERVICE CENTRE.**

### The immobilizer system

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

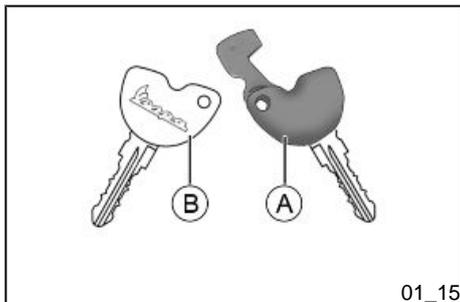
### Keys (01\_15)

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

#### WARNING



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



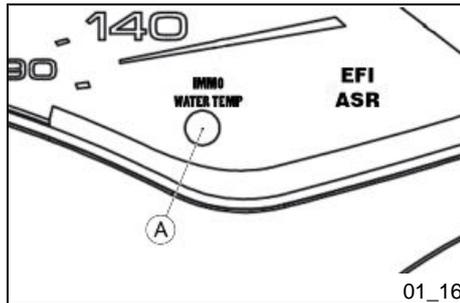
01\_15

## Immobilizer device enabled indicator led (01\_16)

### CAUTION



**WITH THE ENGINE RUNNING, THE WARNING LIGHT «A» HAS THE FUNCTION TO SIGNAL THE ENGINE COOLANT TEMPERATURE. REFER TO THE SECTION «MAINTENANCE» / «COOLANT LEVEL».**



Activation of the "**PIAGGIO IMMOBILIZER**" system is signalled by a flashing «A» indicator. In order to reduce battery discharge, the indicator LED turns off automatically after 48 hours of uninterrupted functioning. Should the system fail, different LED flashing patterns will provide the **Authorised Service Centre** with information on the type of fault detected.

### Operation

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

When additional keys are required, please note that data storage (up to 7 keys max.) must be done on all keys, both new and existing ones. Take the key with the brown grip and all the blue keys supplied to an **Authorised Piaggio Service Centre**. The

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

#### **WARNING**



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

**VIOLENT SHOCKS MAY AFFECT THE ELECTRONIC COMPONENTS OF THE KEY.**

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

### **Programming the immobilizer system (01\_17)**

Below is described the procedure to follow for programming the **PIAGGIO IMMOBILISER** system and/or for storing other key codes. The programming procedure should be carried out with the engine stop switch set to «**RUN**».

#### **START PROCEDURE**

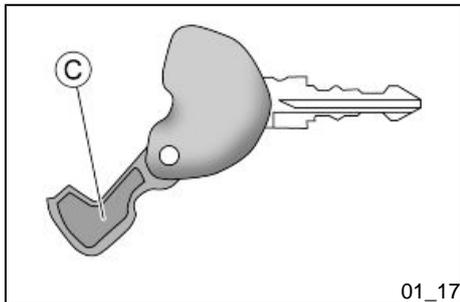
Insert the «**MASTER**» key «**A**» into the ignition switch (in «**OFF**») and turn it to «**ON**». After 1 - 3 seconds, turn the key to «**OFF** » again and pull it out.

#### **INTERMEDIATE STAGE**

After extracting the «**MASTER**» key «**A**», insert, within ten seconds, the key that is going to be programmed «**B**» and turn it immediately to «**ON**». After 1-3 seconds, turn the key to «**OFF**» again and pull it out. In this way, a maximum of 7 keys can be programmed by repeating the above procedure and keeping the indicated times.

## FINAL STAGE

After extracting the key to be programmed «B», insert the «MASTER» key «A» again and turn it to «ON» (perform this operation within the 10 seconds following the extraction of the previous key). Leave it in this position for 1 to 3 seconds and return it to «OFF».



## CORRECT PROGRAMMING CHECK PHASE

Insert the «MASTER» key «A» disabling the transponder «C» (i.e., by tilting the key cap by 90°), and turn the key to «ON». Perform the engine starter operation. Ensure that the engine does not start. Insert the programmed key «B» and repeat the starter operation. Check that engine starts.

## WARNING



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



## Accessing the fuel tank (01\_18, 01\_19)

With the key in the «OFF» or «ON» position, or with the engine running it is possible to electrically open the saddle by pressing the «C» button. In case of failure of the electrical opening, operate the emergency lever «A».

## CAUTION



**ALWAYS USE PETROL WITH A MAXIMUM OF 10% BIOETHANOL CONTENT (E10).**



01\_19

**DO NOT USE PETROL WITH AN ETHANOL CONTENT HIGHER THAN 10%; THIS USE COULD DAMAGE THE FUEL SYSTEM COMPONENTS AND/OR COMPROMISE ENGINE PERFORMANCE.**

### **USB socket (01\_20)**

Inside the front glove compartment on the left side, in the versions where available, is a USB plug «A».

To use it, remove the protective cap. Cover the socket again with the cap to avoid that water and/or humidity could damage it.

#### **CAUTION**



**THE SUPPLIED USB SOCKET IS COMPATIBLE WITH THE DEVICES OF THE FOLLOWING BRANDS: Apple iPhone, Apple iPod, Apple iPod Nano, Apple iPod Touch, Blackberry Pearl, Blackberry 8xxx AND NOT COMPATIBLE WITH THE DEVICES FOR THE PRODUCTS OF THE MOTOROLA BRAND.**

The USB socket is active once the key is turned to «ON».



01\_20

## CAUTION



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

## USB PORT

*USB port*

Output voltage	(5.00±0.25) Vdc
Charging current	1 A max

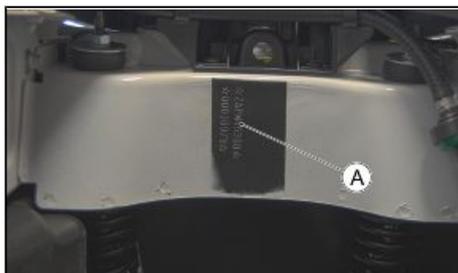


## **Opening the saddle (01\_21, 01\_22)**

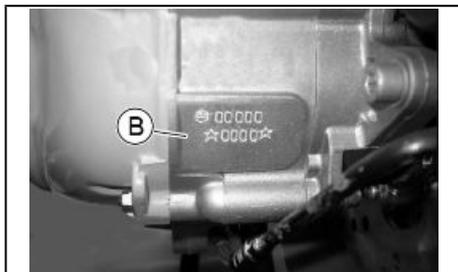
With the key set to «OFF» or «ON», or with engine on, it is possible to electrically open the saddle by pressing button «C». If the electric opening does not work, use the emergency lever "A". When the key is set to «LOCK» the saddle cannot be opened.



01\_22



01\_23



01\_24

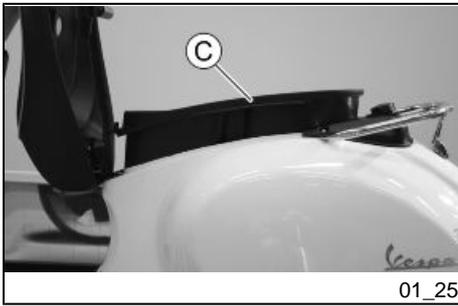
### Identification (01\_23, 01\_24, 01\_25)

The identification registration numbers consist of a prefix followed by a number stamped on both the chassis «A» and the engine «B». These numbers must always be indicated on spare parts requests. To read the chassis number, lift the saddle and remove the helmet compartment «C». We recommend checking that the chassis registration number stamped on the vehicle corresponds with that on the vehicle documentation.

#### CAUTION



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



### Rear top box opening (01\_26)

Insert the key into the switch and press down until the glove compartment opens. If the switch is set to "LOCK", turn the key to "OFF" or "ON" before pressing it down.



### Bag clip (01\_27)

To use the retractable bag hook «**B**» mounted on the leg shield back plate, pull it slightly towards the back of the vehicle.



01\_27



# Vespa GTS 300 i.e. - Vespa GTS 300 i.e. ABS



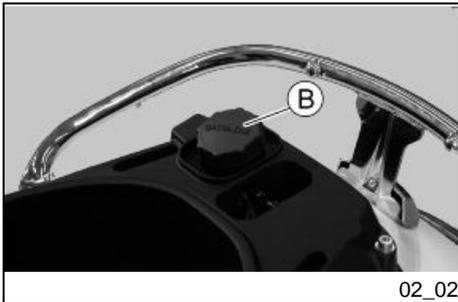
**Chap. 02**  
**Use**



## Checks (02\_01)

Before using the vehicle, check:

1. That the fuel tank is full.
2. The correct fluid level for front and rear brakes.
3. That the tyres are properly inflated.
4. The correct functioning of side lights, headlamp, turn indicators, stop light and license plate light.
5. The correct functioning of front and rear brakes.
6. The oil level in the in the gearcase.
7. The engine oil level.
8. The coolant level.



