

# aprilia

## PEGASO 650 I.E.

ProCarManuals.com




aprilia part# 8104312

**use+maintenance**book



## SAFETY WARNINGS

The following precautionary warnings are used throughout this manual in order to convey the following messages:

 **Safety warning. When you find this symbol on the vehicle or in the manual, be careful to the potential risk of personal injury. Non-compliance with the indications given in the messages preceded by this symbol may result in grave risks for your and other people's safety and for the vehicle!**

### WARNING

**Indicates a potential hazard which may result in serious injury or even death.**

### CAUTION

**Indicates a potential hazard which may result in minor personal injury or damage to the vehicle.**

**NOTE** The word "NOTE" in this manual precedes important information or instructions.

## TECHNICAL INFORMATION

★ The operations preceded by this symbol must be repeated also on the opposite side of the vehicle.

If not expressly indicated otherwise, for the reassembly of the units repeat the disassembly operations in reverse order.

The terms "right" and "left" are referred to the rider seated on the vehicle in the normal riding position.

## WARNINGS - PRECAUTIONS - GENERAL ADVICE

Before starting the engine, carefully read this manual and in particular the section "SAFE DRIVE".

Your and other people's safety depends not only on your quickness of reflexes and on your agility, but also on what you know about the vehicle, on its efficiency and on your knowledge of the basic information for "SAFE DRIVE". Therefore, get a thorough knowledge of the vehicle, in such a way as to be able to drive in the traffic safely.

**NOTE** Keep a stock of one bulb per type with the vehicle (see technical data).

First edition: January 2001

Reprint: January 2002, November 2002,  
May 2003, February 2004

Produced and printed by:  
**DECA s.r.l.**  
Via Risorgimento, 23/1 - Lugo (RA) - Italia  
Tel. +39 - 0545 35235  
Fax +39 - 0545 32844  
E-mail: [deca@decaweb.it](mailto:deca@decaweb.it)  
[www.decaweb.it](http://www.decaweb.it)

on behalf of:  
**aprilia s.p.a.**  
via G. Galilei, 1 - 30033 Noale (VE) - Italia  
Tel. +39 - 041 58 29 111  
Fax +39 - 041 44 10 54  
[www.aprilia.com](http://www.aprilia.com)

**NOTE** This manual must be considered as an integral part of the vehicle and must always accompany it, even in case of resale.

**aprilia** has carried out this manual with the maximum attention, in order to supply the user with correct and updated information. However, since **aprilia** constantly improves the design of its products, there may be slight discrepancies between the characteristics of your vehicle and those described in this manual. For any clarification concerning the information contained in this manual, do not hesitate to contact your **aprilia** Official Dealer.

For control and repair operations not expressly described in this publication, for the purchase of **aprilia** genuine spare parts, accessories and other products, as well as for specific advice, contact exclusively **aprilia** Official Dealers and Service Centers, which guarantee prompt and accurate assistance.

Thank you for choosing **aprilia**. We wish you a nice ride.

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**NOTE** In some countries the antipollution and noise regulations in force require periodical inspections.

The user of the vehicle in these countries must:

- contact an **aprilia** Official Dealer to have the non-homologated components replaced with others homologated for use in the country in question;
- carry out the required periodical inspections.

**NOTE** Soon after purchasing the vehicle, write down the identification data indicated on the SPARE PARTS IDENTIFICATION LABEL in the table here below. This label is positioned on the left side of the saddle support; to read it, it is necessary to remove the saddle, see p. 18 (UNLOCKING/LOCKING THE SADDLE).


<b>aprilia</b>					YEAR	Y	1	2	3	4
SPARE PARTS IDENTIFICATION					I.M.	A	B	C	D	E
I	UK	A	P	SF	B	D	F	E	GR	
NL	CH	DK	J	SGP	SLO	IL	ROK	MAL	RCH	
HR	AUS	USA	BR	RSA	NZ	CDN				

These data indicate:

- YEAR = year of manufacture (Y, 1, 2, ...);
- I.M. = modification code (A, B, C, ...);
- COUNTRY CODES = homologation country (I, UK, A, ...).

and are to be supplied to the **aprilia** Official Dealer as reference data for the purchase of spare parts or specific accessories of the model you have acquired.

In this manual the various versions are indicated by the following symbols:

- OPT** optional
- TBT** TIBET version
- VVE** coolant expansion tank variant
-  catalytic version

#### VERSION:

- |                          |                                     |
|--------------------------|-------------------------------------|
| <b>I</b> Italy           | <b>SGP</b> Singapore                |
| <b>UK</b> United Kingdom | <b>SLO</b> Slovenia                 |
| <b>A</b> Austria         | <b>IL</b> Israel                    |
| <b>P</b> Portugal        | <b>ROK</b> South Korea              |
| <b>SF</b> Finland        | <b>MAL</b> Malaysia                 |
| <b>B</b> Belgium         | <b>RCH</b> Chile                    |
| <b>D</b> Germany         | <b>HR</b> Croatia                   |
| <b>F</b> France          | <b>AUS</b> Australia                |
| <b>E</b> Spain           | <b>USA</b> United States of America |
| <b>GR</b> Greece         | <b>BR</b> Brazil                    |
| <b>NL</b> Holland        | <b>RSA</b> South Africa             |
| <b>CH</b> Switzerland    | <b>NZ</b> New Zealand               |
| <b>DK</b> Denmark        | <b>CDN</b> Canada                   |
| <b>J</b> Japan           |                                     |

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safe drive



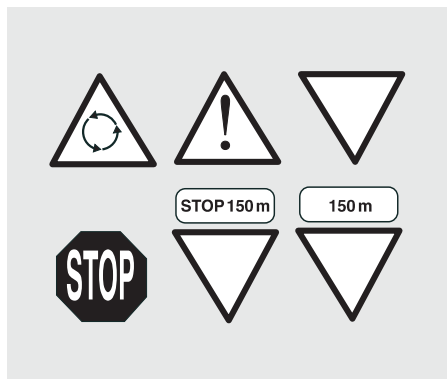
## BASIC SAFETY RULES

To drive the vehicle it is necessary to be in possession of all the requirements prescribed by law (driving licence, minimum age, psychophysical ability, insurance, state taxes, vehicle registration, number plate, etc.).

Gradually get to know the vehicle by driving it first in areas with low traffic and/or private areas.

The use of medicins, alcohol and drugs or psychotropic substances notably increases the risk of accidents.

Be sure that you are in good psychophysical conditions and fit for driving and pay particular attention to physical weariness and drowsiness.

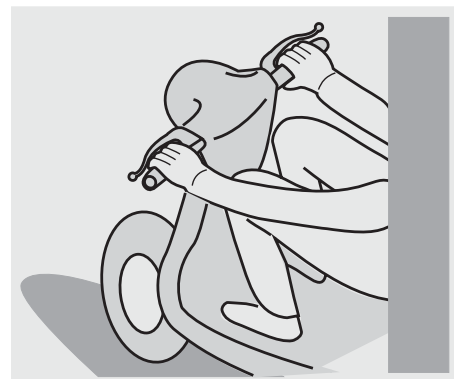


Most road accidents are caused by the driver's lack of experience.

**NEVER** lend the vehicle to beginners and, in any case, make sure that the driver has all the requirements for driving.

Rigorously observe all road signs and national and local road regulations.

Avoid abrupt movements that can be dangerous for yourself and other people (for example: rearing up on the back wheel, speeding, etc.), and give due consideration to the road surface, visibility and other driving conditions.



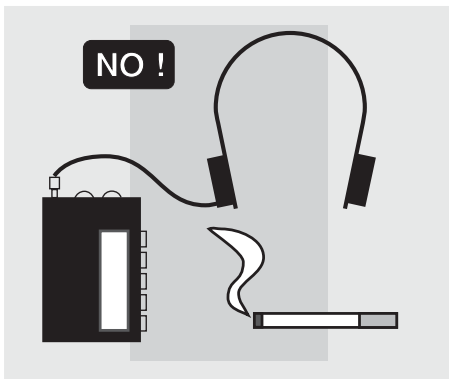
Avoid obstacles that could damage the vehicle or make you lose control.

Avoid riding in the slipstream created by preceding vehicles in order to increase your speed.

## **⚠ WARNING**

**Always drive with both hands on the handlebars and both feet on the footrests (or on the rider's footboards), in the correct driving posture.**

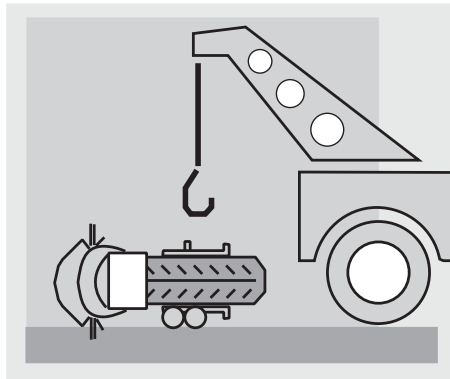
Avoid standing up or stretching your limbs while driving.



The driver should pay attention and avoid distractions caused by people, things and movements (never smoke, eat, drink, read, etc.) while driving.

Use only the vehicle's specific fuels and lubricants indicated in the "LUBRICANT CHART"; check all oil, fuel and coolant levels regularly.

If the vehicle has been involved in an accident, make sure that no damage has occurred to the control levers, pipes, wires, braking system and vital parts.



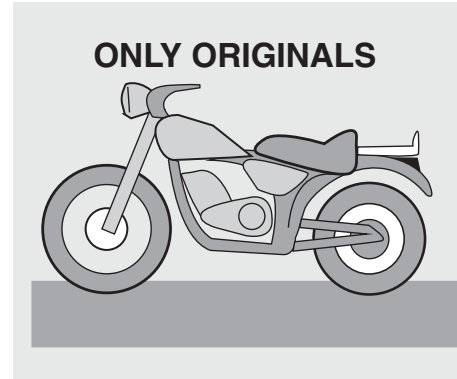
If necessary, have the vehicle inspected by an **aprilia** Official Dealer who should carefully check the frame, handlebars, suspensions, safety parts and all the devices that you cannot check by yourself.

Always remember to report any malfunction to the technicians to help them in their work.

Never use the vehicle when the amount of damage it has suffered endangers your safety.

Never change the position, inclination or colour of: number plate, direction indicators, lights and horns.

Any modification of the vehicle will result in the invalidity of the guarantee.

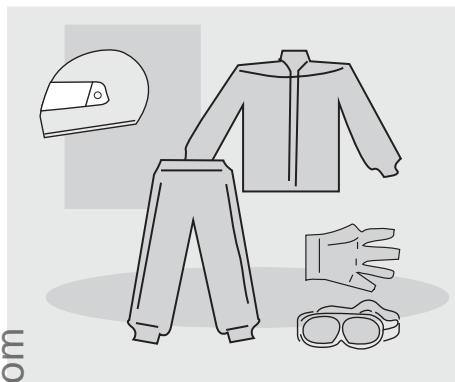


Any modification of the vehicle and/or the removal of original components can compromise vehicle performance levels and safety or even make it illegal.

We recommend respecting all regulations and national and local provisions regarding the equipment of the vehicle.

In particular, avoid all modifications that increase the vehicle's performance levels or alter its original characteristics.

Never race with other vehicles.

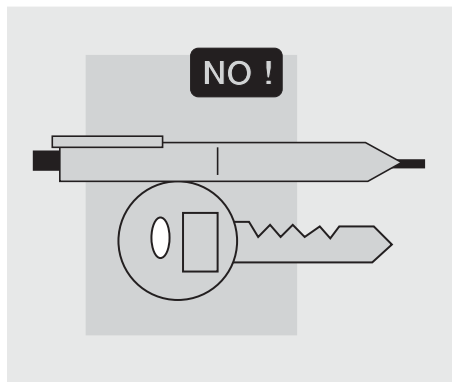


## CLOTHING

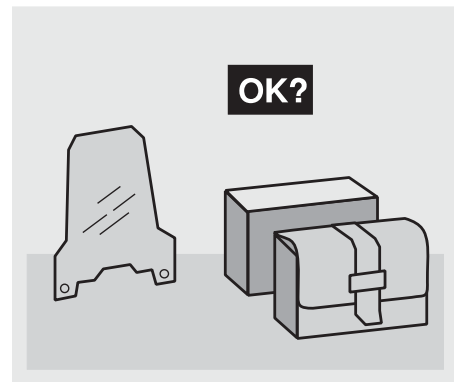
Before starting, always wear a correctly fastened crash helmet. Make sure that it is homologated, in good shape, of the right size and that the visor is clean.

Wear protective clothing, preferably in light and/or reflecting colours. In this way you will make yourself more visible to the other drivers, thus notably reducing the risk of being knocked down, and you will be more protected in case of fall.

This clothing should be very tight-fitting and fastened at the wrists and ankles; strings, belts and ties should not be hanging loose; prevent these and other objects from interfering with driving by getting entangled with moving parts or driving mechanisms.



Do not keep objects that can be dangerous in case of fall, for example pointed objects like keys, pens, glass vials etc. in your pockets (the same recommendations also apply to passengers).



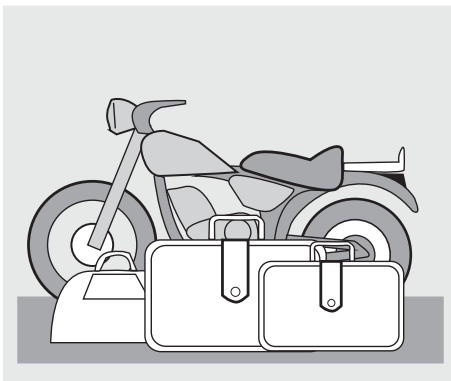
## ACCESSORIES

The owner of the vehicle is responsible for the choice, installation and use of any accessory.

Avoid installing accessories that cover horns or lights or that could impair their functions, limit the suspension stroke and the steering angle, hamper the operation of the controls and reduce the distance from the ground and the angle of inclination in turns.

Avoid using accessories that hamper access to the controls, since this can prolong reaction times during an emergency.

Big fairings and windshields installed on the vehicle may produce aerodynamic forces that affect the stability of the vehicle, especially when riding at high speed.



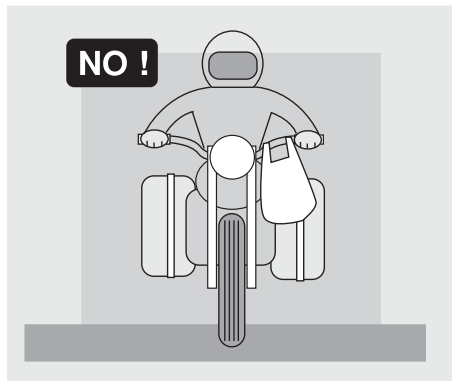
Make sure that the equipment is well fastened to the vehicle and not dangerous during driving.

Do not install electrical devices and do not modify those already existing to avoid electrical overloads, because the vehicle could suddenly stop or there could be a dangerous current shortage in the horn and in the lights.

**aprilia** recommends the use of genuine accessories (**aprilia** genuine accessories).

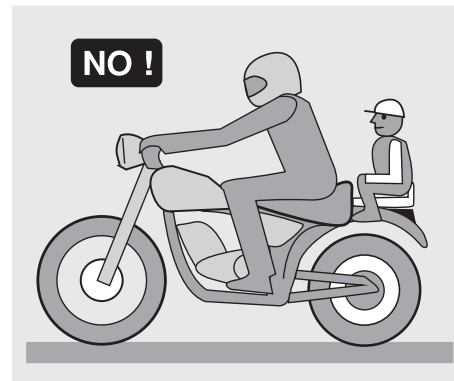
## LOAD

Be careful and moderate when loading your luggage. Keep any luggage loaded as close as possible to the center of gravity of the vehicle and distribute the load uniformly on both sides, in order to reduce unbalance to the minimum. Furthermore, make sure that the load is firmly secured to the vehicle, especially during long trips.



Avoid hanging bulky, heavy and/or dangerous objects on the handlebars, mudguards and forks, because the vehicle might respond more slowly in turns and its manoeuvrability could be unavoidably impaired.

Do not place bags that are too bulky on the vehicle sides and do not ride with the crash helmet, because they could hit people or obstacles, making you lose control of the vehicle.



Do not carry any bag if it is not tightly secured to the vehicle.

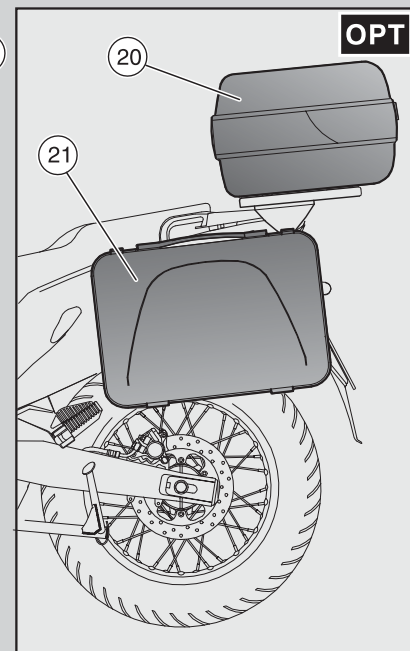
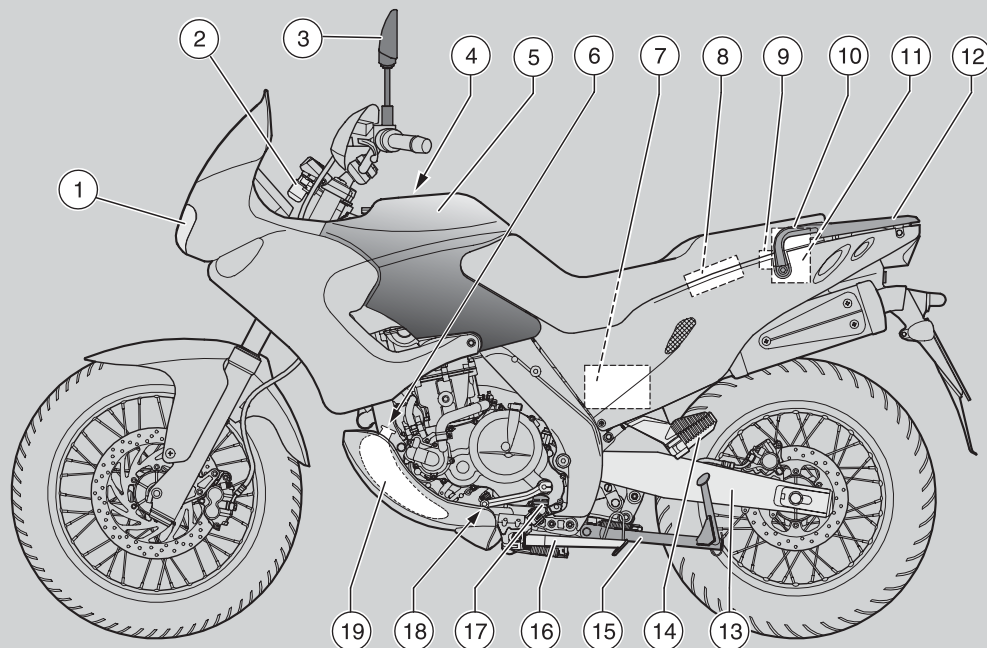
Do not carry bags which protrude too much from the luggage-rack or which cover the lights, horn or indicators.