## Refuelling (02\_02, 02\_03)

Fuel: lift the saddle and unscrew the cap «B». Prescribed fuel: Minimum 95 octane unleaded petrol. The reserve fuel level is indicated by the warning light «F».

### WARNING



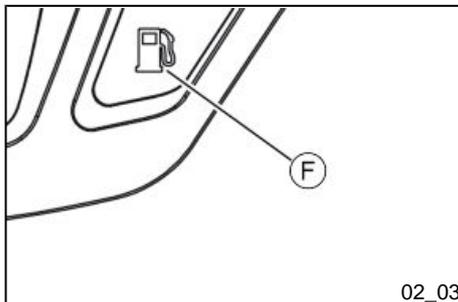
**SWITCH OFF THE ENGINE BEFORE REFUELLING WITH PETROL.**

**PETROL IS HIGHLY INFLAMMABLE.**

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

**DO NOT INHALE FUEL FUMES.**

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

**CAUTION**

**ALWAYS USE PETROL WITH A MAXIMUM OF 10% BIOETHANOL CONTENT (E10).**

**DO NOT USE PETROL WITH AN ETHANOL CONTENT HIGHER THAN 10%; THIS USE COULD DAMAGE THE FUEL SYSTEM COMPONENTS AND/OR COMPROMISE ENGINE PERFORMANCE.**

**CAUTION**

**PETROL DAMAGES THE PLASTIC PARTS OF THE BODYWORK.**

**CAUTION**

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

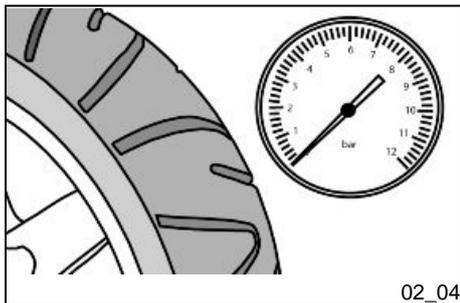
**CAUTION**

**DO NOT LET THE GASOLINE RUN OUT; IF THIS SHOULD HAPPEN, DO NOT CONTINUALLY TRY TO START THE MACHINE, MOVE THE IGNITION SWITCH TO «OFF» AND REFILL THE TANK WITH GASOLINE AS SOON AS POSSIBLE. IF YOU DO NOT DO THIS, YOU COULD DAMAGE THE FUEL PUMP AND/OR THE CATALYTIC CONVERTER.**

## FUEL TANK CAPACITY

Fuel tank capacity

9.5 ± 0.5 l



## **Tyre pressure (02\_04)**

Check tyre pressure and wear periodically as indicated in the scheduled maintenance table. 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 sides or irregular tread wear; if this occurs, go to an authorised workshop or at least to a workshop equipped to replace tyres.

### **CAUTION**



**TIRE PRESSURE SHOULD BE CHECKED WHEN TIRES ARE COLD. INCORRECT TIRE PRESSURE CAUSES ABNORMAL TIRE WEAR AND MAKES RIDING DANGEROUS.**

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

### **CAUTION**

**DUE TO THE PRESENCE OF ABS TONE WHEELS (IF PROVIDED) IT IS NECESSARY TO REPLACE THE TYRES AT AN AUTHORIZED SERVICE NETWORK CENTRE.**

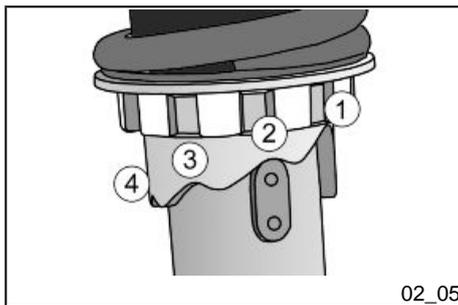
## TYRES

Front tyre

120/70 - 12" 51P Tubeless

## TYRE INFLATION PRESSURE

Front tyre pressure (with passenger)	1.8 bar (-)
Rear tyre pressure (with passenger)	2.0 bar (2.2 bar)



02\_05

### Shock absorbers adjustment (02\_05, 02\_06)

The spring preload is adjustable into 4 different settings by turning the adjuster ring on the bottom of the shock absorbers with a specific wrench for shock absorbers.

**Position 1:** minimum pre-load: rider only

**Position 2:** medium preloading: rider only

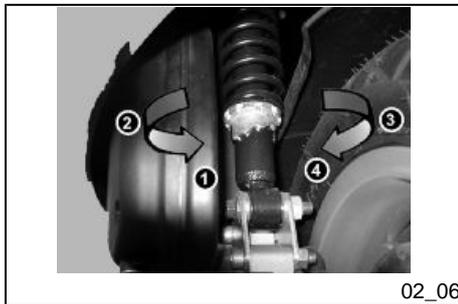
**Position 3:** medium preloading: rider and passenger

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

#### 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**

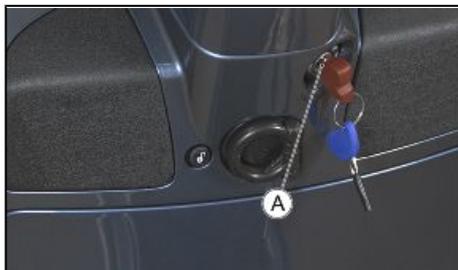
**WE RECOMMEND WEARING GLOVES WHILE CARRYING OUT THIS OPERATION IN ORDER TO AVOID INJURIES.**

**WARNING**

**IT IS ABSOLUTELY FORBIDDEN TO ADJUST THE PRELOAD DIFFERENTLY ON THE TWO SHOCK ABSORBERS**

**Running in****WARNING**

**DURING THE FIRST 1,000 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 1,000 KM, GRADUALLY INCREASE SPEED UNTIL REACHING THE MAXIMUM PERFORMANCE.**

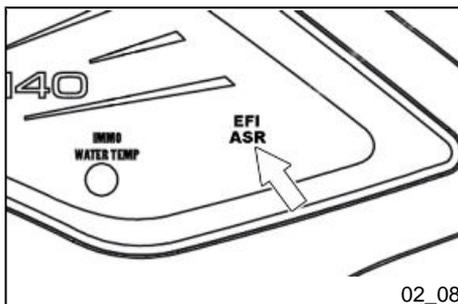


02\_07

## Starting up the engine (02\_07, 02\_08, 02\_09)

To start the engine it is necessary, before pressing the starter button, to pull and keep pulled the front or rear brake lever, which activates the appropriate switch allowing start-up.

1. Rest the vehicle on its centre stand, ensuring the rear wheel is not touching the ground.
2. Hold the throttle grip «E» in the idle position.
3. Insert the key into the ignition switch «A» and turn it to «ON».
4. Make sure that the «B» switch is set to «RUN».
5. Wait for the engine control warning light to turn off.
6. Pull and hold the front «C» or rear brake lever, then press the electric starter button «D».



02\_08

### WARNING

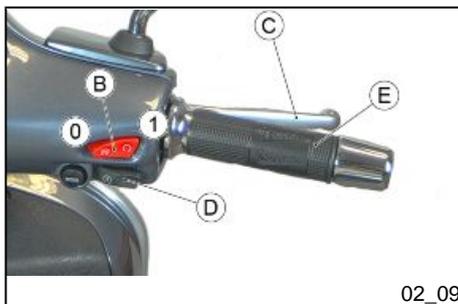


**THE AUTOMATIC TRANSMISSION MAKES THE REAR WHEEL TURN EVEN WHEN THE THROTTLE IS SLIGHTLY TWISTED. RELEASE THE BRAKE CAREFULLY AFTER STARTING, AND THEN ACCELERATE GRADUALLY.**

### CAUTION



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



02\_09

## CAUTION

WHEN THE WARNING LIGHT FLASHES WITH A FREQUENCY OF 1 FLASH PER SECOND (1 HZ), THERE IS AN ENGINE MALFUNCTION. SHOULD THIS HAPPEN, CONTACT AN AUTHORISED SERVICE CENTRE.

## 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 OVER-REVVING, THE REVOLUTION LIMITER WILL BE ACTIVATED IF THE ENGINE SPEED EXCEEDS THE ESTABLISHED THRESHOLD.

### WARNING



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

## Difficult start up

Carefully follow the procedure described in section «**Engine start-up**».

**WARNING**

THE THROTTLE GRIP MUST REMAIN IN THE MINIMUM POSITION, BECAUSE ANY OTHER POSITION INHIBITS THE VEHICLE STARTER.

**CAUTION**

IF NECESSARY, CONTACT AN AUTHORISED SERVICE CENTRE.

**Stopping the engine (02\_10, 02\_11)**

Fully untwist the throttle grip and then turn the switch key «A» to «OFF» (extractable key), or turn the switch «B» to «OFF».

**CAUTION**

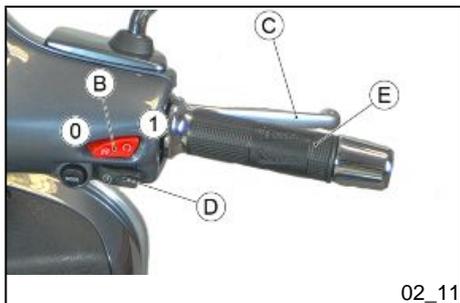
DUE TO THE HIGH TEMPERATURES THE CATALYTIC CONVERTER CAN REACH, ALWAYS TAKE CARE, WHEN PARKING THE VEHICLE, THAT THE SILENCER DOES NOT COME INTO CONTACT WITH FLAMMABLE MATERIALS, TO AVOID SERIOUS BURNS.

**CAUTION**

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



02\_10



02\_11



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.

### SIDE STAND

With your foot push the projection of the stand «L » in order to open it and at the same time lean the vehicle on you.



02\_13

## Automatic transmission (02\_13)

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 driving on both flat roads and uphill.

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

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

Take 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 (02\_14)

### WARNING



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

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

### **ALWAYS RIDE WITHIN YOUR LIMITS**

1. Before riding off, remember to put the helmet on and fasten it correctly.
2. Reduce speed on rough roads and ride with caution.
3. Remember that after riding on a long stretch of wet road without using the brakes, braking can be poor at the beginning. Under these conditions, it is a good idea to operate the brakes from time to time.
4. Do not brake hard on wet, unsurfaced or slippery roads.
5. If you have to brake, use both brakes in order to spread the braking action between both wheels.



6. Avoid riding off by mounting the scooter when it is resting on its support. In any case, the rear wheel should not be turning when it comes into contact with the ground, in order to avoid abrupt departures.

7. If the vehicle is used on roads covered with sand, mud, snow mixed with salt, etc., clean brake discs frequently with a mild detergent in order to avoid the formation of abrasive substances in the holes, which could result in early wear of the brake pads.

8. Remember that any change that modifies the vehicle's performance, such as tampering with original structural parts, renders the vehicle not conforming to the approved type and therefore dangerous to ride.

**CAUTION**

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

**CAUTION**

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



### Rear rack (02\_15, 02\_16, 02\_17)

The «GTS 300ie Super» and «GTS 300ie SuperSport» versions are equipped with rear luggage carrier handles «1» shown in photo.



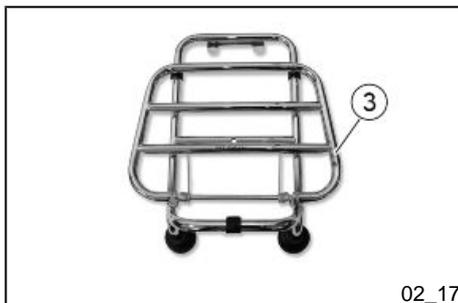
The «GTS 300ie» and «GTS 300ie Touring» versions are equipped with rear luggage carriers «2» shown in photo.

During use of the vehicle without a load on the rear luggage carriers, it is recommended to position the retainer hook «A» as shown in photo.

#### WARNING



**Maximum admissible load: 6 kg**



The «GTS 300ie Touring» version is equipped with front luggage carriers «3», as well as the rear ones «2» indicated above.

#### WARNING



**Front luggage carrier maximum admissible load: 4 kg**



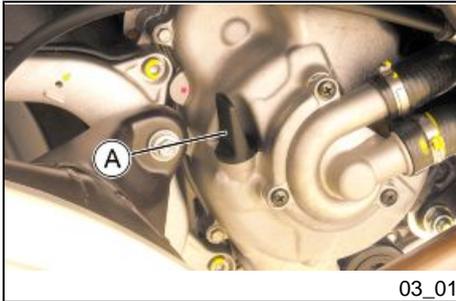
# Vespa GTS 300 i.e. - Vespa GTS 300 i.e. ABS



**Chap. 03  
Maintenance**

## Engine oil level

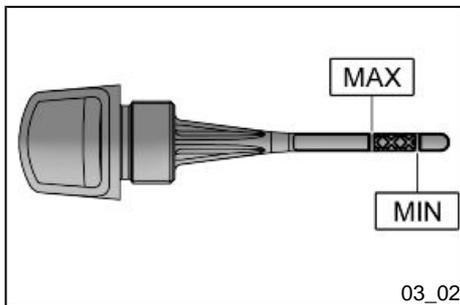
Four stroke engine oil is used in the engines in order to lubricate the timing bodies, the bench bearings and the head-engine block-piston assembly. **An insufficient quantity of oil can seriously damage the engine.** In all four-stroke engines, a loss of efficiency in oil performance and certain consumption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



### Engine oil level check (03\_01, 03\_02)

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

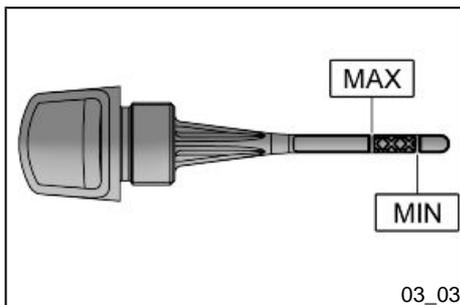
If the check is carried out after the vehicle has been used, and therefore with a hot engine, the level will be lower; in order to carry out a correct check, wait at least 10 minutes after the engine has been stopped so as to get the correct level.



### ENGINE OIL CAPACITY

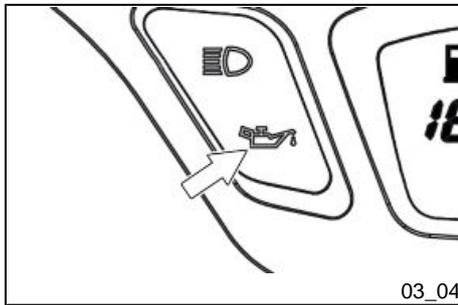
Engine oil

1.3 l



### Engine oil top-up (03\_03)

The oil should be topped up after having checked the level and in any case by adding oil **without ever exceeding the MAX. level**. Take your vehicle to an **Authorised Service Centre** to have the engine oil checked and if necessary, topped-up as indicated in the scheduled maintenance table.



## Warning light (insufficient oil pressure) (03\_04)

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

## Engine oil change

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

### CAUTION



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

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

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

### CAUTION



**USED OILS CONTAIN SUBSTANCES HARMFUL TO THE ENVIRONMENT. FOR OIL REPLACEMENT, CONTACT AN AUTHORISED SERVICE CENTRE WHICH IS**

EQUIPPED TO DISPOSE OF USED OILS IN AN ENVIRONMENTALLY FRIENDLY AND LEGAL WAY.

### Recommended products

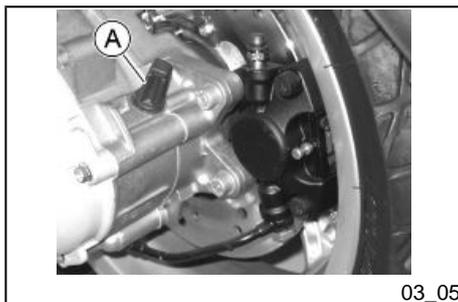
**eni i-Ride PG 5W-40**

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

## ENGINE OIL CAPACITY

Engine oil

1.3 l



03\_05

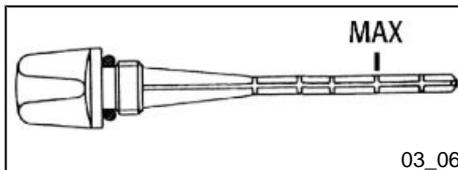
### **Hub oil level (03\_05, 03\_06)**

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 rest it on its stand.
- 2) Unscrew dipstick «A», wipe it clean with a cloth, reinsert it and **tighten completely**.
- 3) Pull out the dipstick and check that the oil level is above the first notch from the bottom.
- 4) Reinsert the dipstick and ensure that it is tightened correctly.