Do not carry animals or children on the glove compartment or on the luggage rack.

Do not exceed the maximum load allowed for each side-bag.

When the vehicle is overloaded, its stability and its manoeuvrability can be compromised.

## ARRANGEMENT OF THE MAIN ELEMENTS



### KEY

- 1) Headlight
- 2) Ignition switch/steering lock
- 3) Left rear-view mirror
- 4) Fuel tank filler cap
- 5) Fuel tank
- 6) Coolant expansion tank cap
- 7) Battery
- 8) Electronic unit

- 9) Fuse carrier
- 10) Passenger grab rail
- 11) Glove/tool kit compartment
- 12) Rear luggage rack
- 13) Rear fork
- 14) Passenger left footrest (snapping, closed/open)

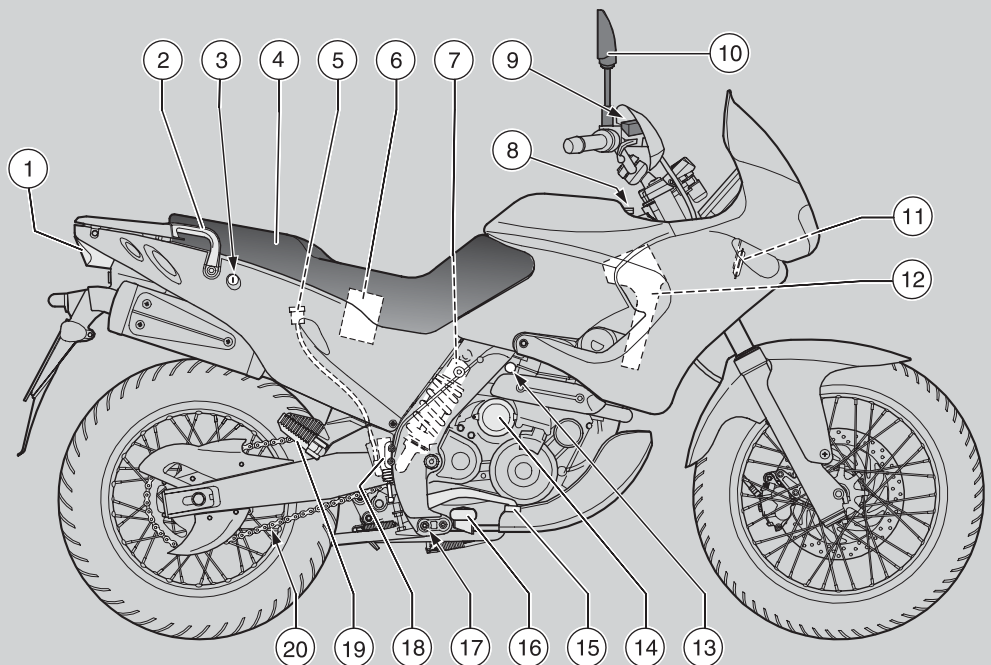
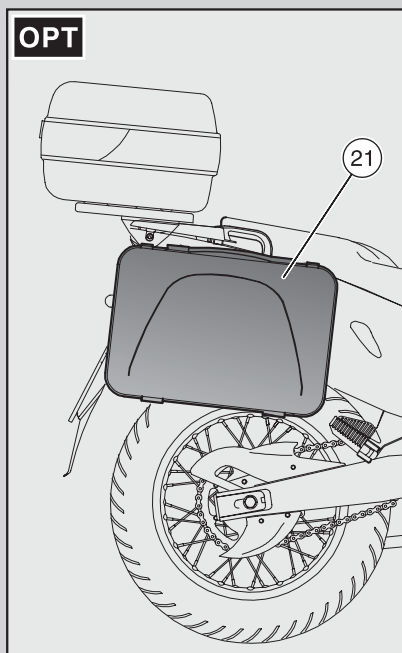
- 15) Centre stand **OPT** (\*)
- 16) Side stand
- 17) Rider left footrest
- 18) Shifting lever
- 19) **Not present** **TBT** **VVE**.

Coolant expansion tank

- 19A) **TBT** **VVE**. Coolant expansion tank

- 20) Rear luggage rack **OPT** (\*)
- 21) Left side bag **OPT** (\*)

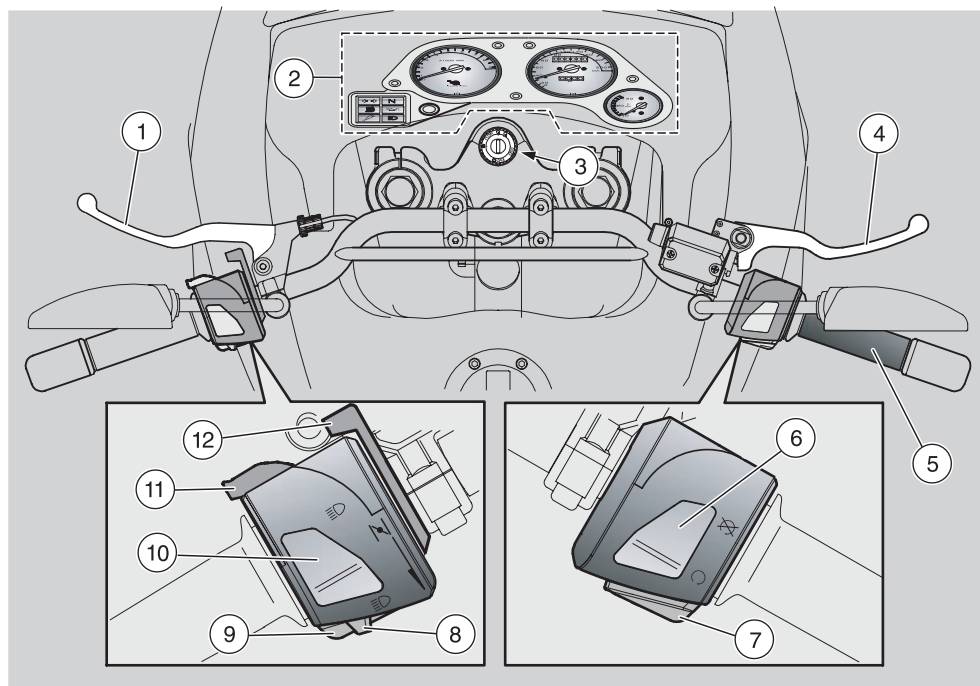
(\*) = Supplied as standard equipment in the countries where required)



## KEY

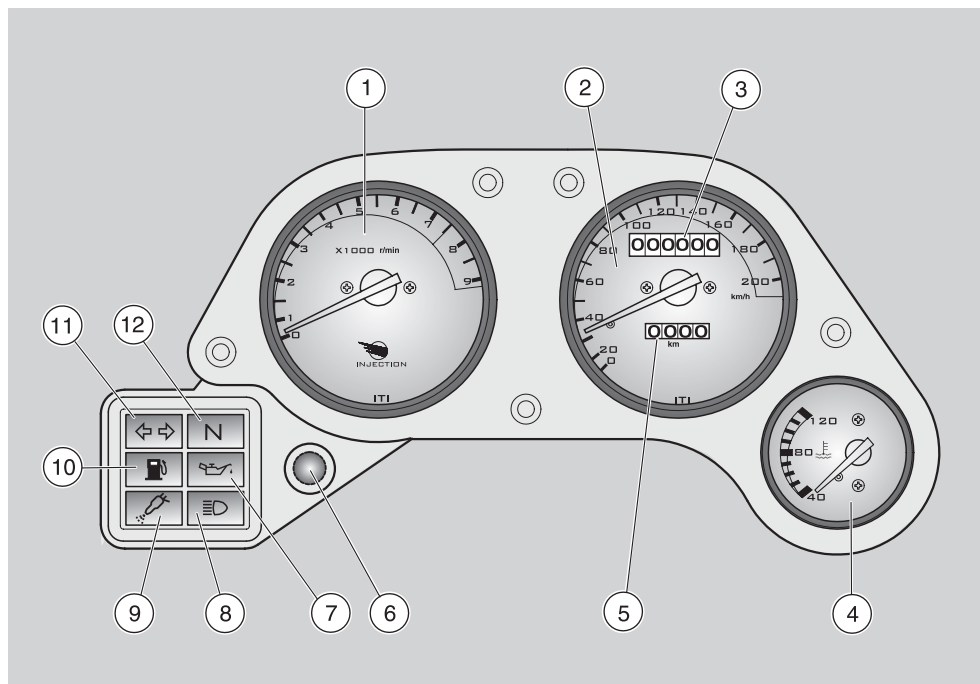
- |                          |                                   |                                                                           |                                                                                                |
|--------------------------|-----------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 1) Rear light            | 8) Engine oil level plug-dipstick | 15) Rear brake control lever                                              | 20) Drive chain                                                                                |
| 2) Passenger grab rail   | 9) Front brake fluid tank         | 16) Rider right footrest                                                  | 21) Right side bag <b>OPT</b> (supplied as standard equipment in the countries where required) |
| 3) Saddle lock           | 10) Right rear-view mirror        | 17) Anti-theft hook (for shielded cable "Body-Guard" <b>aprilia OPT</b> ) |                                                                                                |
| 4) Saddle                | 11) Horn                          | 18) Rear brake pump                                                       |                                                                                                |
| 5) Rear brake fluid tank | 12) Engine oil tank               | 19) Passenger right footrest (snapping, closed/open)                      |                                                                                                |
| 6) Air cleaner           | 13) Idle speed adjusting knob     |                                                                           |                                                                                                |
| 7) Rear shock absorber   | 14) Engine oil filter             |                                                                           |                                                                                                |

## ARRANGEMENT OF THE INSTRUMENTS/CONTROLS



### KEY










- |                                              |                                          |
|----------------------------------------------|------------------------------------------|
| 1) Clutch lever                              | 8) Direction indicator switch (↔)        |
| 2) Instruments and indicators                | 9) Horn push button (🔊)                  |
| 3) Ignition switch/steering lock (🔑 - 🔒 - 🔑) | 10) Dimmer switch (🔼 - 🔽)                |
| 4) Front brake lever                         | 11) High beam signalling push button (🔼) |
| 5) Throttle grip                             | 12) Cold start lever (🔼)                 |
| 6) Engine stop switch (🔑 - 🔒)                |                                          |
| 7) Start push button (🔑)                     |                                          |



## KEY

- |                                               |                                                  |
|-----------------------------------------------|--------------------------------------------------|
| 1) Revolution counter                         | 8) Blue high beam warning light (≡D)             |
| 2) Speedometer                                | 9) Red diagnostic warning light (🔧)              |
| 3) Total kilometres odometer                  | 10) Amber low fuel warning light (⛽)             |
| 4) Coolant temperature indicator (🌡️)         | 11) Green direction indicator warning light (↔↔) |
| 5) Partial kilometres odometer                | 12) Green neutral indicator warning light (N)    |
| 6) Trip meter resetting knob                  |                                                  |
| 7) Red engine oil pressure warning light (🛢️) |                                                  |

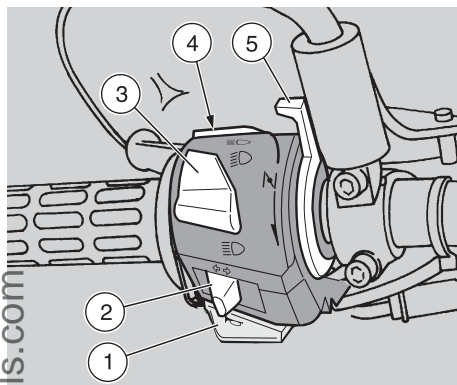
## INSTRUMENTS AND INDICATORS TABLE

Description	Function
Direction indicator warning light 	Blinks when the direction indicators are on.
High beam warning light 	Comes on when the high beam bulbs are on or when the headlight signaller is operated.
Revolution counter <i>rpm</i>	Indicates the number of revolutions of the engine per minute. <b>⚠ CAUTION</b> Never exceed the engine max. speed rate, see p. 47 (RUNNING-IN).
Low fuel warning light 	It comes on when the quantity of fuel still available in the fuel tank is less than 5 ℓ. <b>In this case, top up as soon as possible, see p. 24 (FUEL).</b>
Engine oil pressure Warning light 	Comes on whenever the ignition switch is in position “O” and the engine is not running, thus checking the functionality of the bulb. If the light does not come on in this phase, contact an <b>aprilia</b> Official Dealer. <b>⚠ CAUTION</b> If the engine oil pressure warning light “  ” remains on after the start or comes on during the normal operation of the engine, this means that the engine oil pressure in the circuit is insufficient. <b>In this case, stop the engine immediately and contact an aprilia Official Dealer.</b>
Neutral indicator warning light 	Comes on when the gear is in neutral.
Diagnostic warning light 	It comes on whenever the ignition switch is positioned on “O” and goes out a few seconds after the engine start. <b>⚠ CAUTION</b> Do not carry out any operation on the components of the vehicle with the ignition switch in position “O”. With the engine stop switch in position “  ”, it comes on whenever the ignition switch is positioned on “O” and remains on, with low light intensity, thus checking the correct operation of the injection circuit. If the light does not come on in this phase, contact an <b>aprilia</b> Official Dealer. <b>⚠ CAUTION</b> If the diagnostic warning light “  ” remains on after the engine start or comes on during the normal operation of the engine, this means that the electronic unit has detected an anomaly. In many cases the engine keeps running with limited functions; contact an <b>aprilia</b> Official Dealer immediately.

Follow Ø

Follow Ø

Description	Function
Speedometer (km/h)	It indicates the driving speed.
Total kilometres odometer	It indicates the total number of kilometres covered.
Coolant temperature indicator	<p>It indicates the approximate temperature of the coolant in the engine. When the pointer starts moving beyond the "40" level, the temperature is sufficient for driving the vehicle. The normal operating temperature appears on the graduated area of the scale.</p> <p><b>⚠ CAUTION</b> The switching on and off of the cooling fan does not depend on the position of the ignition switch. To lower the coolant temperature, the cooling fan works even when the engine is off and it is disconnected automatically.</p> <p><b>⚠ CAUTION</b> If the maximum allowed temperature is exceeded (red area of the scale), the engine may be seriously damaged.</p> <p>If the pointer gets near the red area, stop the engine, wait until the cooling fan is disconnected and check the coolant level, see p. 31 (COOLANT).</p> <p>If the pointer reaches the red area, stop the vehicle and let the engine idle for approximately two minutes, thus permitting the regular circulation of the coolant in the system; then, position the engine stop switch on "⊗" and check the coolant level, see p. 31 (COOLANT). If the situation on the dashboard remains the same after the coolant level has been checked, do not start the vehicle and contact an <b>aprilia</b> Official Dealer.</p>
Partial kilometres odometer	It indicates the partial number of kilometres covered. To set it to zero, use the trip meter resetting knob.
Trip meter resetting knob	Rotate it anticlockwise to set the partial kilometres odometer to zero.



## CONTROLS ON THE LEFT PART OF THE HANDLEBAR

**NOTE** The electrical parts work only when the ignition switch is in position “O”.

### 1) HORN PUSH BUTTON (🔊)

The horn is activated when the push button is pressed.

### 2) DIRECTION INDICATOR SWITCH (↔)

To indicate the turn to the left, move the switch to the left; to indicate the turn to the right, move the switch to the right. To turn off the direction indicator, press the switch.

### 3) DIMMER SWITCH (🔦 - 🔦)

When it is in position “🔦” the parking lights, the dashboard light and the low beam are always on.

When it is in position “🔦”, the high beam comes on.

### 4) HIGH BEAM SIGNALLING PUSH BUTTON (🔦)

It makes it possible to use the high beam for signalling to forthcoming vehicles while overtaking and in case of peril and/or emergency. Press the push button to operate the high beam blinking

**NOTE** To disconnect the high beam blinking, release the push button.

### 5) COLD START LEVER (↙)

The starter for the cold start of the engine is operated by rotating the lever “↙” downwards.

To disconnect the starter, move the lever “↙” to its initial position.

## CONTROLS ON THE RIGHT PART OF THE HANDLEBAR

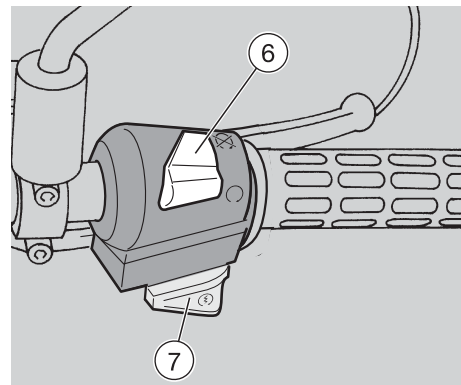
**NOTE** The electrical parts work only when the ignition switch is in position “O”.

### 6) ENGINE STOP SWITCH (○ - ☒)

#### ⚠ WARNING

**Do not operate the engine stop switch “○ - ☒” in running conditions.**

This is a safety or emergency switch. With the switch pressed in position “○”, it is possible to start the engine; when the switch is pressed to position “☒”, the engine stops.



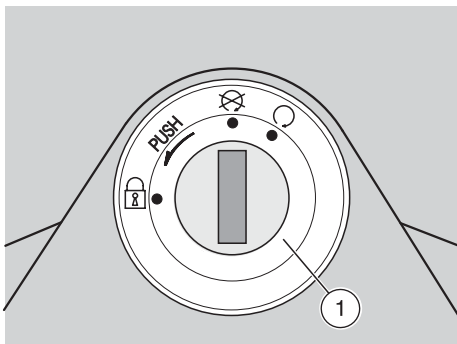
#### ⚠ CAUTION

**With stopped engine and ignition switch in position “O”, the battery may discharge.**

**When the vehicle has come to rest, after stopping the engine, move the ignition switch to position “☒”.**

### 7) START PUSH BUTTON (🔦)

When the start push button “🔦” is pressed, the starter makes the engine run. For the starting, see p. 41 (STARTING).



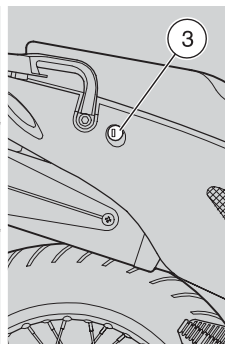
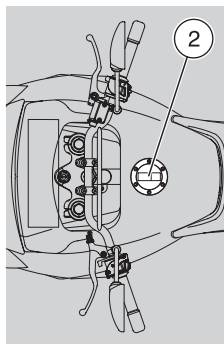
## IGNITION SWITCH




The ignition switch (1) is positioned on the upper plate of the steering column.