#### **N.B.**

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



03\_06

**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 OIL CAN HARM THE ENVIRONMENT. COLLECTION AND DISPOSAL SHOULD BE CARRIED OUT IN COMPLIANCE WITH REGULATIONS IN FORCE.**

**CAUTION**



**AN EXCESSIVE QUANTITY OF OIL CAN LEAD TO SPILL OVER, WHICH MAY CAUSE THE ENGINE AND THE WHEEL TO GET DIRTY.**

**CAUTION**



**WHEN REPLACING THE HUB OIL DO NOT LET THE OIL COME INTO CONTACT WITH THE REAR BRAKE DISC.**

**CAUTION**



**FOR OIL REPLACEMENT, CONTACT ANY AUTHORISED SERVICE CENTRE AS THEY ARE EQUIPPED TO DISPOSE OF USED OILS IN AN ENVIRONMENTALLY FRIENDLY AND LEGAL WAY.**

## Recommended products

### **AGIP GEAR SAE 80W-90**

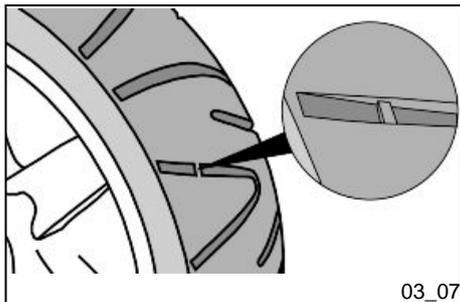
*Lubricant for gearboxes and transmissions.*

API GL-4

## Characteristic

### **Rear hub oil**

250 cm<sup>3</sup>



## **Tyres (03\_07)**

Check tyre pressure and wear periodically as indicated in the scheduled maintenance table. 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 sides or irregular tread wear; if this occurs, go to an authorised workshop or at least to a workshop equipped to replace tyres.

### **CAUTION**



**TIRE PRESSURE SHOULD BE CHECKED WHEN TIRES ARE COLD. INCORRECT TIRE PRESSURE CAUSES ABNORMAL TIRE WEAR AND MAKES RIDING DANGEROUS.**

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

## CAUTION

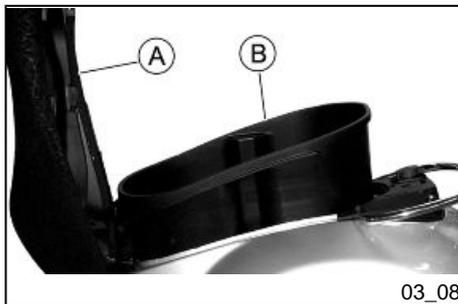
DUE TO THE PRESENCE OF ABS TONE WHEELS (IF PROVIDED) IT IS NECESSARY TO REPLACE THE TYRES AT AN AUTHORIZED SERVICE NETWORK CENTRE.

### TYRES

Front tyre	120/70 - 12" 51P Tubeless
Rear tyre	Tubeless 130/70 - 12" 62P

### TYRE INFLATION PRESSURE

Front tyre pressure (with passenger)	1.8 bar (-)
Rear tyre pressure (with passenger)	2.0 bar (2.2 bar)



03\_08

## Spark plug dismantlement (03\_08, 03\_09)

Proceed as follows:

1. Lift the saddle «A».
2. Lift the helmet compartment «B» and access the spark plug by reaching in with your hand.
3. Disconnect the HV spark plug cable cap «C».
4. Undo the spark plug using the specific spark plug spanner.
5. When refitting, place the spark plug into the hole at the required angle and finger tighten it as far as it will go.
6. Use the wrench only to tighten it.
7. Fit the cap on the spark plug as far as it will go.

### CAUTION



**SPARK PLUGS MUST BE REMOVED WHEN THE ENGINE IS COLD. SPARK PLUGS MAINTENANCE OPERATIONS ARE DESCRIBED IN THE SCHEDULED MAINTENANCE TABLE. USING NON-CONFORMING ELECTRONIC CENTRAL UNITS AND ELECTRONIC IGNITIONS OR SPARK PLUGS OTHER THAN THOSE PRESCRIBED MAY SERIOUSLY DAMAGE THE ENGINE.**

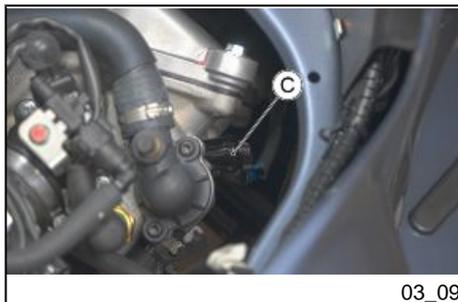
### N.B.

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

### Electric characteristic

#### Spark plug

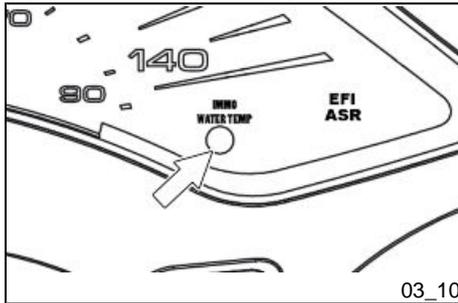
NGK CR8EKB



03\_09

## Removing the air filter

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



## Cooling fluid level (03\_10, 03\_11, 03\_12, 03\_13)

Engine cooling is carried out by a forced-circulation coolant system. The cooling circuit holds 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 the proper functioning of the engine it is necessary for the coolant temperature to be maintained at about 90°C (indicator at mid-scale of instrument, approximately).

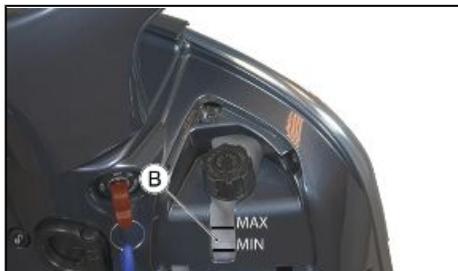
With engine on, in case of excessive engine temperature, the corresponding warning light on the instrument panel turns on; let the engine cool down and check the fluid level; if the level is OK, contact an **Authorised Service Centre**.



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

1. Rest the vehicle upright on the stand and remove the screw «A» of the expansion tank cap shown in the photograph.
2. Check the fluid level that should always be between the «MIN» and «MAX» level «B» on the tank.
4. If the coolant level is near the minimum mark, top-up when the engine is cold.

If the coolant needs to be topped up frequently or the expansion tank is completely dry, check the cooling system to find the cause of the problem. 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.



03\_12

**WARNING**

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

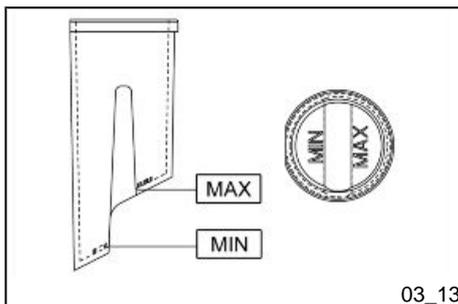
**WARNING**

TO PREVENT AVOID HARMFUL FLUID LEAKAGE WHILE RIDING, ENSURE THAT THE LEVEL NEVER EXCEEDS THE MAXIMUM VALUE.

TO ENSURE CORRECT ENGINE OPERATION, KEEP THE RADIATOR GRILLE CLEAN.

**Recommended products****AGIP PERMANENT SPECIAL**

*Ethylene glycol antifreeze liquid with organic inhibition additives. Red, ready to use.*  
ASTM D 3306 - ASTM D 4656 - ASTM D 4985 - CUNA NC 956-16

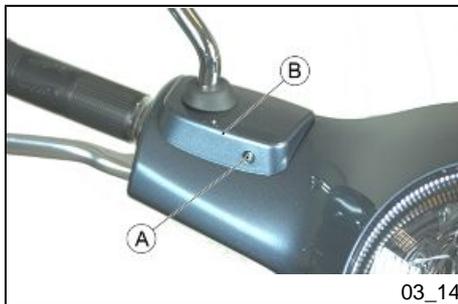


03\_13

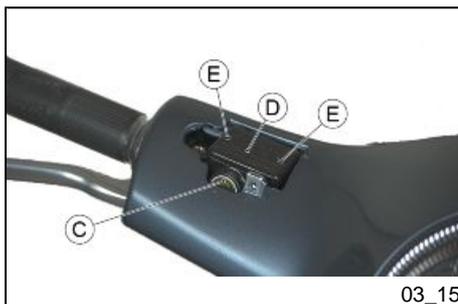
**COOLING SYSTEM CAPACITY**

Cooling system fluid

~ 2 l



03\_14



03\_15

## Checking the brake oil level (03\_14, 03\_15)

The brake fluid reservoirs are located on the pumps under the handlebar cover (front on the right-hand side, rear on the left-hand side). The procedures to check the brake fluid level for the front and rear brakes are identical.

Proceed as follows:

1. rest the scooter on its centre stand and make sure the handlebar is centred;
2. check fluid level through the corresponding warning light «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. Proceed as follows:

3. remove the tank cover «D» loosening the two screws «E» and refill reaching the correct level with the prescribed brake fluid type only and without exceeding the maximum level.

Under normal climatic conditions, the brake fluid should be changed every 2 years. This operation must be carried out by trained personnel; take your vehicle to an **authorised Service centre or Dealer**.

### WARNING



**ONLY USE DOT 4-CLASSIFIED BRAKE FLUID. BRAKE CIRCUIT FLUID IS VERY 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 ACCIDENTAL CONTACT, RINSE WITH WATER. THE FLUID IN THE BRAKING CIRCUIT IS HYGROSCOPIC, THAT IS, IT ABSORBS MOISTURE FROM THE SURROUNDING AIR. IF MOISTURE CONTAINED IN THE BRAKE FLUID EX-**

CEEDS A CERTAIN VALUE, THIS WILL RESULT IN INEFFICIENT BRAKING. NEVER USE BRAKE LIQUID FROM OPEN OR PARTIALLY USED CONTAINERS.

### Recommended products

#### AGIP BRAKE 4

*Brake fluid.*

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

### Battery (03\_16, 03\_17)

To reach the battery «D », proceed as follows:

1. rest the scooter on its centre stand;
2. unscrew the 4 screws «A», remove the footrest «B».
3. remove the two battery fixing screws «C».

#### WARNING



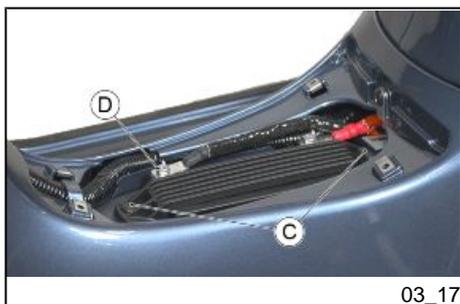
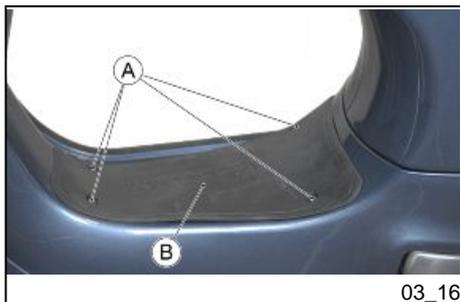
IN ORDER TO AVOID DAMAGING THE ELECTRIC SYSTEM, NEVER DISCONNECT THE WIRING WHILE THE ENGINE IS RUNNING.

#### CAUTION

UPON CONNECTING THE BATTERY TERMINALS, AVOID CONTACT WITH THE METAL BODY

#### WARNING

DO NOT TRY TO REMOVE THE BATTERY SEAL. THE ELECTROLYTE IN THE BATTERY 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



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

#### Characteristic

##### Battery

12V-10Ah

#### Use of a new battery

Ensure that the terminals are connected correctly and check voltage.

#### CAUTION



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

#### WARNING



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

## Long periods of inactivity

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

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

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

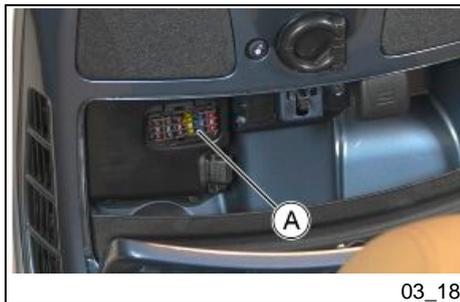
### N.B.

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

### WARNING



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



03\_18



03\_19

**WARNING**

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

**Fuses (03\_18, 03\_19, 03\_20, 03\_21, 03\_22)**

The electrical system is equipped with:

1. six protection fuses «A» located in the glove compartment to the left.
2. of a fuse «B», located in the battery compartment.

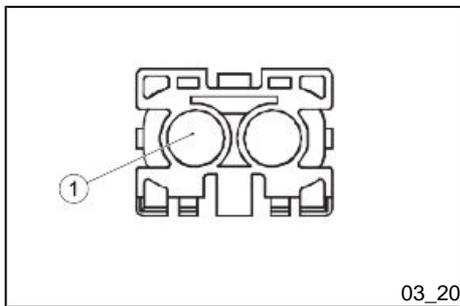
The chart shows the position and specifications of the fuses in the vehicle.

**CAUTION**

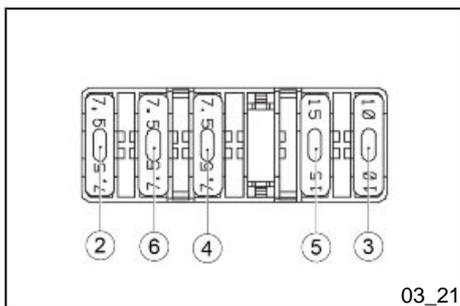
**BEFORE REPLACING THE BLOWN FUSE, TRY TO ELIMINATE THE FAULT THAT HAS CAUSED IT TO BLOW. NEVER TRY TO REPLACE A FUSE USING DIFFERENT MATERIAL (FOR EXAMPLE A PIECE OF ELECTRIC WIRE).**

**CAUTION**

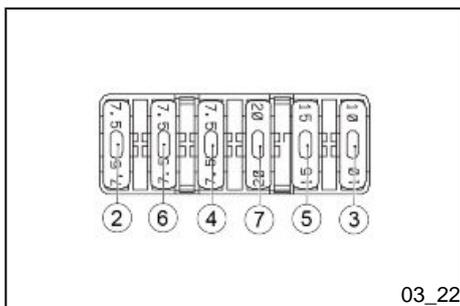
**MODIFICATIONS OR REPAIRS TO THE ELECTRICAL SYSTEM, PERFORMED INCORRECTLY OR WITHOUT STRICT ATTENTION TO THE TECHNICAL SPECIFICATIONS OF THE SYSTEM CAN CAUSE MALFUNCTIONING AND RISK OF FIRE.**



Fuse «B».



Fuses «A».



Fuses «A» ABS version

## **FUSE «B»**

Fuse no. 1	<b>Capacity:</b> 30 A <b>Protected circuits:</b> System general.
------------	---

## **FUSES «A»**

Fuse no. 2	<b>Capacity:</b> 7.5 A <b>Protected circuits:</b> Inclination sensor, starter button, control unit, immobilizer aerial.
------------	--

Fuse No. 3	<b>Capacity:</b> 10 A <b>Protected circuits:</b> Control unit.
------------	---

Fuse No. 4	<b>Capacity:</b> 7.5 A <b>Protected circuits:</b> Pre-installation for anti-theft device, turn indicators, horn, lights relay, stop lights, USB socket.
------------	--

Fuse No. 5	<b>Capacity:</b> 15 A <b>Protected circuits:</b> Front headlight, electric fan, Pre-installation for anti-theft device, instrument panel, ignition switch.
------------	---

Fuse No. 6	<b>Capacity:</b> 7.5 A
------------	------------------------

**Protected circuits:** Taillight, instrument panel, front turn indicators.

### **FUSES «A» ABS VERSION**

Fuse no. 2

**Capacity:** 7.5 A

**Protected circuits:** Inclination sensor, starter button, control unit, immobilizer aerial, ABS control unit.

Fuse No. 3

**Capacity:** 10 A

**Protected circuits:** Control unit.

Fuse No. 4

**Capacity:** 7.5 A

**Protected circuits:** Pre-installation for anti-theft device, turn indicators, horn, lights relay, stop lights, USB socket.

Fuse No. 5

**Capacity:** 15 A

**Protected circuits:** Front headlight, electric fan, Pre-installation for anti-theft device, instrument panel, ignition switch.

Fuse No. 6

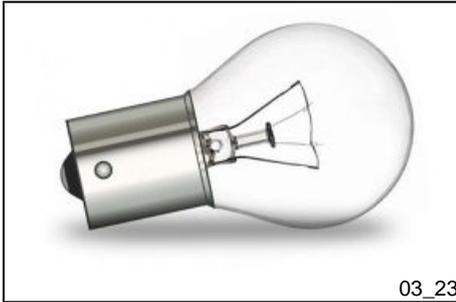
**Capacity:** 7.5 A

**Protected circuits:** Taillight, instrument panel, front turn indicators.

Fuse No. 7

**Capacity:** 20 A

**Protected circuits:** ABS control unit.



03\_23

## Lamps (03\_23)

In this section are listed the bulb types for the vehicle fitting.