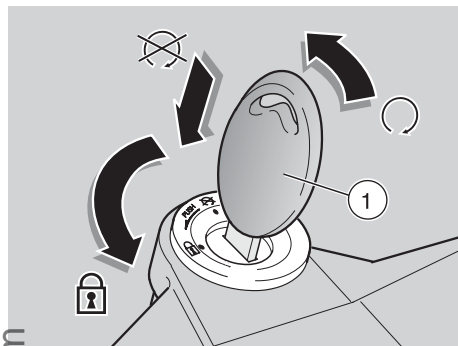
**NOTE** The key operates the ignition switch/steering lock, the fuel tank lock (2) and the saddle lock (3).

Two keys are supplied together with the vehicle (one spare key).

**NOTE** Do not keep the spare key on the vehicle.



Position	Function	Key removal
 Steering lock	The steering is locked. It is not possible to start the engine.	It is possible to remove the key.
	The engine cannot be started.	It is possible to remove the key.
	The engine can be started.	It is not possible to remove the key.



## STEERING LOCK

### ⚠ WARNING

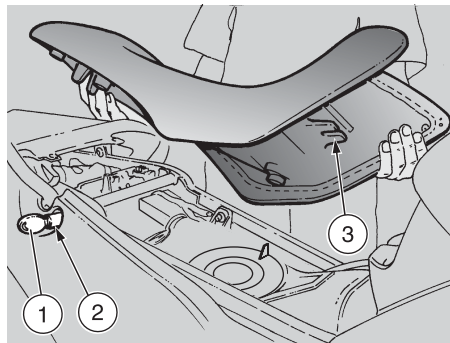
Never turn the key to position “” in running conditions, in order to avoid losing control of the vehicle.

## OPERATION

### To lock the steering:

- ◆ Turn the handlebar completely leftwards.
- ◆ Turn the key (1) to position “”.
- ◆ Press the key (1) and rotate it to position “”.
- ◆ Withdraw the key (1).

## AUXILIARY EQUIPMENT



## UNLOCKING/LOCKING THE SADDLE

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Insert the key (1) in the saddle lock (2).
- ◆ Turn the key (1) clockwise and raise and remove the saddle.

**NOTE** Before lowering and locking the saddle, make sure that you have not left the key in the glove/tool kit compartment.

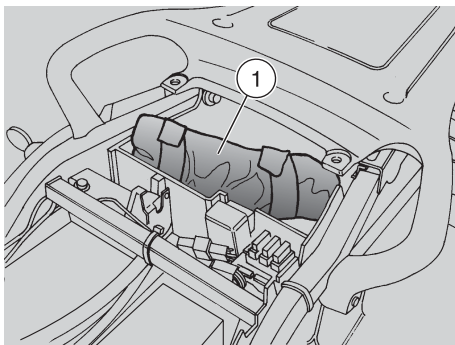


### To lock the saddle:

- ◆ Position the tangs (3) in the seat, lower and press the saddle, making the lock snap.

### ⚠ WARNING

**Before leaving, make sure that the saddle is properly locked.**



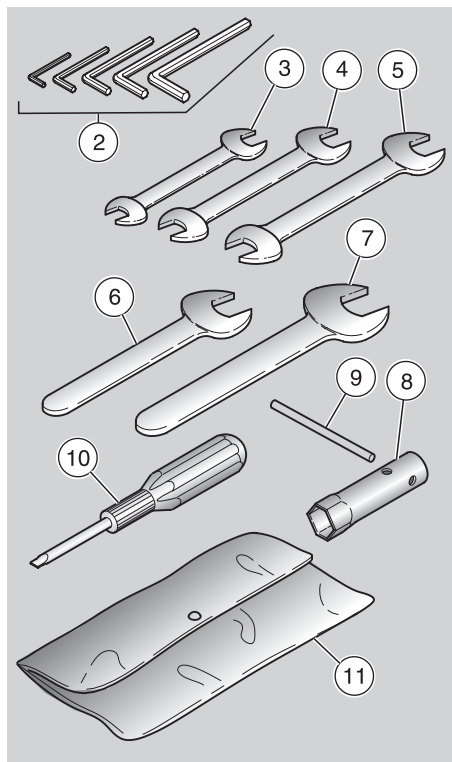
## GLOVE/TOOL KIT COMPARTMENT

To reach the glove/tool kit compartment, proceed as follows:

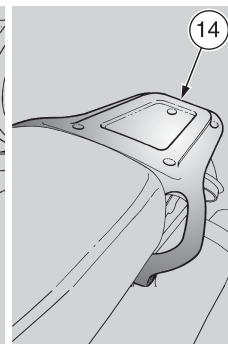
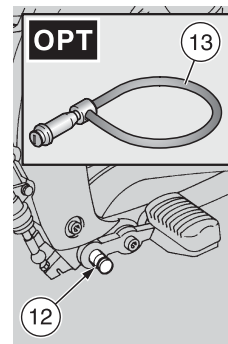
- ◆ Remove the saddle, see p. 18 (UNLOCKING/LOCKING THE SADDLE).

The tool kit (1) includes:

- 3, 4, 5, 6, 8 mm bent hexagon spanners (2);
- 5.5 – 7 mm double fork spanner (3);
- 8 – 11 mm double fork spanner (4);
- 10 – 13 mm double fork spanner (5);
- 19 mm simple fork spanner (6);
- 24 mm simple fork spanner (7);
- 18 mm socket spanner for spark plug (8);
- socket spanner rod (9);
- double-ended, cross-/cut-headed screwdriver (10);
- tool case (11);



Maximum allowed weight: 1.5 kg.



## ANTI-THEFT HOOK

The anti-theft hook (12) is positioned on the right side of the vehicle, near the rider footboard.

To prevent the vehicle from being stolen, it is advisable to secure it with the shielded cable "Body-Guard" **aprilia** **OPT** (13), available at the **aprilia** Official Dealers .

## ⚠ WARNING

Do not use the hook to lift the vehicle or for other purposes, since it has been designed exclusively to secure the vehicle once it has been parked.

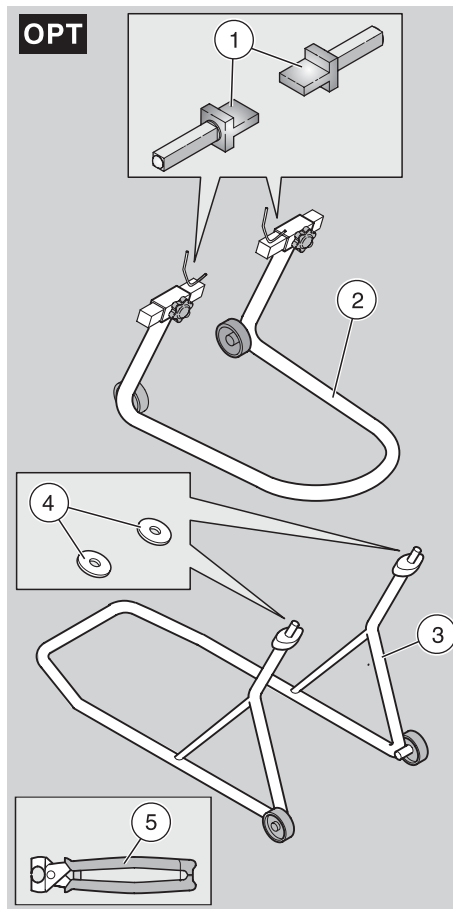
## REAR LUGGAGE RACK

Maximum weight allowed for the rear luggage rack (14): 9 kg

## SPECIAL TOOLS **OPT**

To perform some specific operations, it is advisable to use the following special tools (to be requested to an **aprilia** Official Dealer):

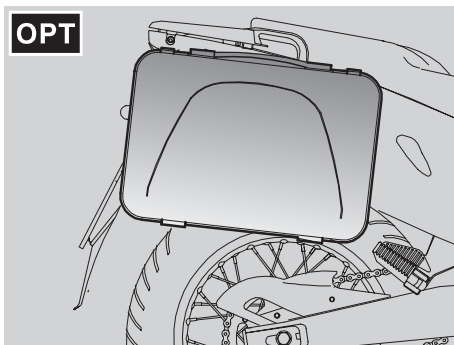
Tool	Operations
Support pins (1) for the rear support stand, see p. 61 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND <b>OPT</b> ).	Positioning of the vehicle on the rear stand.
Rear support stand (2), see p. 61 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND <b>OPT</b> ).	Rear wheel disassembly. Drive chain adjustment.
Front support stand (3), see p. 61 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND <b>OPT</b> ).	Front wheel disassembly.
Washer (4) for front support stand, see p. 61 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND <b>OPT</b> ).	Front wheel disassembly.
Click clamp (5) installation pliers, see p. 54 (CLICK CLAMPS).	Click clamp installation.



## ACCESSORIES

The vehicle may be equipped with the following accessories (to be requested to the **aprilia** Official Dealer):

- side bags **OPT**, see p. 21 [SIDE BAGS **OPT** (supplied as standard equipment in the countries where required)];
- rear case **OPT**, see p. 23 [REAR CASE **OPT** (supplied as standard equipment in the countries where required)];
- centre stand **OPT** (supplied as standard equipment in the countries where required).



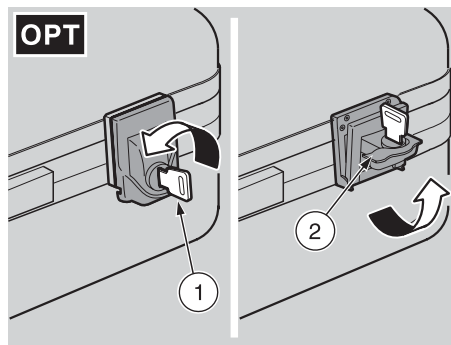
**SIDE BAGS OPT (supplied as standard equipment in the countries where required)**

Thanks to the use of the side bags it is possible to transport clothes or other objects even in bad weather, so that they are protected and do not constitute a hindrance or a risk for the rider.

**NOTE** If the side bags are not installed on the vehicle, before using them it is necessary to install the appropriate supports, see p. 66 [INSTALLING THE SIDE BAG SUPPORTS OPT (supplied as standard equipment in the countries where required)].

Clean and lubricate the coupling lock on the bag every 6000 km (3750 mi) or 12 months.

**NOTE** The following information refers to one unit only, but is valid for both.

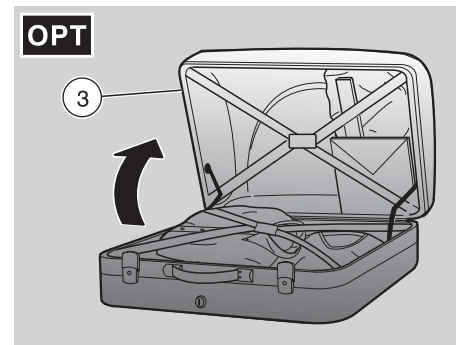


To open the side bag, proceed as follows:

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Introduce the key (1) in the lock.
- ◆ Turn the key (1) anticlockwise.
- ◆ Extract the key (1) and insert it in the other lock.
- ◆ Turn the key (1) anticlockwise.
- ◆ Lift the two parts of the lock (2).
- ◆ Open the case (3).

Two keys are supplied together with the vehicle (one spare key).

**NOTE** Do not keep the spare key on the vehicle.



**⚠ WARNING**

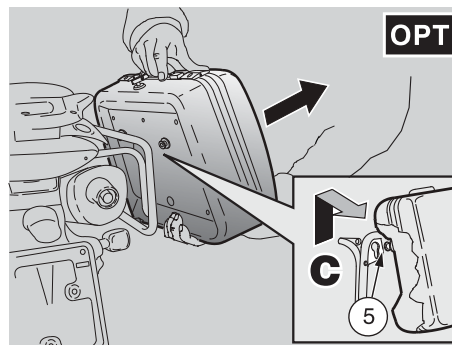
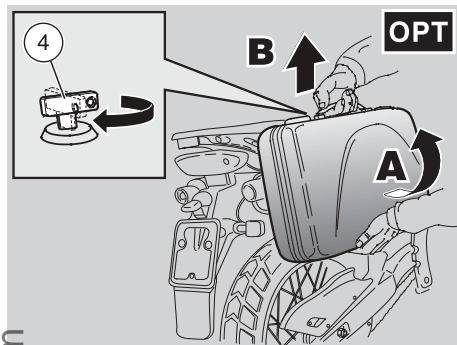
If it is necessary to transport more than one object, distribute the load uniformly on the side bags.

Secure the luggage by means of the appropriate elastic belts, in such a way as to avoid dangerous movements of the same during the trip.

It is not advisable to use the vehicle with only one side bag installed.

Do not load the side bags excessively.

Maximum allowed weight: 5 kg (for each bag).



**To remove the side bag, proceed as follows:**

- ◆ Introduce the key (4) in the lock.
- ◆ Turn the key (4) clockwise and at the same time move the lower part of the bag slightly towards the outside (A).
- ◆ Grasp the bag firmly with both hands, as indicated in the figure.
- ◆ Lift the bag (B) slightly and release it (C) from the appropriate coupling seats (5) on the bag support.

Two keys are supplied together with the vehicle (one spare key).

**NOTE** Do not keep the spare key on the vehicle.

### **⚠ CAUTION**

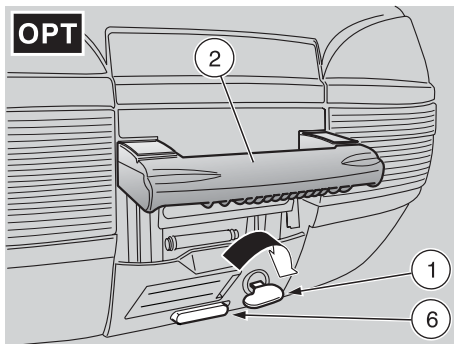
**Handle the plastic and painted components with care to avoid scraping or damaging them.**

### **⚠ WARNING**

**Upon reassembly, make sure that the bag is properly anchored to its support.**

**Upper part: perfect fitting of the bag coupling pins in the coupling seats provided on the support;**

**Lower part: perfect fitting of the support coupling pin in the relevant lock provided on the bag; when the lock snaps, the coupling is correct.**



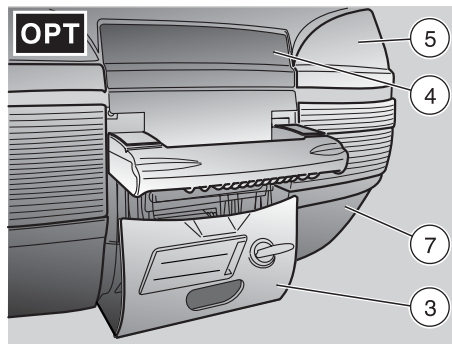
**REAR CASE** **OPT** (supplied as standard equipment in the countries where required)

Thanks to the use of the rear case, you no longer have to carry the crash helmet or other bulky objects with you every time you park the vehicle.

**NOTE** Write down your personal data on the appropriate plate positioned on the lock.

Clean and lubricate the coupling lock on the lower part of the case every 6000 km (3750 mi) or 12 months.

**NOTE** If the rear case is not installed on the vehicle, before using it, it is necessary to install the appropriate supports, see p. 68 (INSTALLING THE REAR CASE SUPPORTS **OPT** (supplied as standard equipment in the countries where required)).



To open the rear case, proceed as follows:

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Introduce the key (1) in the lock.
- ◆ Rotate the key (1) clockwise.
- ◆ Remove the handle (2).
- ◆ Lift the lock (3).
- ◆ Release the upper part (4) of the lock (3) from the case (5).
- ◆ Lift the upper part of the case to open it (5).

**NOTE** The case can contain two "FULL-FACE" helmets.

Two keys are supplied together with the vehicle (one spare key).

**NOTE** Do not keep the spare key on the vehicle.

**⚠ WARNING**

Do not load the rear case excessively.

Maximum allowed weight: 5 kg.

To remove the rear case, proceed as follows:

- ◆ Introduce the key (1) in the lock.
- ◆ Rotate the key (1) clockwise.
- ◆ Extract the handle (2) and grasp it firmly with one hand.
- ◆ Press the appropriate push button (6).
- ◆ Lift the case (7) and withdraw it from the relevant front couplings.

**⚠ CAUTION**

Handle the plastic and painted components with care to avoid scraping or damaging them.

**⚠ WARNING**

Upon reassembly, make sure that the case is properly anchored to its support.

Front part: perfect fitting of the support coupling elements into the seats provided on the case;

Rear part: perfect fitting of the support coupling pin in the relevant lock on the case; when the lock snaps, the coupling is correct.

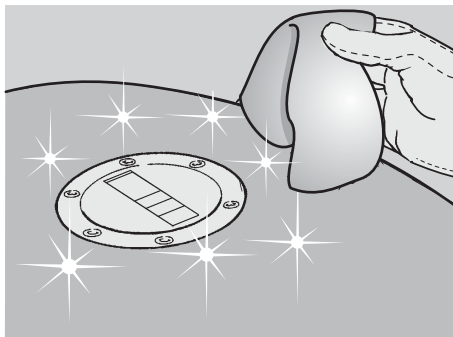


### FUEL

#### ⚠ WARNING

The fuel used for internal combustion engines is extremely inflammable and in particular conditions it can become explosive.

It is important to carry out the refuelling and the maintenance operations in a well-ventilated area, with the engine off. Do not smoke while refuelling or near fuel vapours, in any case avoid any contact with naked flames, sparks and any other heat source to prevent the fuel from catching fire or from exploding.

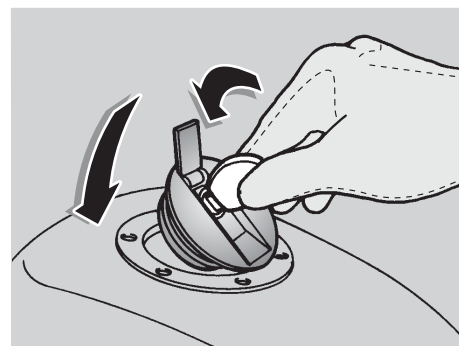


#### ⚠ WARNING

Further, prevent fuel from flowing out of the fuel filler, as it could catch fire when getting in contact with the red-hot surfaces of the engine.

In case some fuel has accidentally been spilt, make sure that the area has completely dried and before starting the vehicle verify that there is no fuel inside the fuel filler neck.

Since petrol expands under the heat of the sun and due to the effects of sun radiation, never fill the tank to the brim.