## BULBS

High/low beam light bulb

**Type:** Halogen (H4)

**Power:** 12V - 55W/60W

**Quantity:** 1

Front daylight running lights

**Type:** LED

**Power:** -

**Quantity:** 2

Front and rear turn indicator bulbs **Type:** Capless

**Power:** 12V - 6W

**Quantity:** 4

Rear tail light bulb

**Type:** Capless

**Power:** 12V - 5W

**Quantity:** 1

Stop light bulb

**Type:** Capless

**Power:** 12V - 16W

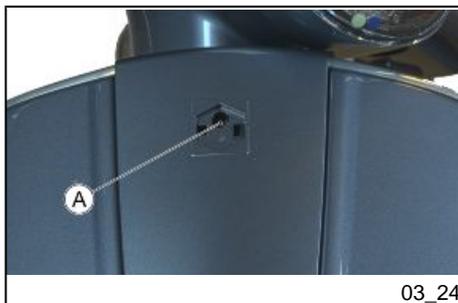
**Quantity:** 1

Licence plate light bulb

**Type:** Capless

**Power:** 12V - 5W

**Quantity:** 1

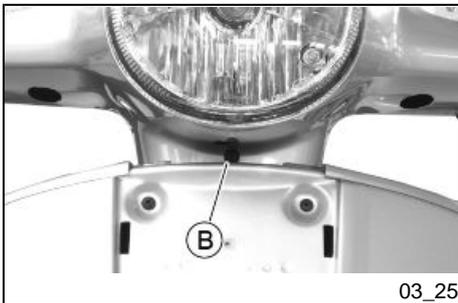


03\_24

### Front light group (03\_24, 03\_25, 03\_26, 03\_27)

To remove the front headlight assembly, proceed as follows:

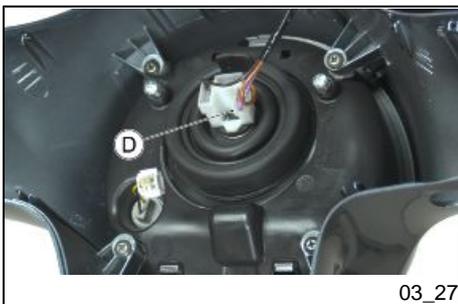
1. Remove the rear-view mirrors.
2. Remove the screw «A» of the front shield grille.
3. Remove the fixing screws «B» of the front handlebar cover.
4. Remove the fixing screws «C» of the rear handlebar cover.
5. Remove the front handlebar cover.



03\_25



03\_26



03\_27

This gives access to the bulbs. Turn the clip and take out the bulb of the high-beam/low-beam headlamp «D».

To reassemble, repeat the operation but in reverse order.

#### WARNING



**THE TWIN-FILAMENT (HIGH-BEAM AND LOW-BEAM) BULB IS HALOGEN: DO NOT TOUCH THE BULB WITH YOUR FINGERS TO AVOID COMPROMISING ITS FUNCTIONING**

#### N.B.

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

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

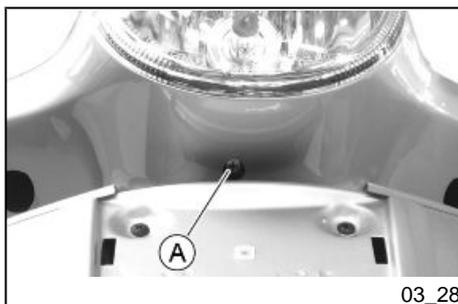
**THE PRESENCE OF DROPS OF WATER, ON THE OTHER HAND, COULD INDICATE THAT WATER IS INFILTRATING. CONTACT THE AFTER-SALES SERVICE NETWORK.**

**CAUTION**

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

**FRONT HEADLIGHT ASSEMBLY BULBS**

High/low beam light bulb

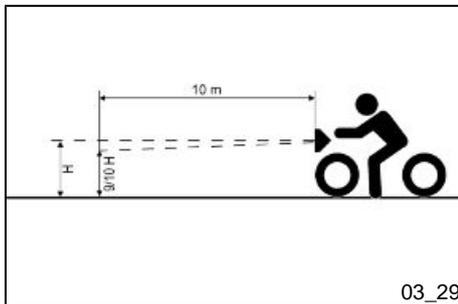
**Type:** Halogen (H4)**Power:** 12V - 55W/60W**Quantity:** 1**Head light adjustment (03\_28, 03\_29)**

Proceed as follows:

1. Position the vehicle 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 that the longitudinal axis of the vehicle is perpendicular to the screen;
2. Turn on the headlight and check that the boundary of the light beam projected onto the screen is not higher than 9/10 or lower than 7/10 of the distance between the centre of the headlight and the ground;
3. Otherwise, adjust the right headlight with screw «A».

**N.B.**

**THE ABOVE PROCEDURE COMPLIES WITH THE EUROPEAN STANDARDS REGARDING MAXIMUM AND MINIMUM HEIGHT OF LIGHT BEAMS. REFER TO THE**



**STATUTORY REGULATIONS IN FORCE IN EVERY COUNTRY WHERE THE VEHICLE IS USED.**



### Front direction indicators (03\_30)

To replace the front turn indicator bulbs, remove the tail light taking out the retaining screw "A", remove the bulb holder from its fitting; gently turn the bulb around 30° and remove it. Follow the process in reverse order to refit.

Integrated in the front turn indicators are the daylight running lights of «LED» type. In the event of malfunction, we recommend contacting an **Authorised Service Centre** for replacement.

## **BULBS**

Front and rear turn indicator bulbs **Type:** Capless  
**Power:** 12V - 6W  
**Quantity:** 4

Front daylight running lights **Type:** LED

Power: -

Quantity: 2



### Rear optical unit (03\_31)

Remove screw «A» to remove the rear headlight assembly.

Access to taillight bulbs, stop light bulb and license plate bulb.

To reassemble, repeat the operation but in reverse order.

#### **N.B.**

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

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

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

#### **N.B.**

**CHECK THE PRESENCE OF THE REAR REFLECTOR IN THE VERSIONS WHERE AVAILABLE.**

## **REAR LIGHT UNIT BULBS**

Rear tail light bulb

**Type:** Capless

**Power:** 12V - 5W

**Quantity:** 1

Stop light bulb

**Type:** Capless

**Power:** 12V - 16W

**Quantity:** 1

Licence plate light bulb

**Type:** Capless

**Power:** 12V - 5W

**Quantity:** 1



### Rear turn indicators (03\_32)

To gain access to the turn indicator bulbs, remove the fastening screws «E».

The bulbs have a bayonet coupling, to remove them press gently and twist anticlockwise about 30°. To refit follow the same steps but in reverse order.

## **BULBS**

Front and rear turn indicator bulbs **Type:** Capless

**Power:** 12V - 6W

Quantity: 4

## Rear-view mirrors

Adjust the mirrors by applying slight pressure to the side of the mirror to move it to the desired position.

## Front and rear disc brake (03\_33, 03\_34)

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

### CAUTION



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

### CAUTION



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



03\_33



03\_34

THE PLUNGERS TO SETTLE AND THE LEVER STROKE TO BE SET TO THE CORRECT POSITION.

#### CAUTION

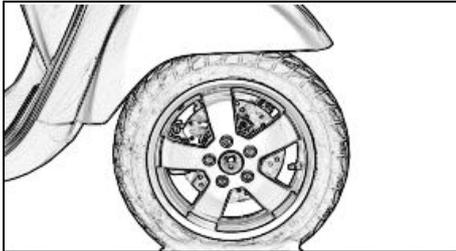


THE PRESENCE OF SAND, MUD, SNOW MIXED WITH SALT, ETC. ON THE ROAD, CAN DRASTICALLY REDUCE THE LIFE OF THE BRAKE PADS. IN ORDER TO AVOID THIS, WE RECOMMEND WASHING THE VEHICLE FREQUENTLY WHEN RIDING IN THESE ROAD CONDITIONS.

#### CAUTION

DUE TO THE PRESENCE OF ABS TONE WHEELS (IF PROVIDED) IT IS NECESSARY TO REPLACE THE TYRES AT AN AUTHORIZED SERVICE NETWORK CENTRE.

### Puncture (03\_35)



03\_35

The vehicle is equipped with Tubeless tyres (without inner tube). In the event of a puncture, Tubeless tyres - unlike tyres with inner tubes - go flat very slowly, resulting in a greater steering safety. In the event of a puncture, an emergency repair can be carried out 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 CAN PROPERLY, FOLLOW THE INSTRUCTIONS ON THE PACKAGING.