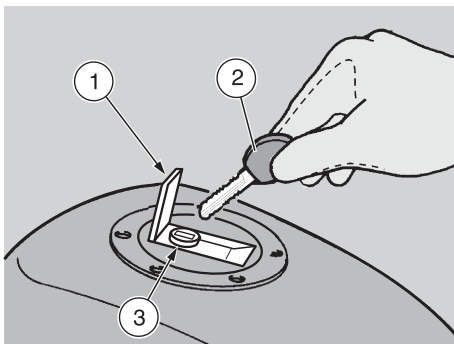
#### ⚠ WARNING

Screw the plug up carefully after refuelling. Avoid any contact of the fuel with the skin and the inhalation of vapours; do not swallow fuel or pour it from a receptacle into another by means of a tube.

**DO NOT DISPOSE OF FUEL IN THE ENVIRONMENT.**

**KEEP AWAY FROM CHILDREN.**

Use only unleaded petrol, in conformity with the DIN 51 607 standard, min. O.N. 95 (N.O.R.M.) and 85 (N.O.M.M.)



#### To refuel, proceed as follows:

- ◆ Raise the flap (1).
- ◆ Insert the key (2) in the tank plug lock (3).
- ◆ Turn the key clockwise, pull and open the fuel flap.

FUEL TANK CAPACITY  
(reserve included): 21 ℓ

TANK RESERVE: 5 ℓ



#### ⚠ CAUTION

**Do not put additives or other substances into the fuel.**

**If you use a funnel or other similar items, make sure that they are perfectly clean.**

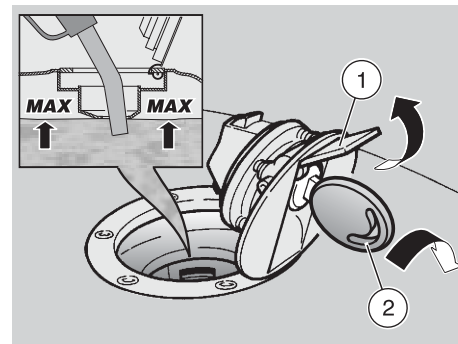
#### ⚠ WARNING

**Do not fill the tank completely; the maximum fuel level must remain below the lower edge of the filler neck (see figure).**

#### ⚠ CAUTION

**During the refilling operations, be careful to avoid damaging the inner parts of the tank with the fuel pump.**

- ◆ Refuel.



#### After refuelling:

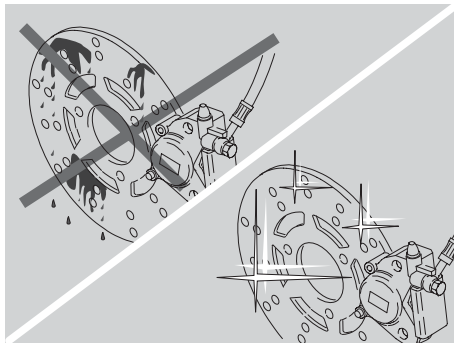
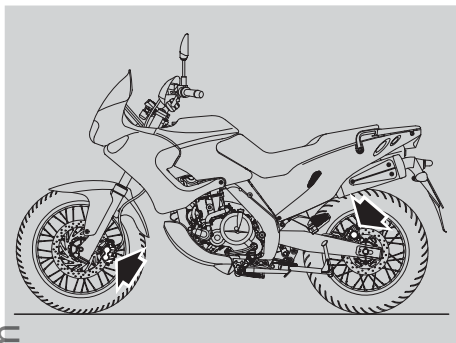
**NOTE** The cap can be closed only when the key (2) is inserted.

- ◆ With inserted key (2), close the cap by pressing it.

#### ⚠ WARNING

**Make sure that the cap is properly closed.**

- ◆ Withdraw the key (2).
- ◆ Close the flap (1).



## **DocCarMania.com** **BRAKE FLUID - recommendations**

**NOTE** This vehicle is provided with front and rear disc brakes, with separate hydraulic circuits.

The following information refers to a single braking system, but is valid for both.

### **⚠ WARNING**

**Sudden resistance or clearance problems on the brake lever may be due to troubles in the hydraulic system.**

**For any doubt regarding the perfect functioning of the braking system and in case you are not able to carry out the usual checking operations, contact your **aprilia** Official Dealer.**

### **⚠ WARNING**

**Make sure that the brake discs are neither oily nor greasy, especially after maintenance or checking operations.**

**Check that the brake cables are neither twisted nor worn out.**

**Prevent water or dust from accidentally getting into the circuit.**

**In case maintenance operations are to be performed on the hydraulic circuit, it is advisable to use latex gloves.**

**If the brake fluid gets in contact with the skin or the eyes, it can cause serious irritations.**

### **⚠ WARNING**

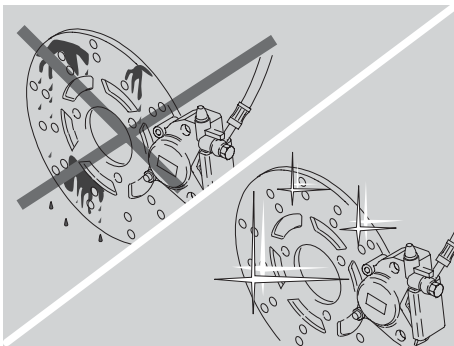
**Carefully wash the parts of your body that get in contact with the liquid. Consult a doctor or an oculist if the liquid gets in contact with your eyes.**

**DO NOT DISPOSE OF THE FLUID IN THE ENVIRONMENT.**

**KEEP AWAY FROM CHILDREN.**

### **⚠ CAUTION**

**When using the brake fluid, take care not to spill it on the plastic or painted parts, since it can damage them.**



## DISC BRAKES

### ⚠ WARNING

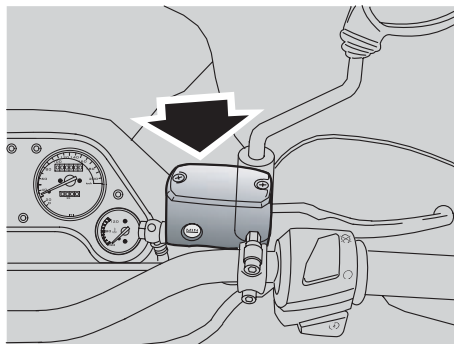
The brakes are the parts that most ensure your safety and for this reason they must always be perfectly working; check them before every trip.

A dirty disc soils the pads, with consequent reduction of the braking efficiency.

Dirty pads must be replaced, while dirty discs must be cleaned with a high-quality degreaser.

The brake fluid must be changed every two years by an **aprilia** Official Dealer.

Use brake fluid of the type specified in the lubricant chart, see p. 93 (LUBRICANT CHART).



**NOTE** This vehicle is provided with disc brakes with two, front and rear braking systems having separate hydraulic circuits.

The front braking system is with single disc (left side).

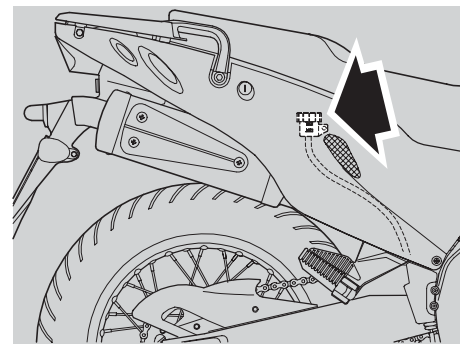
The rear braking system is with single disc (left side).

The following information refers to a single braking system, but is valid for both.

When the disc pads wear out, the level of the fluid decreases to automatically compensate for their wear.

The front brake fluid tank is positioned on the right part of the handlebar, near the front brake lever coupling.

The rear brake reservoir is positioned on the right side of the vehicle, near the rear brake control lever.



**NOTE** Carry out the maintenance operations halving the intervals indicated, if the vehicle is used in rainy or dusty areas or on uneven surfaces.

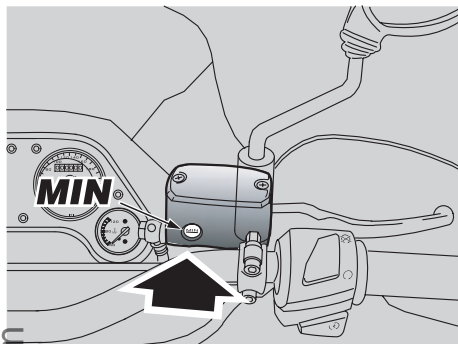
Have the brake discs checked by an **aprilia** Official Dealer after the first 1000 km (625mi) and successively every 6000 km (3750 mi).

Before departure, check the brake fluid level in the reservoirs, see p. 28 (FRONT BRAKE), p. 30 (REAR BRAKE), and the wear of the pads, see p. 71 (CHECKING THE BRAKE PAD WEAR).

Have the brake fluid changed every two years by an **aprilia** Official Dealer.

### ⚠ WARNING

**Do not use the vehicle if the braking system leaks fluid.**



## FRONT BRAKE

### CHECK

- ◆ Keep the vehicle in vertical position and turn the handlebar, so that the fluid contained in the tank is parallel to the brake fluid tank cover.
- ◆ Make sure that the fluid level exceeds the “MIN” mark.

**MIN**= minimum level

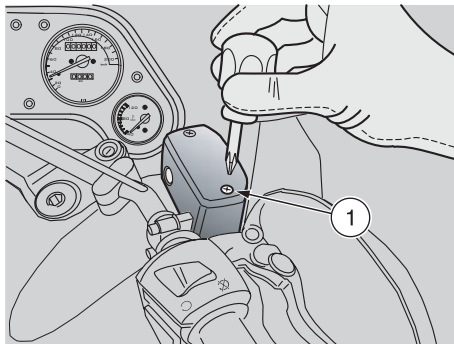
If the fluid does not reach at least the “MIN” mark:

### ⚠ CAUTION

**When the disc pads wear out, the level of the fluid decreases progressively to compensate for their wear.**

- ◆ Check the brake pad wear, see p. 71 (CHECKING THE BRAKE PAD WEAR) and the disc wear.

If the pads and/or the disc do not need replacing, provide for topping up.



### TOPPING UP

Carefully read p. 26 (BRAKE FLUID - recommendations).

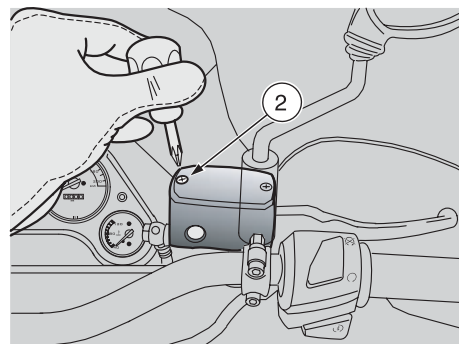
### ⚠ CAUTION

**The brake fluid may flow out of the tank. Do not operate the front brake lever if the screws (1) and (2) are loose or, most important, if the brake fluid tank cover has been removed.**

### ⚠ CAUTION

**Position a cloth under the brake reservoir, in case some fluid should be spilled.**

- ◆ Keep the vehicle in vertical position and turn the handlebar, so that the fluid contained in the tank is parallel to the brake fluid tank cover.
- ◆ Unscrew the screw (1), using a short, cross-tip screwdriver.



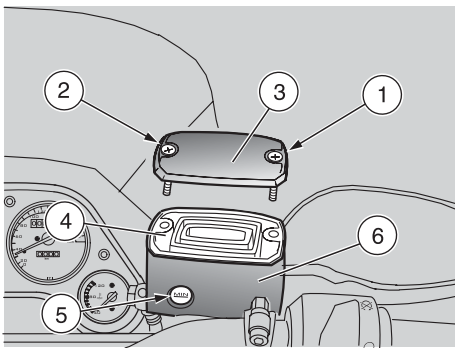
- ◆ Unscrew the screw (2).

### ⚠ WARNING

**Avoid any prolonged exposure of the brake fluid to the air.**

**The brake fluid is hygroscopic and when in contact with the air it absorbs its humidity.**

**Leave the brake fluid tank open ONLY for the time necessary for topping up.**



- ◆ Raise and remove the cover (3) together with the screws (1) and (2).
- ◆ Remove the gasket (4).

### ⚠ CAUTION

**In order not to spill the brake fluid while topping up, do not shake the vehicle.**

**Do not put additives or other substances into the fluid.**

**If you use a funnel or other similar items, make sure that they are perfectly clean.**

**NOTE** In order to reach the “MAX” level, top up until covering the glass (5) completely, with the brake fluid reservoir rim parallel to the ground.

- ◆ Top up the reservoir (6) by adding brake fluid, see p. 93 (LUBRICANT CHART), until reaching the correct level.

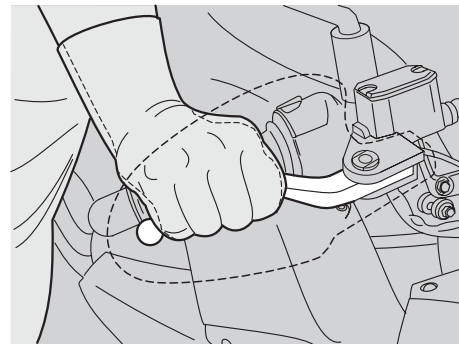


### ⚠ CAUTION

**Do not exceed the “MAX” level while topping up.**

**It is advisable to top up until reaching the “MAX” level only with new pads.**

**Do not reach the “MAX” level with worn out pads, since this will cause a fluid outflow when the pads are changed.**



- ◆ Put back the gasket (4) in its seat correctly.
- ◆ Put back the cover (3).
- ◆ Screw and tighten the screw (2).
- ◆ Screw and tighten the screw (1).

### ⚠ WARNING

**Check the braking efficiency.**

**In case of excessive stroke of the brake lever or reduced efficiency of the braking system, contact an **aprilia** Official Dealer, since it may be necessary to bleed the system.**



## REAR BRAKE

### CHECK

- ◆ Remove the right side panel, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).
- ◆ Keep the vehicle in vertical position.
- ◆ Make sure that the fluid level exceeds the “MIN” mark.

**MIN**= minimum level

**MAX**= maximum level

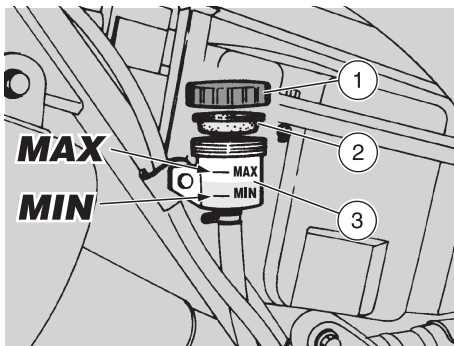
If the fluid does not reach at least the “MIN” mark:

### ⚠ CAUTION

**When the disc pads wear out, the level of the fluid decreases progressively to compensate for their wear.**

- ◆ Check the brake pad wear, see p. 71 (CHECKING THE BRAKE PAD WEAR) and the disc wear.

If the pads and/or the disc do not need replacing, provide for topping up.



### TOPPING UP

Carefully read p. 26 (BRAKE FLUID - recommendations).

### ⚠ CAUTION

The brake fluid may flow out of the tank. Do not pull the rear brake lever if the brake fluid tank cover has been removed.

### ⚠ WARNING

Avoid any prolonged exposure of the brake fluid to the air.

The brake fluid is hygroscopic and when in contact with the air it absorbs its humidity.

Leave the brake fluid tank open **ONLY** for the time necessary for topping up.

- ◆ Unscrew and remove the plug (1).
- ◆ Remove the gasket (2).

### ⚠ CAUTION

In order not to spill the brake fluid while topping up, keep the fluid in the tank parallel to the tank rim (in horizontal position).

Do not put additives or other substances into the fluid.

If you use a funnel or other similar items, make sure that they are perfectly clean.

- ◆ Fill the tank (3) with brake fluid, see p. 93 (LUBRICANT CHART), until reaching the correct level between the “MIN” and “MAX” marks.

### ⚠ CAUTION

It is advisable to top up until reaching the “MAX” level only with new pads.

Do not reach the “MAX” level with worn out pads, since this will cause a fluid outflow when the pads are changed.

Check the braking efficiency.

In case of excessive stroke of the brake lever or reduced efficiency of the braking system, contact an **aprilia** Official Dealer, since it may be necessary to bleed the system.

## COOLANT

### ⚠ CAUTION

Do not use the vehicle if the coolant is below the minimum prescribed level "MIN".

**NOTE** Carry out the maintenance operations halving the intervals indicated, if the vehicle is used in rainy or dusty areas or on uneven surfaces.

Before departure, check the coolant level, see p. 32 (CHECKING AND TOPPING UP); have the coolant changed every two years: for this operation, contact an **aprilia** Official Dealer.

### ⚠ WARNING

**The coolant is noxious: do not swallow it; if the coolant gets in contact with the skin or the eyes, it can cause serious irritations.**

**If the fluid gets in contact with your skin or eyes, rinse with plenty of water and consult a doctor. If it is swallowed, induce vomit, rinse mouth and throat with plenty of water and consult a doctor without delay.**

**KEEP AWAY FROM CHILDREN.**

**DO NOT DISPOSE OF THE FLUID IN THE ENVIRONMENT.**

### ⚠ WARNING

**Be careful not to spill the coolant on the red-hot parts of the engine: it may catch fire and send out invisible flames.**

**In case any maintenance operation should be required, it is advisable to use latex gloves.**

### ⚠ CAUTION

**Have the pads changed by your **aprilia** Official Dealer.**

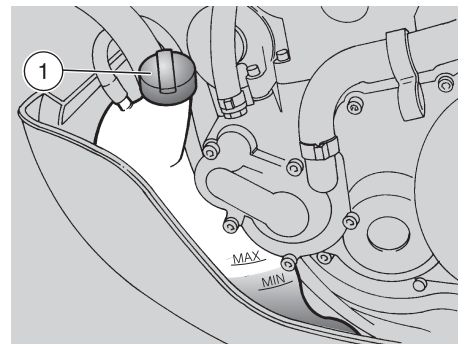
The coolant is composed of 50% water and 50% antifreeze.

This mixture is ideal for most running temperatures and ensures good protection against corrosion.

It is advisable to keep the same mixture also in the hot season, since in this way losses due to evaporation are reduced and it is not necessary to top up very frequently.

The mineral salt deposits left in the radiator by evaporated water are thus reduced and the efficiency of the cooling system remains unchanged.

If the outdoor temperature is below 0°, check the cooling circuit frequently and if necessary increase the antifreeze concentration (up to maximum 60%).

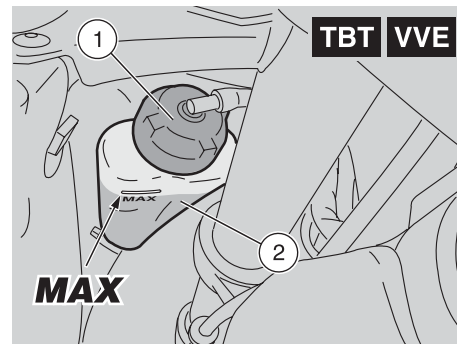
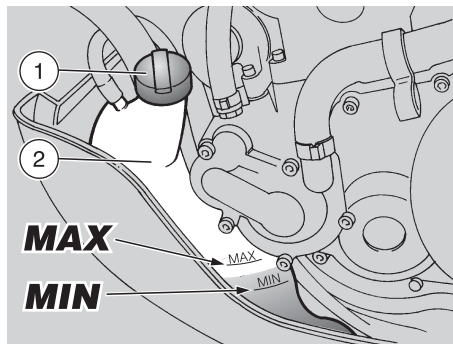
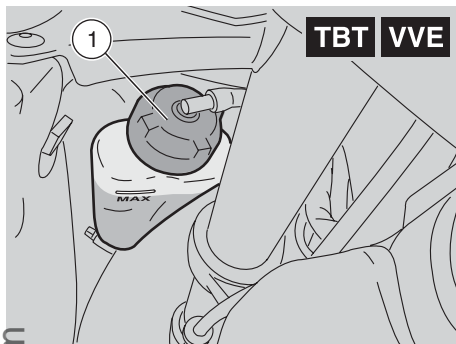


For the cooling solution use distilled water, in order not to damage the engine.

### ⚠ WARNING

**Do not remove the expansion tank plug (1) when the engine is hot, since the coolant is under pressure and its temperature is high.**

**If it gets in contact with the skin or with clothes it may cause severe burns and/or damage.**



## CHECKING AND TOPPING UP

### ⚠ WARNING

Check the coolant level and top up the expansion tank with cold engine.

- ◆ Stop the engine and wait until it has cooled down.
- ◆ Keep the vehicle in vertical position, with the two wheels resting on the ground.
- ◆ **Not present** **TBT** **VVE**. Make sure that the level of the fluid contained in the expansion tank (2) is included between the "MAX" and "MIN".

**MAX**= maximum level

**MIN**= minimum level

- ◆ **TBT** **VVE**. The level is correct if it approximately reaches "MAX" mark.

If not, proceed as follows:

- ◆ Unscrew and remove the filling cap (1).

### ⚠ WARNING

The coolant is noxious: do not swallow it; if the coolant gets in contact with the skin or the eyes, it can cause serious irritations.

Do not use your fingers or any other object to check if there is enough coolant.

### ⚠ CAUTION

Do not put additives or other substances into the fluid.

If you use a funnel or other similar items, make sure that they are perfectly clean.

- ◆ Top up the expansion tank by adding coolant, see p. 93 (LUBRICANT CHART), until this almost reaches the "MAX" level. Do not exceed this level, otherwise the fluid will flow out while the engine is running.
- ◆ Put back the filling cap (1).

### ⚠ CAUTION

In case of excessive consumption of coolant and in case the tank remains empty, make sure that there are no leaks in the circuit. Have it repaired by an **aprilia** Official Dealer.

## TYRES

This vehicle is provided with tyres with tube.

**NOTE** Carry out the maintenance operations halving the intervals indicated, if the vehicle is used in rainy or dusty areas or on uneven surfaces.

### **⚠ WARNING**

Check the inflation pressure at room temperature every two weeks.

Check the conditions of the tyres and the inflation pressure at room temperature every 1000 km (625 mi), see p. 90 (TECHNICAL DATA).

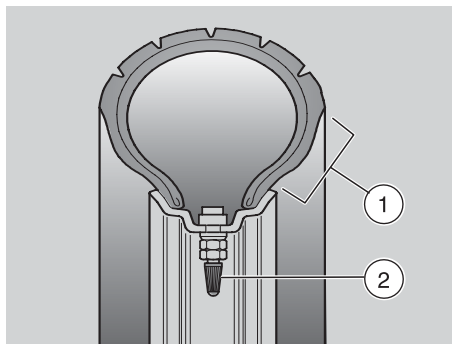
### **⚠ WARNING**

Periodically check the tyre inflation pressure at room temperature, see p. 90 (TECHNICAL DATA).

If the tyres are hot, the measurement is not correct.

Carry out the measurement especially before and after long rides.

If the inflation pressure is too high, the ground unevenness cannot be dampened and is therefore transmitted to the handlebar, thus compromising the driving comfort and reducing the road holding during turns.



If, on the contrary, the inflation pressure is too low, the tyre sides (1) are under greater stress and the tyre itself may slip on the rim or it may become loose, with consequent loss of control of the vehicle.

In case of sudden braking the tyres could even come off the rims.

Further, the vehicle could skid while turning.

### **⚠ WARNING**

Check the surface and the wear of the tyres, since tyres in bad conditions can impair both the grip and the controllability of the vehicle.

Some types of tyres homologated for this vehicle are provided with wear indicators.

There are several kinds of wear indicators. For more information on how to check the wear, contact your Dealer.

Visually check if the tyres are worn and in this case have them changed.

Change the tyre when it is worn out or in case of puncture on the tread side, if the puncture is larger than 5 mm.

After repairing a tyre, have the wheels balanced.

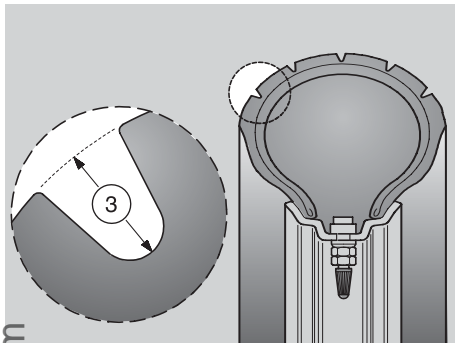
### **⚠ WARNING**

The tyres must be replaced with other tyres of the type and model recommended by the manufacturer, see p. 90 (TECHNICAL DATA); the use of tyres different from those prescribed may adversely affect the manoeuvrability of the vehicle.

Do not install tyres with air tube on rims for tubeless tyres and viceversa.

Make sure that the inflation valves (2) always have their sealing caps on, to prevent the tyres from suddenly going flat.

Change, repair, maintenance and balancing operations are very important and therefore they must be performed by qualified technicians with appropriate tools.



### ⚠ WARNING

For this reason, it is advisable to have the above mentioned operations carried out by an **aprilia** Official Dealer or by a qualified tyre repairer.

If the tyres are new, they may still be covered with a slippery film: drive carefully for the first miles. Do not oil the tyres with unsuitable fluids. If the tyres are old, even if not completely worn out, they may become hard and may not ensure good road holding. In this case, replace them.

#### MINIMUM TREAD DEPTH LIMIT (3):

front and rear 2 mm and in any case not less than prescribed by the regulations in force in the country where the vehicle is used.

## ENGINE OIL

### ⚠ WARNING

Engine oil may cause serious damage to the skin if handled daily and for long periods.

Wash your hands carefully after use.


KEEP AWAY FROM CHILDREN.

DO NOT DISPOSE OF THE OIL IN THE ENVIRONMENT.

Put it in a sealed container and take it to the filling station where you usually buy it or to an oil salvage center.

In case any maintenance operation should be required, it is advisable to use latex gloves.

### ⚠ CAUTION

If the engine oil pressure warning light “,” comes on during the normal operation of the engine, this means that the engine oil pressure in the circuit is insufficient.

In this case, check the engine oil level, see p. 55 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP); if the level isn't correct, stop the engine immediately and contact an **aprilia** Official Dealer.



### ⚠ CAUTION

Proceed with care.

Do not spill the oil!

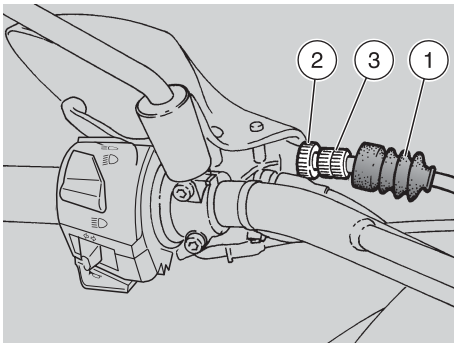
Take care not to smear any component, the area in which you are working and the surrounding area. Carefully remove any trace of oil.

In case of leakages or malfunctions, contact an **aprilia** Official Dealer.

Periodically check the engine oil level, see p. 55 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP).

For the engine oil change, see p. 52 (REGULAR SERVICE INTERVALS CHART).

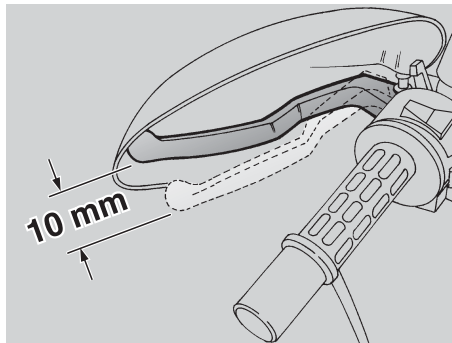
**NOTE** Use high-quality 5W – 40 oil, see p. 93 (LUBRICANT CHART).



## CLUTCH

### ADJUSTING THE CLUTCH

Adjust the clutch after the first 1000 km (625 mi) and successively every 6000 km (3750 mi) and when the engine stops or the vehicle (with pulled clutch lever and gears on) tends to move forward, or if the clutch slips, causing a delay in the acceleration with respect to the engine rpm.



For the adjustment, proceed as follows:

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Withdraw the protection element (1).
- ◆ Loosen the lock nut (2).
- ◆ Rotate the adjuster (3), until the idle stroke of the clutch lever is about 10 mm.
- ◆ Tighten the lock nut (2) and check the adjustment again.
- ◆ Start the engine, see p. 41 (STARTING).
- ◆ Pull the clutch control lever completely and engage the 1st gear.

Make sure that the engine does not stop, that the vehicle does not tend to move forward, or that the clutch does not slip during the acceleration phase or while the vehicle is running.

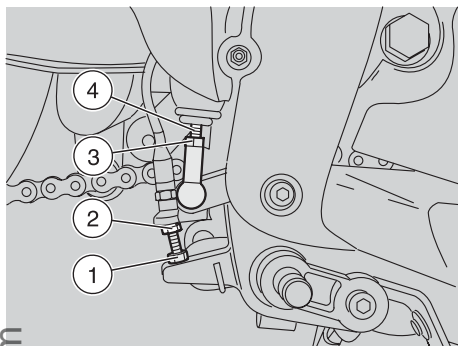


### ⚠ WARNING

If it is not possible to obtain a correct adjustment or if the clutch does not function properly, contact your **aprilia** Official Dealer.

### ⚠ CAUTION

Make sure that the clutch control cable is intact: the inner cable and outer sheat must not be worn or flattened at any point.

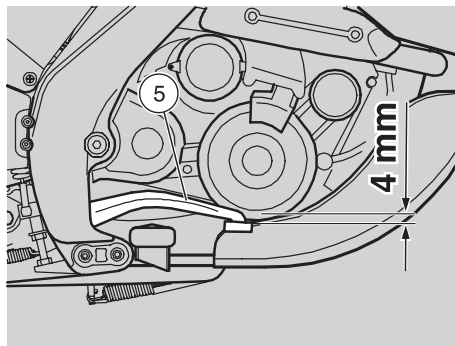


## ADJUSTING THE REAR BRAKE CONTROL LEVER CLEARANCE

The brake control lever is positioned ergonomically during the assembly of the vehicle.

If necessary, it is possible to adjust the brake control lever clearance:

- ◆ Loosen the lock nut (1).
- ◆ Screw the brake adjuster (2) completely.
- ◆ Screw the lock nut (3) completely on the pump control rod (4).
- ◆ Screw the pump control rod (4) completely, then unscrew it by giving 3 – 4 turns.
- ◆ Screw the brake adjuster (2) until the brake pedal reaches the desired height.
- ◆ Lock the brake adjuster (2) by means of the lock nut (1).
- ◆ Unscrew the pump control rod (4) and bring it in contact with the pump piston.



- ◆ Screw the rod in order to ensure a minimum clearance of **0.5 – 1 mm** between the pump control rod (4) and the pump piston.

### ⚠ CAUTION

**Make sure that there is a certain idle stroke in the movement of the lever (5), to prevent the brake from remaining applied and the consequent untimely wear of the braking elements.**

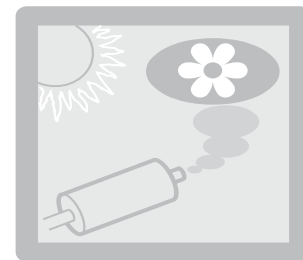
**Lever (5) idle stroke: 4 mm (measured at the lever end).**

- ◆ Lock the pump control rod (4) by means of the lock nut (3).

### ⚠ CAUTION

**After the adjustment, make sure that the wheel rotates freely with released brake.**

**Check the braking efficiency.  
If necessary, contact your **aprilia** Official Dealer.**



## CATALYTIC EXHAUST SILENCERS



**NOTE** The following information refers to a single exhaust silencer, but is valid for both.

### ⚠ WARNING

**Avoid parking the vehicle catalytic version near dry brush wood or in places easily accessible to children, as the catalytic silencer becomes extremely hot during use; be very careful and avoid any kind of contact before it has completely cooled down.**

The catalytic vehicle is fitted with a silencer with metal catalytic converter of the “platinum-rhodium bivalent” type.

This device provides for the oxidation of the CO (carbon monoxide) and of the HC (unburned hydrocarbons) contained in the exhaust gases, changing them into carbon dioxide and steam, respectively.

### ⚠ CAUTION

**Do not use leaded petrol, since it causes the destruction of the catalytic converter.**

## EXHAUST SILENCERS

### ⚠ WARNING

**Tampering with the noise control system is prohibited.**

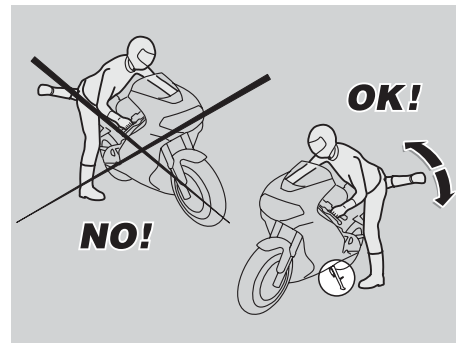
Owners are warned that the law may prohibit:

- the removal or rendering inoperative by any person, other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle – for the purpose of noise control – prior to its sale or delivery to the ultimate purchaser or while it is in use;
- the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Check the exhaust silencer and the silencer pipes, making sure that there are neither signs of rust, nor holes and that the exhaust system works effectively.

If the noise produced by the exhaust system increases, immediately contact your **aprilia** Official Dealer.

## INSTRUCTIONS FOR USE



### GETTING ON AND OFF THE VEHICLE

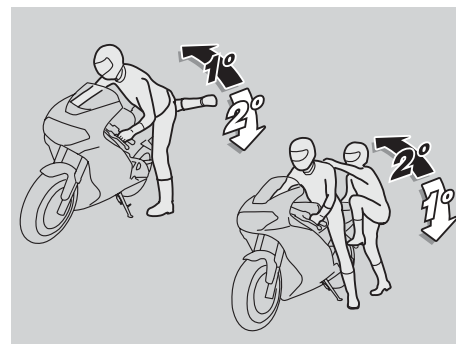
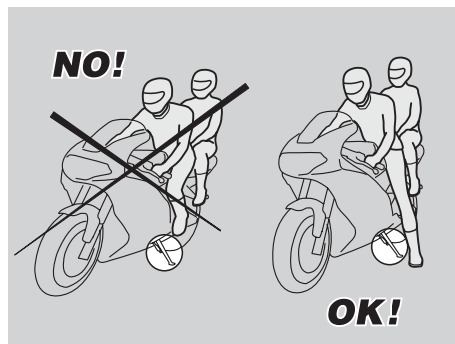
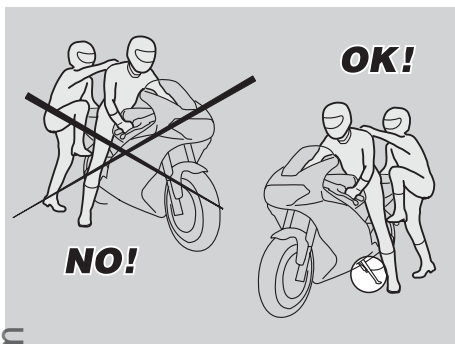
The instructions below must be followed with the maximum care in order to avoid any injury to persons and damage to property and to the vehicle, caused by the falling of the rider or the passenger from the vehicle and/or the falling or overturning of the vehicle itself.

### ⚠ WARNING

**Risk of falling and overturning. Proceed with care.**

The operations and movements required to get on and off the vehicle must be performed with complete freedom of movement and with the hands free from obstruction caused by holding objects, the helmet, gloves or glasses.

The vehicle is provided with two stands: centre stand and side stand.



### ⚠ CAUTION

**Do not start the engine with the vehicle positioned on the centre stand. Engaging the gears may make you lose control of the vehicle.**

**Do not get on or let the passenger get on the vehicle if this is positioned on the centre stand.**

**It is forbidden to position the vehicle on the centre stand while seated astride the vehicle in riding position.**

Get on and off the vehicle only from the left side and always with extended side stand.

### ⚠ CAUTION

**Do not apply the load of your weight or of the passenger's weight onto the side stand.**

The stand has been designed to support the weight of the vehicle and a minimum load, without the rider and the passenger.

Getting on the vehicle into the riding position with extended side stand is permitted only for the purpose of preventing the vehicle from falling or overturning and does not envision the loading of the weight of the rider and passenger onto the side stand.

While getting on and off, the weight of the vehicle may cause an unbalance and the consequent loss of equilibrium, and the vehicle may fall or overturn.

**NOTE** The rider must always be the first person to get on the vehicle and the last to get off and it is the rider who controls the balance and stability of the vehicle when the passenger gets on and off.

When getting on and off the vehicle, the passenger must make careful movements, in order to maintain the balance of the vehicle and the rider.

**NOTE** The rider is responsible for instructing the passenger how to safely get on and off the vehicle.

The vehicle is equipped with special passenger footrests to make it easier to get on and off the vehicle. The passenger must always use the left footrest to get on and off the vehicle.

Neither get off, nor try to get off the vehicle by jumping or stretching your leg down to the ground. In both cases this would compromise the stability and balance of the vehicle.

**NOTE** Bags or objects strapped to the rear of the vehicle can represent an obstacle while getting on and off.

In any case, perform a controlled movement with your right leg, which must avoid striking and safely pass the rear part of the fairing or the luggage without creating unbalance.

## GETTING ON THE VEHICLE

- ◆ Grasp the handlebar correctly and get on the vehicle without loading your weight onto the side stand.

**NOTE** If it is impossible for you to place both feet on the ground, place the right foot on the ground (in case of unbalance, the left side of the vehicle is prevented from falling over by the side stand) and keep the left foot ready to rest on the ground.