**WARNING**

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

**Inactivity of the vehicle (03\_36)**

The following operations are recommended:

1. Clean the scooter thoroughly and then cover it with a canvas;
2. With the engine off, remove the spark plug and pour 1 - 2 cm<sup>3</sup> of oil through its hole. 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 (so that the fuel pump is fully covered)**; spread antirust grease on the uncoated 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****eni i-Ride PG 5W-40**

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



03\_36

## Cleaning the vehicle

Use a low pressure water jet in order to soften the dirt and mud deposited on painted surfaces. Once softened, mud and dirt must be removed with a soft sponge for body-work soaked with water and shampoo (2-4% of shampoo in water). Then rinse abundantly with water, and dry with a shammy cloth. Any polishing with silicon wax must always be preceded by washing

### WARNING



**IF THE SCOOTER IS USED ON DUSTY ROADS IT IS NECESSARY TO SERVICE THE TRANSMISSION COVER FILTER SPONGE MORE FREQUENTLY.**

### CAUTION



**WASHING COMPOUNDS COULD POLLUTE THE WATER. THE VEHICLE MUST BE WASHED AT A WASHING FACILITY WITH EQUIPMENT FOR PURIFYING THE WASHING WATER.**

### 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 FAN SPRAY JETS.
- DO NOT PLACE THE WATER JET NOZZLE CLOSER THAN 60 CM.
- DO NOT USE WATER AT TEMPERATURES OVER 40°C.
- DO NOT USE HIGH-PRESSURE WATER JETS. •

**DO NOT STEAM WASH.**

- **DO NOT DIRECT THE JET STRAIGHT TO THE WIRING AND COOLING SLIT ON THE TRANSMISSION COVER.**

**WARNING**



**NEVER WASH THE SCOOTER IN DIRECT SUNLIGHT, ESPECIALLY DURING SUMMER WHEN THE BODYWORK IS STILL HOT, AS THE SHAMPOO CAN DAMAGE THE PAINTWORK IF IT DRIES BEFORE BEING RINSED OFF. NEVER USE CLOTHS SOAKED IN PETROL, DIESEL OIL OR KEROSENE FOR CLEANING THE PAINTED OR PLASTIC SURFACES SO AS NOT TO DAMAGE THE LUSTRE FINISH OR ALTER THE MECHANICAL PROPERTIES.**

**WARNING**



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

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

**WARNING**



- **Prevent deposits from remaining on the bodywork, industrial and pollutant residual dust, tar spots, dead insects, bird droppings, etc.**

- Do not park the vehicle under the trees. In some seasons, in fact, residues, resins, fruits or leaves may fall from the trees, containing chemicals that are harmful to the paintwork.

### **STARTING FAILURE**

Emergency switch in «OFF»	Set the switch back to «ON»
Fuse blown	Replace the blown fuse and have the vehicle checked by an <b>Authorised Service Centre.</b>

### **IGNITION PROBLEMS**

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

### **LACK OF COMPRESSION**

Loose spark plug	Screw in the spark plug tightly
Cylinder head loose, piston gas rings worn	Contact an <b>Authorised Service Centre.</b>
Valve stuck	Contact an <b>Authorised Service Centre.</b>

### **HIGH CONSUMPTION AND LOW PERFORMANCE**

Air filter blocked or dirty	Contact an <b>Authorised Service Centre.</b>
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### **INSUFFICIENT BRAKING**

Greasy disc. Worn pads. Faulty braking system. Presence of air in the front and rear brake circuit	Contact an <b>Authorised Service Centre.</b>
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### **INEFFICIENT SUSPENSION**

Shock absorber fault, oil leak, end buffers damaged; shock absorber preloading incorrectly set	Contact an <b>Authorised Service Centre.</b>
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## AUTOMATIC TRANSMISSION PROBLEMS

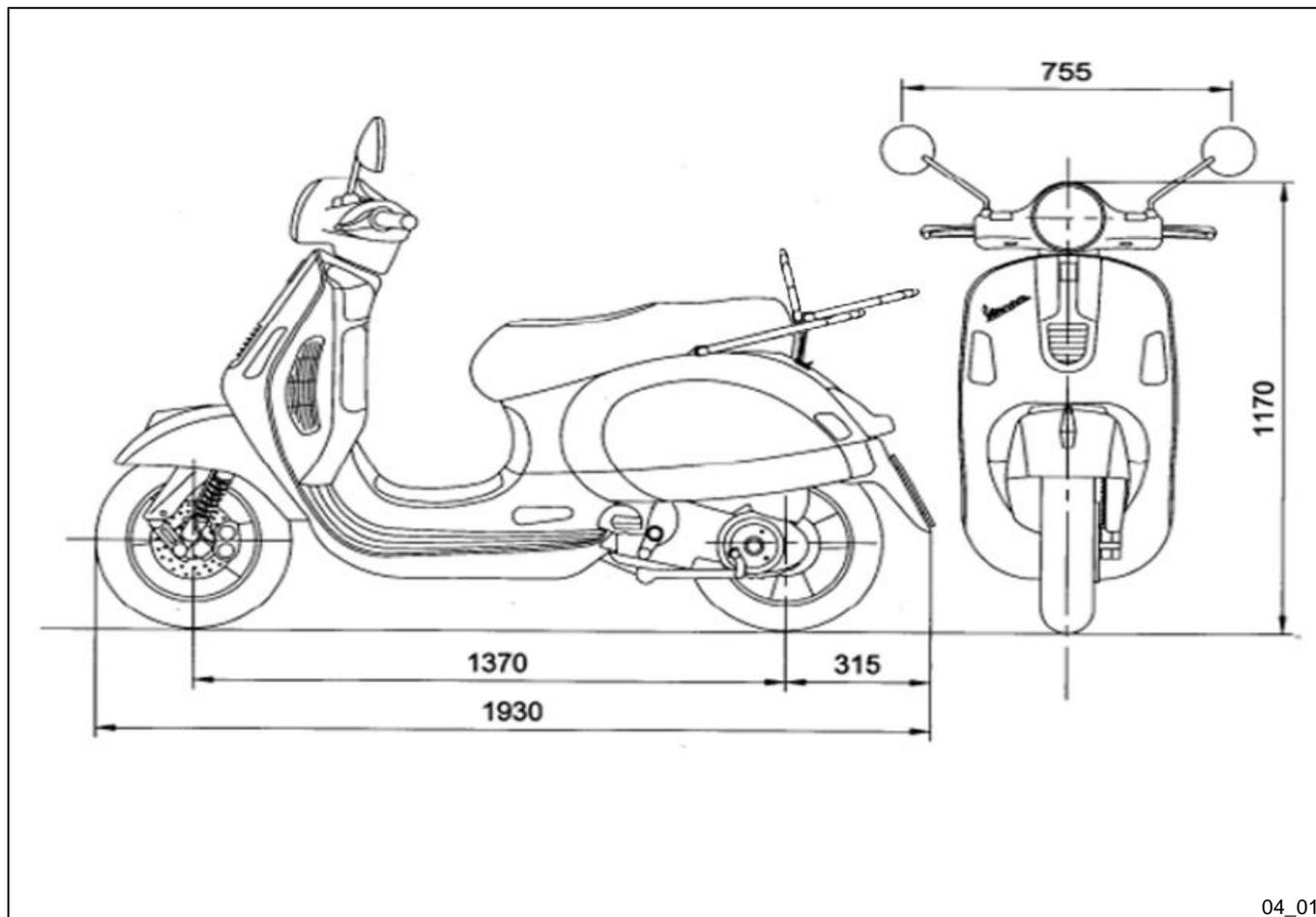
CVT rollers and/or drive belt  
damaged

Contact an **Authorised Service  
Centre.**

# Vespa GTS 300 i.e. - Vespa GTS 300 i.e. ABS



**Chap. 04**  
**Technical data**



## VEHICLE TECHNICAL DATA

Chassis	Stamped plate supporting body.
Front suspension	Single arm suspension (cantilever wheel) fitted with a dual-chamber hydraulic shock absorber with coaxial spring.
Rear suspension	Two double-acting shock absorbers, adjustable to four positions at preloading.
Front brake	Ø 220-mm disc brake with hydraulic control activated by handlebar right-side lever; Braking assisted by ABS system (where available).
Rear brake	Ø 220-mm disc brake with hydraulic control activated by handlebar left-side lever; Braking assisted by ABS system (where available).
Wheel rim type	Light alloy.
Front wheel rim	12" x 3.00
Rear wheel rim	12" x 3.00
Front tyre	120/70 - 12" 51P Tubeless
Rear tyre	Tubeless 130/70 - 12" 62P
Front tyre pressure (with passenger)	1.8 bar (-)

Rear tyre pressure (with passenger)	2.0 bar (2.2 bar)
Kerb weight	151 Kg (155 Kg with ABS/ASR)
Maximum weight limit	340 kg
Battery	12V-10Ah

### **ENGINE TECHNICAL DATA**

Type	Single-cylinder, 4-stroke
Engine capacity	278 cm <sup>3</sup>
Bore x Stroke	75x63 mm
Compression ratio	11 ± 0.5: 1
Engine idle speed	1,700 ± 100 rpm
Timing system	4 valves, single overhead camshaft, chain-driven.
Valve clearance (cold engine)	Intake: 0.10 mm Exhaust: 0.15 mm
MAX. power	15.8 kW at 7,500 rpm
MAX. torque	22.3 at 5,000 rpm
Transmission	CVT expandable pulley variator with torque server, V-belt, self-ventilating dry automatic centrifugal clutch and transmission housing with forced-circulation air cooling.
Final reduction gear	Gear reduction unit in oil bath.