- ◆ Place both feet on the ground and straighten the vehicle into riding position while keeping it in balance.

**NOTE** The rider must not extract or attempt to extract the passenger footrest while seated astride the vehicle, because this might compromise the stability and balance of the vehicle.

- ◆ Have the passenger extract the two passenger footrests.
- ◆ Instruct the passenger how to safely get on the vehicle.
- ◆ Kick the side stand completely back using your left foot.

## GETTING OFF THE VEHICLE

- ◆ Choose a suitable parking area, see p. 48 (PARKING).
- ◆ Stop the vehicle, see p. 48 (STOPPING).

### ⚠ CAUTION

**Make sure that the parking surface is free from obstacles, firm and flat.**



- ◆ With the left shoe heel, extend the side stand completely by acting on the appropriate lever.

**NOTE** If it is impossible for you to place both feet on the ground, place the right foot on the ground (in case of unbalance, the left side of the vehicle is prevented from falling over by the side stand) and keep the left foot ready to rest on the ground.

- ◆ Place both feet on the ground, keeping the vehicle in balance in riding position.
- ◆ Instruct the passenger how to safely get off the vehicle.

### ⚠ CAUTION

**Risk of falling and overturning.**

**Make sure that the passenger has got off the vehicle.**

**Do not load your weight onto the side stand.**

- ◆ Incline the vehicle until the stand rests on the ground.
- ◆ Grasp the handlebar correctly and get off the vehicle.
- ◆ Rotate the handlebar completely leftwards.
- ◆ Lift the passenger footrests.

### ⚠ CAUTION

**Make sure that the vehicle is stable.**

## PRELIMINARY CHECKING OPERATIONS

### ⚠ WARNING

**Before departure, always carry out a preliminary checking of the vehicle to make sure that it functions correctly and safely, see the table (PRELIMINARY CHECKING OPERATIONS).**

**The non-performance of these checking operations can cause severe personal injuries or damages to the vehicle.**

Do not hesitate to consult your **aprilia** Official Dealer in case there is something you do not understand about the functioning of some controls or in case you suspect or discover some irregularities.

It does not take long to carry out a check-up and this operation ensures you much more safety.

## PRELIMINARY CHECKING OPERATIONS

Component	Check	Page
Front and rear disc brakes	Check the functioning, the idle stroke of the control levers, the fluid level and make sure there are no leaks. Check the wear of the pads. If necessary, top up the fluid tank.	26 (BRAKE FLUID - recommendations), 27 (DISC BRAKES), 28 (FRONT BRAKE), 30 (REAR BRAKE), 71 (CHECKING THE BRAKE PAD WEAR)
Accelerator	Make sure that it works smoothly and that it is possible to open and close it completely, in all steering positions. If necessary, adjust and/or lubricate it.	73 (ADJUSTING THE ACCELERATOR CONTROL)
Engine oil	Check and/or top up if necessary.	34 (ENGINE OIL), 55 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP)
Wheel/tyres	Check the tyre surface, the inflation pressure, wear and tear and any damage. Remove any foreign matter that may be stuck in the tread grooves.	33 (TYRES)
Brake levers	Make sure that they work smoothly. Lubricate the articulations and adjust the stroke if necessary.	36 (ADJUSTING THE REAR BRAKE CONTROL LEVER CLEARANCE)
Clutch	The idle stroke at the end of the clutch lever must be approximately 10 mm; the clutch must work without jerking and/or slipping.	35 (CLUTCH)
Steering	Make sure that the steering rotates smoothly, without any clearance or slackening.	—
Side stand and centre stand <small>OPT</small> (supplied as standard equipment in the countries where required)	Make sure that it operates correctly. Make sure that when the stand is let up or down there is no friction and that the spring tension brings it back to its normal position. If necessary, lubricate joints and hinges. Make sure that the safety switch operates correctly.	80 (CHECKING THE SWITCHES)
Fastening elements	Make sure that the fastening elements are not loose. If necessary, adjust or tighten them.	—
Drive chain	Check the slack.	62 (DRIVE CHAIN)
Fuel tank	Check the fuel level and top up, if necessary. Check the circuit for leaks. Make sure that the fuel cap is correctly closed.	24 (FUEL)
Coolant	The coolant level in the expansion tank must be included between the "MAX" and "MIN" marks.	31 (COOLANT), 32 (CHECKING AND TOPPING UP)
Engine stop switch <small>(○ - ⊗)</small>	Make sure that it operates correctly.	16 [ENGINE STOP SWITCH (○ - ⊗)]
Lights, warning lights LED, horn, rear brake light switch and electric devices	Check the proper functioning of the acoustic and visual devices. Change the bulbs or intervene in case of failure.	76 (BATTERY) – 86 (CHANGING THE NUMBER PLATE BULB)



## STARTING

### ⚠ WARNING

**Do not position any object inside the front part of the fairing (between the handlebar and the dashboard), in order not to hinder the rotation of the handlebar and visibility toward the dashboard.**

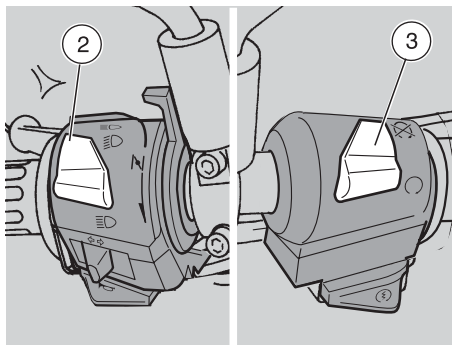
**NOTE** Before starting the engine, carefully read chapter “safe drive”, see p. 5 (SAFE DRIVE).

### ⚠ WARNING

**Exhaust gases contain carbon monoxide, which is extremely noxious if inhaled.**

**Avoid starting the engine in closed or badly-ventilated rooms.**

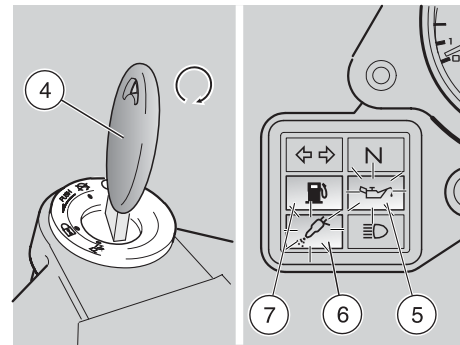
**The non-observance of this warning may cause loss of consciousness or even lead to death by asphyxia.**



**NOTE** With the side stand down, the engine can be started only if the gears are in neutral; in this case, if you try to engage the gears, the engine stops.

With the side stand up, it is possible to start the engine either in neutral gear or with engaged gears and pulled in clutch lever.

- ◆ Get on the vehicle in riding position, see p. 37 (GETTING ON AND OFF THE VEHICLE).
- ◆ Make sure that the stand is completely up.
- ◆ Make sure that the dimmer switch (2) is in position “ ”.
- ◆ Move the engine stop switch (3) to position “ ”.
- ◆ Rotate the key (4) and move the ignition switch to position “ ”.



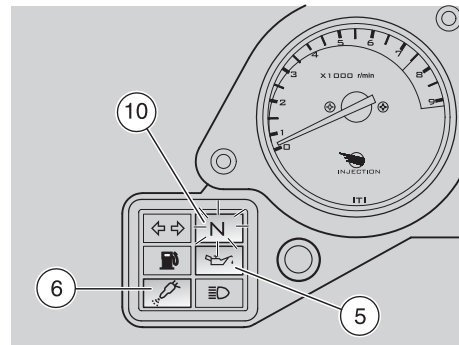
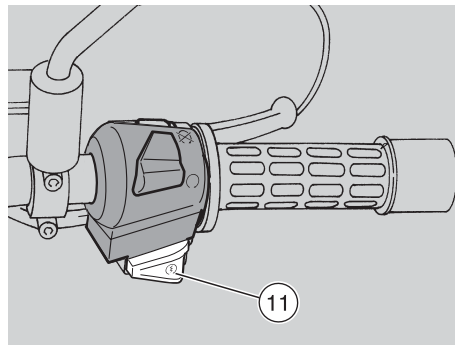
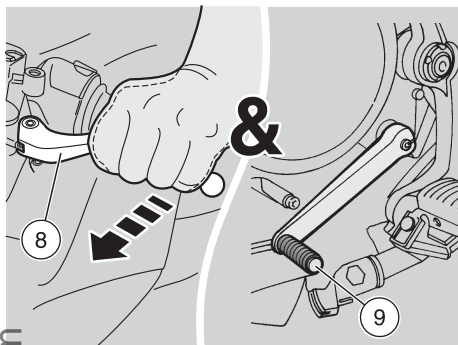
At this point the following lights come on on the dashboard:

- the engine oil pressure warning light “ ” (5) (which will remain on until the engine is started);
- the diagnostic warning light “ ” (6) (which will remain on for a few seconds after the engine start).

The fuel pump will pressurize the fuel supply circuit, sending out a hum for about three seconds.

### ⚠ CAUTION

**If the low fuel warning light “ ” (7) comes on on the dashboard, provide for topping up as soon as possible, see p. 24 (FUEL).**



- ◆ Operate the front brake lever completely.
- ◆ Pull the clutch lever (8) completely and shift the gearbox lever (9) into neutral [green warning light “N” (10) on].

**NOTE** If the room temperature is low (near to or lower than 0°C), see p. 43 (STARTING WITH COLD ENGINE).

### ⚠ CAUTION

To avoid excessive consumption of the battery, do not keep the start push button “(3)” pressed for more than fifteen seconds.

If the engine does not start in this lapse of time, wait ten seconds and press the start push button “(3)” again.

- ◆ Press the start push button “(3)” (11) without accelerating and release it as soon as the engine starts.

### ⚠ CAUTION

**Avoid pressing the start push button “(3)” (11) when the engine is running, since you may damage the starter.**

If the engine oil pressure warning light “(5)” (5) remains on, or if it comes on during the normal operation of the engine, this means that the oil pressure in the circuit is insufficient.

In this case, stop the engine immediately and contact an **aprilia** Official Dealer.

- ◆ Keep at least one brake lever pulled and do not accelerate until you start.

### ⚠ CAUTION

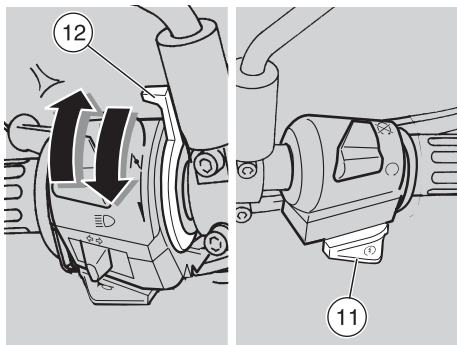
**Never leave abruptly with cold engine.**

To reduce the emission of polluting substances and the consumption of fuel, warm the engine up by proceeding at low speed for the first miles.

### ⚠ CAUTION

If the diagnostic warning light “(6)” (6) comes on on the dashboard during the normal operation of the engine, this means that the electronic unit has detected an anomaly.

In many cases the engine keeps running with limited functions; contact an **aprilia** Official Dealer immediately.

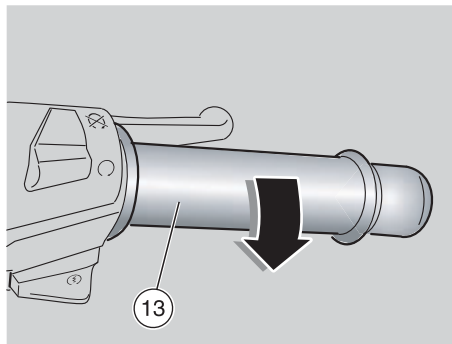


### STARTING WITH COLD ENGINE

When the room temperature is low (about 0°C), it may be difficult to start the engine at the first attempt.

#### In this case:

- ◆ Rotate the cold start lever “I↘” (12) downwards.
- ◆ Insist for at least ten seconds with the start push button “③” (11) pressed and at the same time moderately rotate the throttle grip (13).

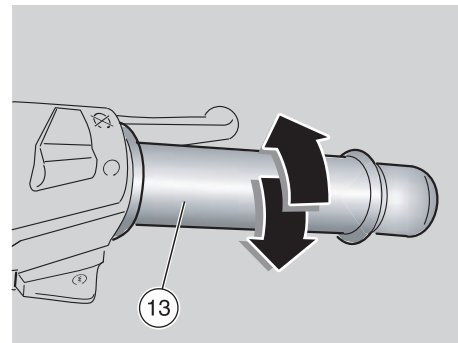
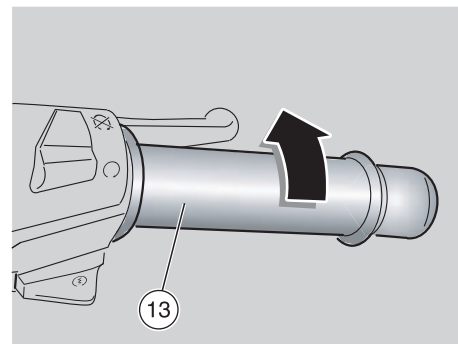


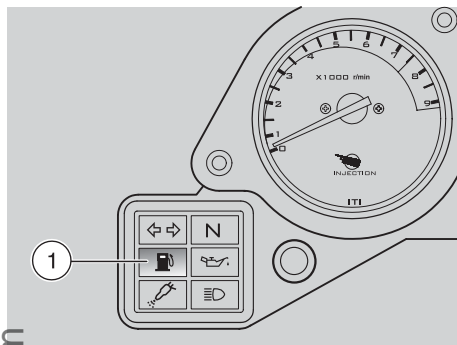
#### If the engine starts.

- ◆ Release the start push button “③” (11) and the throttle grip (13).
- ◆ Rotate the cold start lever “I↗” (12) upwards.
- ◆ If the idling is unstable, twist the throttle grip (13) slightly and frequently.

#### If the engine does not start.

Wait a few seconds and repeat the cold START PROCEDURE.





## DEPARTURE AND DRIVE

### ⚠ WARNING

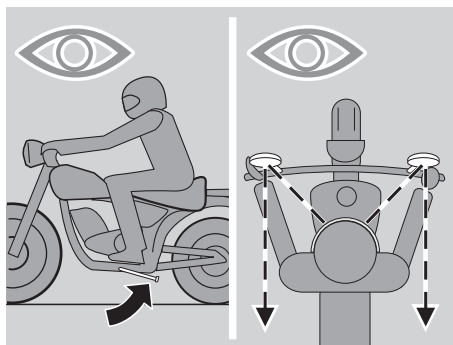
Do not position any object inside the front part of the fairing (between the handlebar and the dashboard), in order not to hinder the rotation of the handlebar and visibility toward the dashboard.

**NOTE** Before departure, carefully read the “safe drive” chapter, see p. 5 (SAFE DRIVE).

### ⚠ CAUTION

If the low fuel warning light “” (1) positioned on the dashboard comes on while the vehicle is running, this means that 5 ℓ of fuel are still available in the tank.

Provide for topping up as soon as possible, see p. 24 (FUEL).



### ⚠ WARNING

If you drive without passenger, make sure that the passenger footrests are folded.

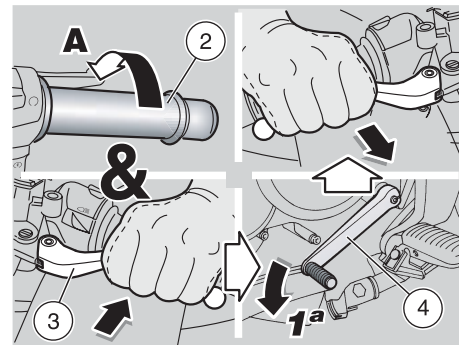
While riding, keep your hands on the grips and your feet on the footrests.

**NEVER RIDE IN ANY POSITION OTHER THAN THOSE INDICATED.**

### ⚠ WARNING

If you drive with a passenger, instruct him/her so that he/she does not create problems during manœuvres.

Before leaving, make sure that the stand is completely up.



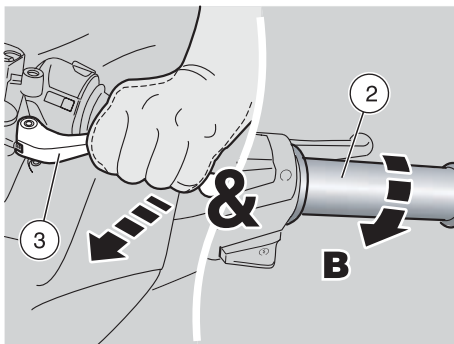
To leave:

- ◆ Start the engine, see p. 41 (STARTING).
- ◆ Adjust the inclination of the rear-view mirrors correctly.

### ⚠ CAUTION

With the vehicle at rest, try to get acquainted with the use of the rear-view mirrors. The reflecting surface is convex, therefore the objects seem to be farther away than they actually are. These mirrors offer a “wide-angle” view and only experience will allow you to evaluate the distance of the following vehicles correctly.

- ◆ With released throttle grip (2) (Pos.A) and engine idling, pull the clutch lever (3) completely.
- ◆ Engage the first gear, by pushing the gear lever (4) downwards.
- ◆ Release the brake lever (pulled on the starting).

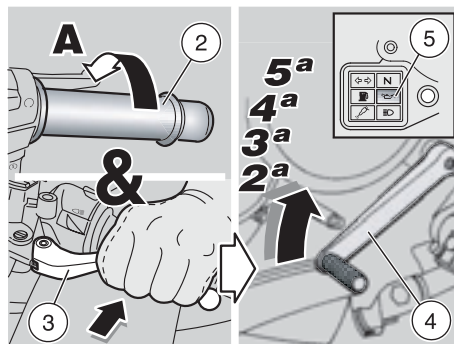


### ⚠ WARNING

On departure, the abrupt release of the clutch lever may cause the engine to stall or the vehicle to jerk forwards.

Never accelerate abruptly or excessively when releasing the clutch lever, in order to prevent the clutch from “slipping” (slow release) or the front wheel from raising “rearing up” (quick release).

- ◆ Slowly release the clutch lever (3) and at the same time accelerate by slightly turning the throttle grip (2) (**Pos.B**). The vehicle will start moving.
- ◆ Ride at reduced speed for the first miles, in order to warm the engine up.



### ⚠ CAUTION

Never exceed the recommended rpm, see p. 47 (**RUNNING-IN**).

- ◆ Increase the speed by gradually rotating the throttle grip (2) (**Pos.B**), without exceeding the recommended rpm, see p. 47 (**RUNNING-IN**).

To engage the second gear:


### ⚠ CAUTION

Proceed quickly.

Never ride the vehicle at too low rpm.

- ◆ Release the throttle grip (2) (**Pos.A**), pull the clutch lever (3) and lift the shifting lever (4). Release the clutch lever (3) and accelerate.
- ◆ Repeat the last two operations and shift up.