Lubrication	Engine lubrication with lobe pump (inside crankcase), chain-driven, with double filter: mesh and paper.
Cooling	Forced coolant circulation system.
Starter	Electric starter
Ignition	Electronic inductive discharge ignition, high efficiency, with separate HV coil.
Ignition advance	$\alpha/N$ three-dimensional map managed by control unit
Spark plug	NGK CR8EKB
Alternative spark plug	-
Fuel system	Electronic injection with $\varnothing$ 32-mm throttle body and electric fuel pump.
Fuel	Unleaded petrol max E10 (95 RON)
Exhaust silencer	Absorption-type exhaust silencer with a 3-way catalytic converter and lambda probe.
Emissions compliance	EURO 3

### **CAPACITIES**

Engine oil	1.3 l
Transmission oil	250 cm <sup>3</sup>
Cooling system fluid	~ 2 l

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Fuel tank capacity

9.5 ± 0.5 l

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# Vespa GTS 300 i.e. - Vespa GTS 300 i.e. ABS



**Chap. 05**  
**Spare parts and**  
**accessories**



05\_01



05\_02

## Warnings (05\_01, 05\_02)

### 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 VEHICLE. THE USE OF NON-ORIGINAL SPARE PARTS RENDERS THE WARRANTY VOID.

### WARNING



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

**WARNING**

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

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

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

**WARNING**

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

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



# Vespa GTS 300 i.e. - Vespa GTS 300 i.e. ABS



**Chap. 06  
Scheduled  
maintenance**



## Scheduled servicing table (06\_01)

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

For this reason a series of checks and maintenance services has been prepared, available for purchase separately, listed together in the chart on the following page. It is a good idea to report small performance anomalies right away to an **Authorized Dealer or Service Center**, without waiting for the next scheduled service, so they can be repaired immediately.

It is necessary to have your vehicle serviced to the prescribed intervals of time, even if you have not reached the predicted mileage. Carrying out scheduled services on time is essential for the validity of your warranty. For any further information concerning Warranty procedures and 'Scheduled Maintenance', please refer to the 'Warranty Booklet'.

### SCHEDULED MAINTENANCE TABLE

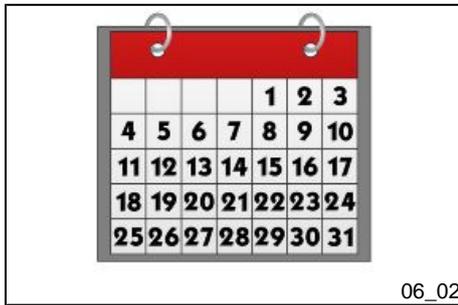
km x 1,000	1	5	10	15	20	25	30	35	40	45	50	55	60
Safety fasteners	I		I				I				I		I
Spark plug			R		R		R		R		R		R
Drive belt				R			R			R			R
Throttle control	A		A		A		A		A		A		A
Diagnosis by tool	I	I	I	I	I	I	I	I	I	I	I	I	I
Centre stand bracket spacer			L		L		L		L		L		L
Air filter			R		R		R		R		R		R
Belt compartment air filter			I		I		I		I		I		I
Oil filter	R		R		R		R		R		R		R

km x 1,000	1	5	10	15	20	25	30	35	40	45	50	55	60
Valve clearance					A				A				A
Electrical system and battery	I		I		I		I		I		I		I
Coolant *	I		I		I		I		I		I		I
Brake fluid *	I		I		I		I		I		I		I
Engine oil	R	I	R	I	R	I	R	I	R	I	R	I	R
Hub oil	R		I		R		I		R		I		R
Brake pads	I	I	I	I	I	I	I	I	I	I	I	I	I
Sliding shoes / CVT rollers			R		R		R		R		R		R
Tyre pressure and wear	I		I		I		I		I		I		I
Vehicle road test	I		I		I		I		I		I		I
Suspension			I		I		I		I		I		I
Steering	A		A		A		A		A		A		A

*I: CHECK AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY.*

**C: CLEAN, R: REPLACE, A: ADJUST, L: LUBRICATE**

\* Replace every 2 years



## Periodic maintenance table (06\_02)

### WARNING



THE ANNUAL ROUTINE SERVICE WAS DEVELOPED TO ENSURE A CORRECT MAINTENANCE OF THE VEHICLE, EVEN IF THE INTERVALS OF SCHEDULED MAINTENANCE IN KM OR MILES IS NOT REACHED.

THE FIRST SERVICE IS EXPECTED AFTER 1,000 KM, OR WITHIN 6 MONTHS AFTER VEHICLE REGISTRATION. THE OPERATIONS ARE LISTED IN THE SCHEDULED MAINTENANCE TABLE.

THE SECOND MILEAGE SERVICE AND FOLLOWING, WHEN REACHING THE MILEAGE EXPIRY GIVEN IN THE MAINTENANCE PLAN.

THE ANNUAL ROUTINE SERVICE MUST BE CARRIED OUT WITHIN 12 MONTHS AFTER THE LAST SERVICE, WHEN THE EXPECTED MILEAGE IS NOT REACHED.

### ROUTINE MAINTENANCE TABLE

Vehicle type (months)	4Str, air cooled, EFI (12)	4Str, air cooled, EFI (24)	4Str, liquid cooled, EFI (12)	4Str, liquid cooled, EFI (24)	4Str, carb. (12)	4Str, carb. (24)	2Str, carb. (12)	2Str, carb. (24)
Stand	L	L	L	L	L	L	L	L
Carburettor					C	C	C	C
Mixer belt							I	I
Throttle control	I	I	I	I	I	I	I	I
Diagnosis by tool	I	I	I	I				
Engine oil filter	R	R	R	R				

Vehicle type (months)	4Str, air cooled, EFI (12)	4Str, air cooled, EFI (24)	4Str, liquid cooled, EFI (12)	4Str, liquid cooled, EFI (24)	4Str, carb. (12)	4Str, carb. (24)	2Str, carb. (12)	2Str, carb. (24)
Cylinder cooling system	I	I			I	I	I	I
Brake levers	L	L	L	L	L	L	L	L
Coolant			I	R				
Brake fluid	I	R	I	R	I	R	I	R
Engine oil	R	R	R	R	R	R		
Hub oil	I	I	I	I	I	I	I	I
Brake pads	I	I	I	I	I	I	I	I
Tyre pressure and wear	I	I	I	I	I	I	I	I
Suspension	I	I	I	I	I	I	I	I
Steering	I	I	I	I	I	I	I	I
Transmission	L	L	L	L	L	L	L	L
Vehicle road test	I	I	I	I	I	I	I	I

### RECOMMENDED PRODUCTS TABLE

Product	Description	Specifications
AGIP GEAR SAE 80W-90	Lubricant for gearboxes and transmissions.	API GL-4
eni i-Ride PG 5W-40	Synthetic based lubricant for high-performance four-stroke engines.	JASO MA, MA2 - API SL - ACEA A3
AGIP FILTER OIL	Special product for the treatment of foam filters.	-

<b>Product</b>	<b>Description</b>	<b>Specifications</b>
AGIP GP 330	Water repellent stringy calcium spray grease.	R.I.D./A.D.R. 2 10°b) 2 R.I.Na. 2.42 - I.A.T.A. 2 - I.M.D.G. class 2 UN 1950 Page 9022 EM 25-89
AGIP BRAKE 4	Brake fluid.	SAE J 1703 -FMVSS 116 - DOT 3/4 - ISO 4925 - CUNA NC 956 DOT 4 synthetic fluid
AGIP PERMANENT SPECIAL	Ethylene glycol antifreeze liquid with organic inhibition additives. Red, ready to use.	ASTM D 3306 - ASTM D 4656 - ASTM D 4985 - CUNA NC 956-16

**UNIT OF MEASURE - CONVERSION - ENGLISH SYSTEM  
TO 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 <sup>3</sup> )	16.4 Cubic centimetres (cm <sup>3</sup> )
1 Foot pound (lb ft)	1,356 Newton meter (Nm)
1 Miles per hour (mi/h)	1.602 kilometres per hour (Km/h)
1 Pound per square inch (PSI)	0.069 (bar)
1 Fahrenheit (°F)	32+(9/5) Celsius (°C)

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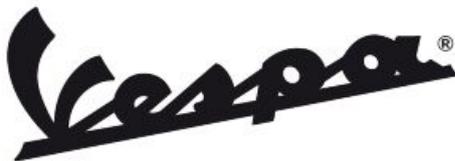
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