### ⚠ CAUTION

If the engine oil pressure warning light “” (5) comes on during the normal operation of the engine, this means that the engine oil pressure in the circuit is insufficient.

In this case, stop the engine immediately and contact an **aprilia** Official Dealer.

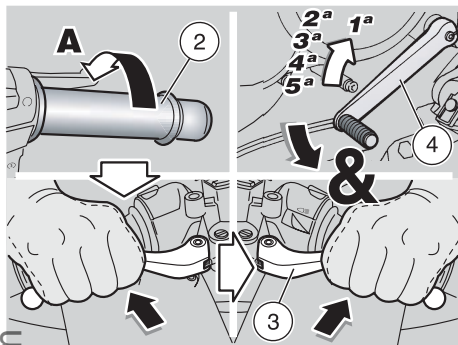
The downshifting should be carried out in the following situations:

- ◆ When riding downhill or when braking, in order to increase the braking action by using the compression of the engine.
- ◆ When riding uphill, if the gear engaged is not suitable to the speed (high gear, moderate speed) and the engine rpm decreases.

### ⚠ CAUTION

Shift the gears one by one; the simultaneous downshifting of more than one gear may make you exceed the maximum rpm (red line).


Before and during the downshifting, release the throttle grip and decelerate, in order to avoid the “red line”.




**To shift down, proceed as follows:**


- ◆ Release the throttle grip (2) (**Pos.A**).
- ◆ If necessary, pull the brake levers moderately and decrease the speed of the vehicle.
- ◆ Pull the clutch lever (3) and lower the shifting lever (4) to shift down.
- ◆ If the brake levers are pulled, release them.
- ◆ Release the clutch lever and accelerate moderately.

### **⚠ CAUTION**

If the pointer on the coolant temperature indicator indicates a temperature over 120 °C, stop the vehicle and let the engine idle for approximately two minutes, thus permitting the regular circulation of the coolant in the system; at this point, position the engine stop switch on “” and check the coolant level, see p. 31 (**COOLANT**).

If the situation on the dashboard remains the same after the coolant level has been checked, do not start the vehicle and contact an **aprilia** Official Dealer.

Do not position the ignition key on “”, since the cooling fan would stop independently of the coolant temperature and in this case the temperature would increase even further.

If the diagnostic warning light “” comes on on the dashboard during the normal operation of the engine, this means that the electronic unit has detected an anomaly.

In many cases the engine keeps running with limited functions; contact an **aprilia** Official Dealer immediately.

To avoid the overheating of the clutch, keep the engine running with vehicle at rest, engaged gears and pulled clutch lever for the shortest possible time.

### **⚠ WARNING**

Avoid opening and closing the throttle grip repeatedly and continuously, so that you do not accidentally lose control of the vehicle. If you have to brake, close the throttle and put on both brakes in order to obtain uniform deceleration, properly exerting pressure on the braking parts.

By putting on the front brake only or the rear brake only, you reduce the braking force considerably, thus running the

risk of locking one wheel and consequently losing grip.

If you stop uphill, decelerate completely and use the brakes only to keep the vehicle steady.

The use of the engine to keep the vehicle steady may cause the overheating of the clutch.

Before beginning to turn, slow down or brake driving at moderate and constant speed or accelerating slightly; avoid braking at the last moment: it would be very easy to skid.

If the brakes are operated continuously on downhill stretches, the friction surfaces may overheat, thus reducing the braking efficiency. Exploit the engine compression and shift down by putting on both brakes intermittently. Never drive downhill with the engine off!

When visibility is insufficient, switch on the low beam even during the day, in order to make your vehicle more visible. In case of wet ground or scarce wheel grip (snow, ice, mud, etc.), drive slowly, avoiding sudden brakings or manoeuvres that could make you lose grip and fall down.

**⚠ WARNING**

Pay the utmost attention to any obstacle or variation of the ground.

Uneven roads, rails, manhole covers, indications painted on the road surface, building site metal plates become rather slippery by rain. For this reason all these obstacles have to be carefully avoided, driving smoothly and leaning the vehicle as little as possible.

**Always use the turn indicators in time when you intend to change lane or direction, avoiding sharp and dangerous movements.**

**Switch off the direction indicators as soon as you have changed direction.**

**Be extremely careful when you overtake other vehicles or are overtaken.**

**In case of rain, the water cloud created by big vehicles reduces visibility; the air shift may make you lose control of the vehicle.**

**RUNNING-IN**

The running-in of the engine is essential to ensure its duration and correct functioning. If possible, drive on hilly roads and/or roads with many bends, so that the engine, the suspensions and the brakes undergo a more effective running-in.

During running-in, change speed.

In this way the components are first “loaded” and then “relieved” and the engine parts can thus cool down. Even if it is important to stress the engine components during running-in, take care not to exceed.

**NOTE** Only after the first 2000 km (1250 mi) of running-in you can expect the best performance levels from the vehicle.

**Keep to the following indications:**

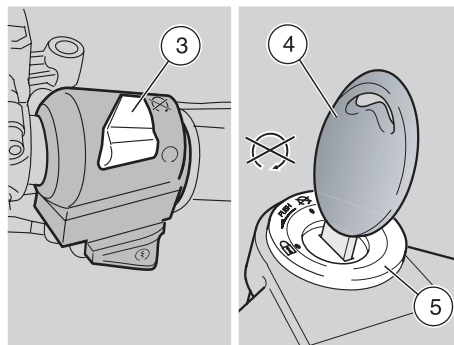
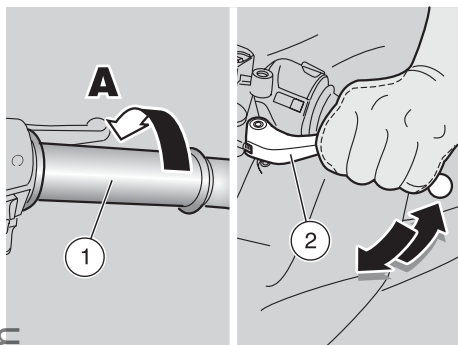
- ◆ Do not open the throttle completely if the speed is low, both during and after the running-in.
- ◆ During the first 500 km (312 mi) put on the brakes with caution, avoiding sharp and prolonged brakings. This ensures a correct bedding-in of the pads on the brake disc.
- ◆ During the first 500 km (312 mi) never exceed 4000 rpm.
- ◆ When the total number of km covered by the vehicle is included between 500 km (312 mi) and 1000 km (625 mi), never exceed 5000 rpm.

**⚠ WARNING**

**After the first 1000 km (625 mi), have an **aprilia** Official Dealer carry out the checks indicated in the column “After running-in” of the regular service intervals chart, see p. 52 (REGULAR SERVICE INTERVALS CHART), in order to avoid hurting yourself or other people and/or damaging the vehicle.**

- ◆ Between the first 1000 (625 mi) and 2000 km (1250 mi) drive more briskly, change speed and use the maximum acceleration only for a few seconds, in order to ensure better coupling of the components; never exceed 5500 rpm (see table).
- ◆ After the first 2000 km (1250 mi) you can expect better performance from the engine, however, without exceeding the maximum allowed (6250 rpm).

Engine maximum rpm recommended	
Mileage km (mi)	rpm
0 – 500 (0 – 312)	4000
500 – 1000 (312 – 625)	5000
1000 – 2000 (625 – 1250)	5500
over 2000 (1250)	6250



## STOPPING

### ⚠ WARNING

**If possible, avoid stopping abruptly, slowing down suddenly and braking at the last moment.**

- ◆ Release the throttle grip (1) (Pos.A), gradually put on the brakes and at the same time shift down in order to decrease the speed, see p. 44 (DEPARTURE AND DRIVE).

**Once the speed has decreased, before stopping the vehicle:**

- ◆ Pull the clutch lever (2) in order to prevent the stopping of the engine.

**When the vehicle has come to rest:**

- ◆ Shift the gear lever to neutral (green warning light "N" on).
- ◆ Release the clutch lever (2).
- ◆ In case of a brief stop, keep at least one brake on.

## PARKING

It is very important to choose a suitable parking area, respecting the road signs and the indications given below.

### ⚠ WARNING

**Park the vehicle on firm and flat ground, to prevent it from falling down.**

**Neither lean the vehicle against walls, nor lay it on the ground.**

**Make sure that the vehicle and especially its red-hot parts do not represent a danger for persons and children. Do not leave the vehicle unattended when the engine is on or the key is inserted into the ignition switch.**

**Do not get too near the cooling fan even if it is not in operation, since it may start and parts of clothes, hair, etc. may get entangled in it.**

### ⚠ WARNING

**The fall or excessive inclination of the vehicle may cause the fuel to flow out of the tank.**

**The fuel used for internal combustion engines is extremely inflammable and in particular conditions it can become explosive.**

### ⚠ CAUTION

**Do not apply the load of your weight or of the passenger's weight onto the side stand.**

**To park the vehicle:**

- ◆ Choose a suitable parking area.
- ◆ Stop the vehicle, see p. 48 (STOPPING).
- ◆ Move the engine stop switch (3) to position "X".
- ◆ Rotate the key (4) and move the ignition switch (5) to position "X".

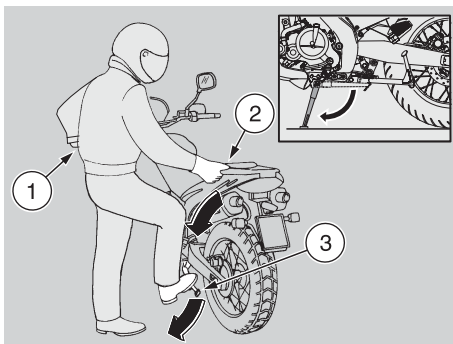
### ⚠ WARNING

**When getting on or off the vehicle, keep to the instructions given, see p. 37 (GETTING ON AND OFF THE VEHICLE).**

- ◆ Following the indications, wait until the passenger has got off the vehicle before dismounting.
- ◆ Lock the steering, see p. 18 (STEERING LOCK) and extract the key.

### ⚠ WARNING

**Make sure that the vehicle is stable.**



## POSITIONING THE VEHICLE ON THE STAND

### SIDE STAND

To place the vehicle on the side stand while seated astride the vehicle, see p. 37 (GETTING ON AND OFF THE VEHICLE).

If any manoeuvre (for example, moving the vehicle) required the lifting of the stand, to place the vehicle on the stand again, proceed as follows:

#### ⚠ WARNING

**Make sure that the parking surface is free from obstacles, firm and flat.**

- ◆ Choose a suitable parking area, see p. 48 (PARKING).
- ◆ Grasp the left grip (1) and the handle (2).

- ◆ Press the side stand with your right foot and extend it completely (3).
- ◆ Incline the vehicle until the stand rests on the ground.
- ◆ Steer the handlebar completely leftwards.

#### ⚠ WARNING

**Make sure that the vehicle is stable.**

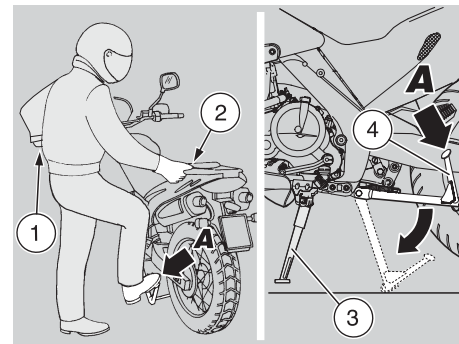
**CENTRE STAND OPT** (supplied as standard equipment in the countries where required)

#### ⚠ WARNING

**It is forbidden to position the vehicle on the centre stand while seated astride the vehicle in riding position.**

#### ⚠ WARNING

**Make sure that the parking surface is free from obstacles, firm and flat.**



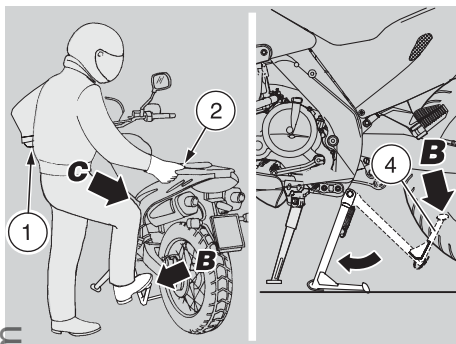
- ◆ Choose a suitable parking area, see p. 48 (PARKING).
- ◆ Grasp the left grip (1) and the handle (2).

#### ⚠ CAUTION

**The lowering of the side stand is suggested, for safety reasons, in order to prevent the vehicle from falling down or overturning in case of unbalance.**

**NOTE** Do not let the side stand touch the ground. Keep the vehicle in vertical position.

- ◆ Press the side stand with your right foot and extend it completely (3).
- ◆ Push down the lever (4) (**Pos.A**) of the centre stand and make it rest on the ground.



### ⚠ CAUTION

Proceed with care.

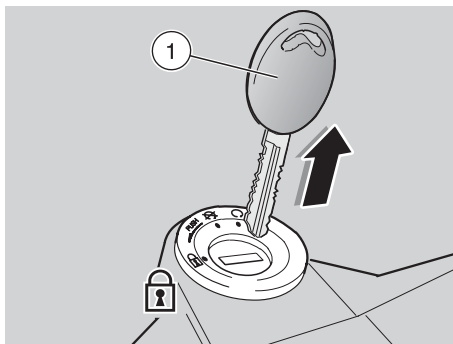
The positioning of the vehicle on the centre stand may be difficult, since the vehicle is very heavy. Release the grip (1) and the handle (2) only after positioning the vehicle on the stand.

- ◆ Load your weight on the lever (4) (Pos.B) of the centre stand and at the same time move your centre of gravity towards the rear part of the (Pos.C) vehicle.

### ⚠ WARNING

**Make sure that the vehicle is stable.**


- ◆ Let the side stand up.



### SUGGESTIONS TO PREVENT THEFT

### ⚠ CAUTION

**Do not use any “brake lock” devices. Failure to heed this warning can seriously damage the braking system and lead to an accident thus provoking serious injuries or death.**

NEVER leave the ignition key (1) inserted and always use the steering lock “”.

Park the vehicle in a safe place, possibly in a garage or a protected place.

When possible, use an additional anti-theft device.

Make sure that all documents are in order and the road tax has been paid.



Write down your personal data and telephone number in this page, to facilitate the identification of the owner in case of finding after theft.

SURNAME: .....

NAME: .....

ADDRESS: .....

TELEPHONE NO.: .....

**NOTE** Very often stolen vehicles are identified thanks to the data written in the use/maintenance manual.



Carefully read p. 2 (SAFETY WARNINGS), (TECHNICAL INFORMATION) and (WARNINGS - PRECAUTIONS - GENERAL ADVICE).

## ⚠ WARNING

**Risk of fire.**

Keep fuel and other flammable substances away from the electrical components.

Before beginning any maintenance operation or any inspection of the vehicle, stop the engine, extract the key from the ignition block, wait until the engine and the exhaust system have cooled down and if possible lift the vehicle by means of the proper equipment, on firm and flat ground.



## ⚠ WARNING

Before proceeding, make sure that the room in which you are working is properly ventilated.

Keep away from the red-hot parts of the engine and of the exhaust system, in order to avoid burns.

Do not hold any mechanical piece or other parts of the vehicle with your mouth: the components are not edible and some of them are noxious or even toxic.

## ⚠ CAUTION

If not expressly indicated otherwise, for the reassembly of the units repeat the disassembly operations in reverse order.

In case any maintenance operation should be required, it is advisable to use latex gloves.

Routine maintenance operations can usually be carried out by the user, but sometimes specific tools and specific technical skills may be required.

In case periodic maintenance operations, assistance or technical advice are needed, contact an **aprilia** Official Dealer, who will ensure you prompt and accurate servicing.

Ask your **aprilia** Official Dealer to test the vehicle on the road after a repair or periodic maintenance operation.

In any case, personally carry out the "Preliminary checking operations" after any maintenance operation, see p. 40 (PRELIMINARY CHECKING OPERATIONS).

## REGULAR SERVICE INTERVALS CHART

OPERATIONS TO BE CARRIED OUT BY THE **aprilia** Official Dealer (WHICH CAN BE CARRIED OUT EVEN BY THE USER).

### Key

① = check and clean, adjust, lubricate or change, if necessary;

② = clean;

③ = change;

④ = adjust.

**NOTE** Carry out the maintenance operations halving the intervals indicated, if the vehicle is used in rainy or dusty areas or on uneven surfaces.

(\*) = Check every two weeks or according to the intervals indicated.

(\*\*) = **OPT** (provided as standard equipment in the countries where required).

CO = carbon monoxide.

Component	After run-ning-in [1000 km (625 mi)]	Every 6000 km (3750 mi) or 12 months	Every 12000 km (7500 mi) or 24 months
Battery – Clamp tightening - electrolyte level	①	①	–
Spark plug	–	①	③
Fork	①	–	①
Light operation/direction	–	①	–
Light system	①	①	–
Safety switches			
Brake fluid	–	①	–
Coolant	–	–	①
Side bag coupling pins (**)	–	①	–
Tyres	every 1000 km (625 mi): ①		
Tyre pressure (*)	every 1000 km (625 mi): ④		
Engine idling rpm and CO	④	④	–
Securing locks for the side bags and the rear case (**)	–	①	–
Diagnostic warning light	at every start: ①		
Engine oil pressure Warning light	at every start: ①		
Flexible couplings	upon each final transmission change : ③		
Drive chain tension and lubrication	every 500 km (375 mi): ①		
Brake pad wear	①	before every trip and every 2000 km (1250 mi): ①	
Flexible coupling wear and flexible coupling unit slack	–	–	①

## OPERATIONS TO BE CARRIED OUT BY THE **aprilia** Official Dealer

### Key

① = check and clean, adjust, lubricate or change, if necessary;

② = clean;

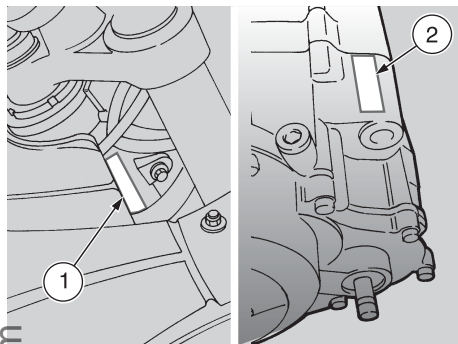
③ = change;

④ = adjust.

**NOTE** Carry out the maintenance operations halving the intervals indicated, if the vehicle is used in rainy or dusty areas or on uneven surfaces.

CO = carbon monoxide.

Component	After running-in [1000 km (625 mi)]	Every 6000 km (3750 mi) or 12 months	Every 12000 km (7500 mi) or 24 months
Rear shock absorber	–	–	①
Battery - Clamp tightening	①	–	–
Carburation, CO adjustment	①	①	–
Drive chain	–	①	–
Transmission cables and controls	①	①	–
Wheel centering	–	①	–
Rear suspension linkage bearings	–	–	①
Steering bearings and steering clearance	①	①	–
Wheel bearings	–	①	–
Brake discs	①	①	–
Fuel pump filter	every 15000 km (9375 mi): ①		
Air cleaner	–	①	③
Engine oil filter	③	③	–
Engine oil filter (on oil tank)	②	–	②
General running of the vehicle	①	①	–
Clutch clearance	④	④	–
Adjusting the valve clearance	④	–	④
Braking systems	①	①	–
Cooling system	–	①	–
Brake fluid	every 2 years: ③		
Coolant			
Fork oil	every 12000 km (7500 mi): ③		
Engine oil	③	③ (*)	–
Fork oil seals	after the first 30000 km (18750 mi) and successively every 22500 km (14000 mi): ③		
Brake pads	if worn: ③		
Wheel/Tyres	①	①	–
Nut, bolt, screw tightening			–
Suspensions and attitude	①	–	①
Spoke tension	①	①	–
Final transmission (chain, crown and pinion)	–	①	–
Fuel pipes	–	①	every 4 years: ③
Clutch wear	–	①	–



## IDENTIFICATION DATA

It is a good rule to write down the frame and engine numbers in the space provided in this manual.

The frame number can be used for the purchase of spare parts.

**NOTE** Do not alter the identification numbers if you do not want to incur severe penal and administrative sanctions. In particular, the alteration of the frame number results in the immediate invalidity of the guarantee.

### FRAME NUMBER

The frame number (1) is stamped on the right side of the steering column.

Frame no. \_\_\_\_\_

### ENGINE NUMBER

The engine number (2) is stamped on the rear part of the engine, near the pinion.

Engine no. \_\_\_\_\_

## JOINTS WITH CLICK CLAMPS AND WITH SCREW CLAMPS

### ⚠ CAUTION

Remove **ONLY** the clamps indicated in the maintenance procedures.

This text is not to be intended as an authorization to arbitrarily remove the clamps present on the vehicle.

### ⚠ WARNING

Before removing a clamp, make sure that the removal does not involve any fluid leakage; if so, provide for preventing such leakages and protect the components positioned near the joint.

### CLICK CLAMPS

For the removal it is sufficient to use simple pliers, while for the installation it is necessary to use a special tool (see below).

Before removing a clamp, prepare the material necessary for the correct reassembly.

**NOTE** Have the appropriate special tool **OPT** to hand:

- clamp installation pliers, see p. 20 (SPECIAL TOOLS **OPT**).

### ⚠ CAUTION

Upon installation, replace the click clamp that has been removed with a new one having the same dimensions, to be requested to an **aprilia** Official Dealer.

Do not attempt to reinstall the removed click clamp, since it is unusable. Do not replace the removed click clamp with a screw clamp or with other types of clamp.

### ⚠ CAUTION

Proceed with care, in order not to damage the joint components.

- ◆ Work with the pliers on the head of the click clamp, forcing until you release it.

### SCREW CLAMPS

For the removal and installation it is sufficient to use a simple screwdriver.

### ⚠ CAUTION

**Check the conditions of the clamp and if necessary replace it with a new one of the same type and dimensions, to be requested to an **aprilia** Official Dealer.**

**When fastening the clamp, make sure that the joint is sufficiently stable.**



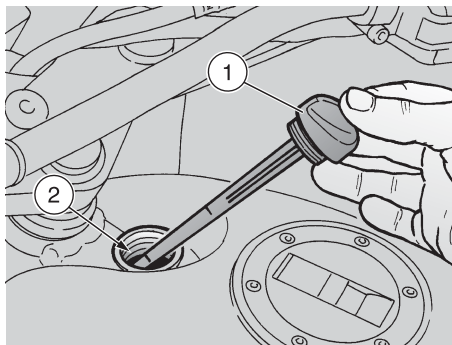
## CHECKING THE ENGINE OIL LEVEL AND TOPPING UP

Carefully read p. 34 (ENGINE OIL) and p. 51 (MAINTENANCE).

Periodically check the engine oil level, change the oil after the first 1000 km (625 mi) and successively every 6000 km (3750 mi) or 12 months. Have the oil changed at an **aprilia** Official Dealer.

For the check, proceed as follows:

**NOTE** To warm the engine and have the engine oil reach the operating temperature, do not let the engine idle with the vehicle at rest. According to the correct procedure, it is advisable to carry out the check after a trip of after covering approximately 15 km (10 mi) on a road outside town (this is sufficient for the engine oil to reach the operating temperature).



- ◆ Stop the engine, see p. 48 (STOPPING).
- ◆ Keep the vehicle in vertical position, with the two wheels resting on the ground.
- ◆ Insert the plug-dipstick (1) completely in the inlet hole (2), **without screwing it**.
- ◆ Extract the plug-dipstick (1) again and read the oil level on the dipstick:

**MAX** = maximum level

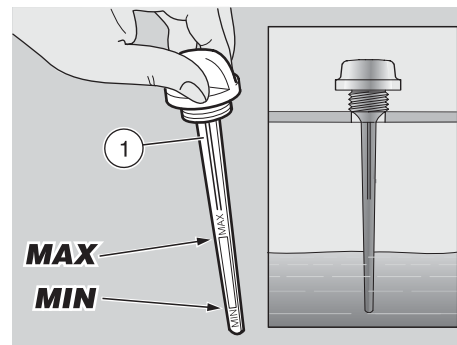
**MIN** = minimum level.

The difference between “**MAX**” and “**MIN**” amounts to approximately 300 cm<sup>3</sup>.

- ◆ The level is correct when the oil almost reaches the “**MAX**” mark.

### ⚠ CAUTION

**Never exceed the “MAX” mark, nor leave the oil below the “MIN” mark, in order to avoid serious damage to the engine.**



If necessary, top up the engine oil by proceeding as follows:

### ⚠ CAUTION

**Do not put additives or other substances into the oil.**

**If you use a funnel or other similar items, make sure that they are perfectly clean.**

**NOTE** Use high-quality 5W – 40 oil, see p. 93 (LUBRICANT CHART).

- ◆ After extracting the plug-dipstick (1), top up the tank through the inlet hole (2) until reaching the correct level, see p. 93 (LUBRICANT CHART).

## FRONT WHEEL

### ⚠ CAUTION

The disassembly and reassembly of the front wheel may be difficult for unskilled operators.

If necessary, contact your **aprilia** Official Dealer.

If you want to perform these operations personally, keep to the following instructions.

Carefully read p. 51 (MAINTENANCE).

While disassembling and reassembling the wheel, be careful not to damage the brake pipes, the disc and the pads.

### ⚠ WARNING

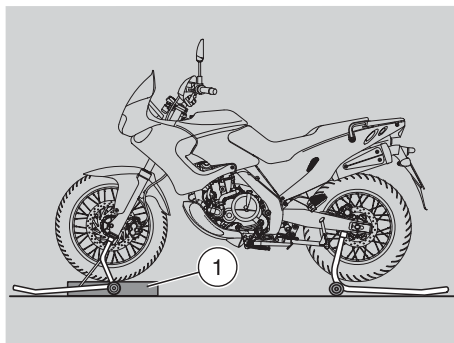
Riding with damaged rims may be dangerous for the rider, other persons and the vehicle.

Check the conditions of the wheel rim and change it if it is damaged.

**NOTE** Weight without driver (ready for starting): 200 kg.

## DISASSEMBLY

- ◆ Position the vehicle on the appropriate front support stand, see p. 61 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND **OPT**).



- ◆ Put a support (1) under the tyre, in such a way as to keep the wheel in its position after loosening it.

### ⚠ CAUTION

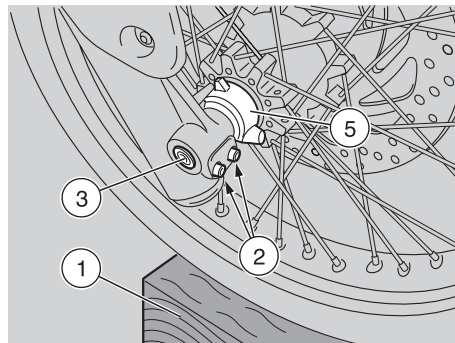
Make sure that the vehicle is stable.

- ◆ Partially unscrew the two wheel pin clamp screws (2) (right side).
- ◆ Unscrew the wheel pin (3) completely.

**NOTE** To facilitate the extraction of the wheel pin, slightly raise the wheel.

- ◆ Support the front wheel and manually withdraw the wheel pin (3).
- ◆ Take the left spacer ring (4) (left side).

**NOTE** Upon removal, check the position of the tachometer/odometer transmission cable, since this will be useful for the reassembly.



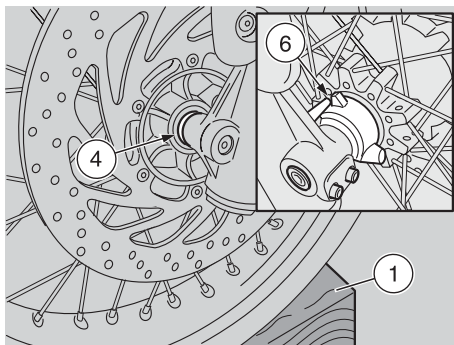
- ◆ Remove the speedometer/odometer control (5) from the wheel seat.

**NOTE** Remove the wheel, withdrawing the disc from the brake caliper with care.

- ◆ Remove the wheel by withdrawing it from the front.

### ⚠ CAUTION

Never pull the front brake lever after removing the wheel, otherwise the caliper pistons may go out of their seats, thus causing the outflow of the brake fluid. In this case consult your **aprilia** Official Dealer, who will carry out the proper maintenance operation.



## REASSEMBLY

- ◆ Spread a film of lubricating grease on the whole length of the wheel pin (3), grease the inside of the speedometer/odometer control (5), see p. 93 (LUBRICANT CHART).
- ◆ Position the tang of the speedometer/odometer control (5) in the appropriate seat of the wheel hub.
- ◆ Position the odometer control seat correctly, in correspondence with the special antirotation pin (6).

## ⚠ CAUTION

**While reassembling the wheel, be careful not to damage the brake pipes, discs and pads.**

- ◆ Position the wheel between the fork rods on the support (1).

## ⚠ CAUTION

**Proceed with care while inserting the disc in the brake caliper.**

## ⚠ WARNING

**Danger of injury. Do not introduce your fingers to align the holes.**

- ◆ Move the wheel until its central hole and the holes on the fork are aligned.
- ◆ Position the spacer ring (4) between the wheel hub and the fork left rod.
- ◆ Introduce the wheel pin (3) completely from the right side and tighten it.

**wheel pin driving torque (3): 80 Nm (8 kgm).**

- ◆ Remove the support (1) that upon disassembly was put under the tyre.

## ⚠ WARNING

**Due to the weight and dimensions of the vehicle, the following operation must be performed by two persons.**

**NOTE** Weight without driver (ready for starting): 200 kg.

- ◆ Remove the front support stand, see p. 61 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND **OPT**).
- ◆ Remove the rear support stand, see p. 61 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND **OPT**).

- ◆ With pulled front brake lever, press the handlebar repeatedly, thrusting the fork downwards. In this way the fork rods will settle properly.

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).

- ◆ Tighten the two wheel pin clamp screws (2) (right side).

**Wheel pin clamp screw driving torque (2): 12 Nm (1.2 kgm).**

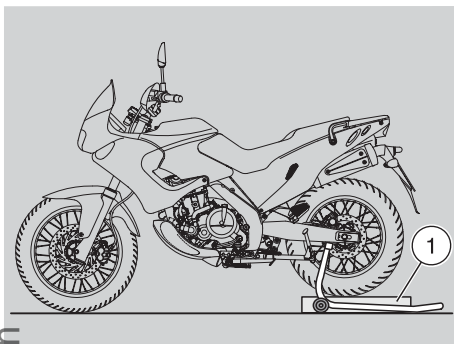
- ◆ Make sure that the following components are not dirty:

- tyre;
- wheel;
- brake discs.

## ⚠ WARNING

**After reassembly, pull the front brake lever repeatedly and check the correct functioning of the braking system.**

**Have the driving torques, centering and balancing of the wheel checked by your **aprilia** Official Dealer, in order to avoid accidents that may be harmful for you and/or other people.**



## REAR WHEEL

### ⚠ CAUTION

The disassembly and reassembly of the rear wheel may be difficult for unskilled operators.

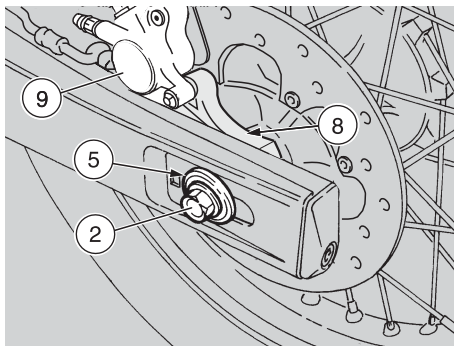
If necessary, contact your **aprilia** Official Dealer.

If you want to perform these operations personally, keep to the following instructions.

Carefully read p. 51 (MAINTENANCE).

### ⚠ WARNING

Before carrying out the following operations, let the engine and the silencer cool down until they reach room temperature, in order to avoid burns.



### ⚠ WARNING

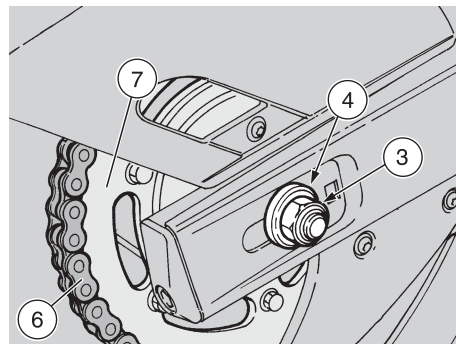
Riding with damaged rims may be dangerous for the rider, other persons and the vehicle.

Check the conditions of the wheel rim and change it if it is damaged.

### DISASSEMBLY

- ◆ Position the vehicle on the appropriate rear support stand, see p. 61 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND **OPT**).
- ◆ Put a support (1) under the tyre, in such a way as to keep the wheel in its position after loosening it.
- ◆ Lock the rotation of the wheel pin (2) with the appropriate key.
- ◆ Unscrew and remove the nut (3) and retrieve the washer (4).

**Wheel nut (3) driving torque: 100 Nm (10 kgm).**

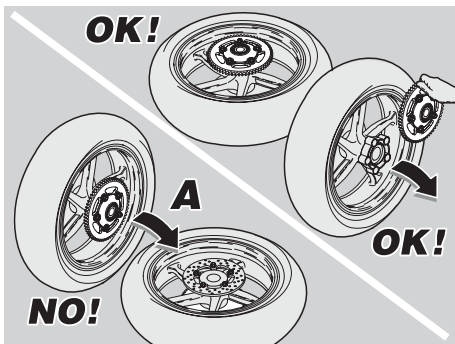


**NOTE** To facilitate the extraction of the wheel pin, slightly raise the wheel.

- ◆ Withdraw the wheel pin (2) from the left side and take the washer (5).

**NOTE** Lower the drive chain (6) outside the crown gear (7).

- ◆ Make the wheel advance and release the drive chain (6) from the crown gear (7).
- ◆ Withdraw the wheel from the rear fork from behind, carefully withdrawing the disc from the brake caliper.

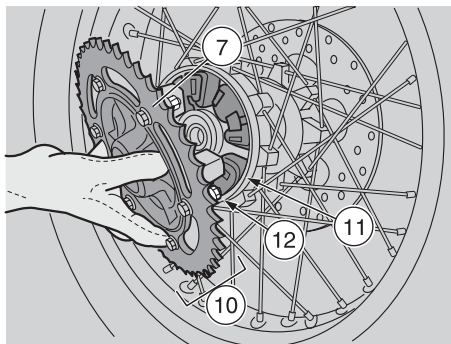


### ⚠ CAUTION

**Do not operate the rear brake lever after removing the wheel, since the pins may go out of their seats and cause brake fluid leakages. In this case consult your aprilia Official Dealer, who will carry out the proper maintenance operation.**

**NOTE** The support plate (8) complete with brake caliper (9) remains positioned on the left side of the rear fork.

Proceed with care. If the final drive unit (10) is installed on the flexible coupling holder (11), do not overturn or rotate the rear wheel in horizontal position (on the rear sprocket side), since the final drive unit would come off and fall down, with the risk of damaging the rear sprocket (7).

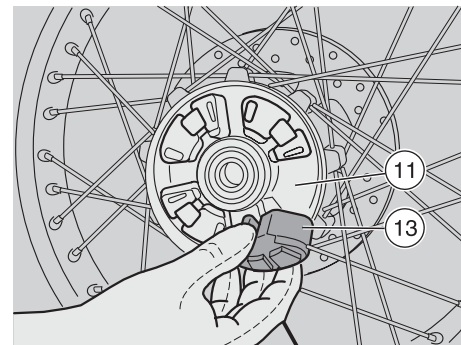


**NOTE** The removal of the final drive unit isn't necessary if the wheel is in the normal running position (vertical) or in horizontal position with the rear sprocket facing upwards and in both cases secured against overturning.

**NOTE** Do not unscrew the six nuts (12). The whole final drive unit must be withdrawn from the flexible coupling holder.

- ◆ Withdraw the final transmission unit (10), keeping it parallel to the wheel axis.
- ◆ Remove the four flexible couplings (13) from the flexible coupling holder (11).

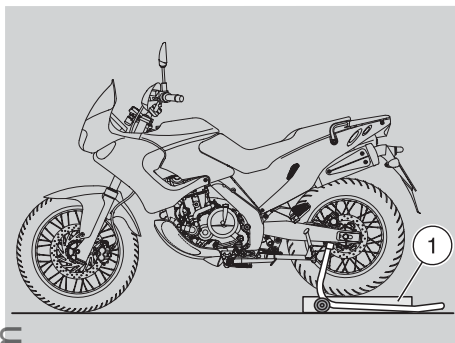
**NOTE** Check the conditions of the four flexible couplings (13); if they are damaged or excessively worn, change them, see p. 52 (REGULAR SERVICE INTERVALS CHART).



### REASSEMBLY

**NOTE** Insert the final transmission unit, parallel to the wheel axis, introducing the drive pins in the relevant seats, between a flexible coupling and the other.

- ◆ Position the four flexible couplings (13) in the relevant seats in the flexible coupling holder (11).
- ◆ Insert the final drive unit in the flexible coupling holder (11).



### ⚠ CAUTION

Before proceeding with the reassembly, make sure that support plate (8) of the brake caliper (9) is positioned correctly; the plate slot must be inserted in the appropriate stop pin in the inner part of the rear fork right rod.

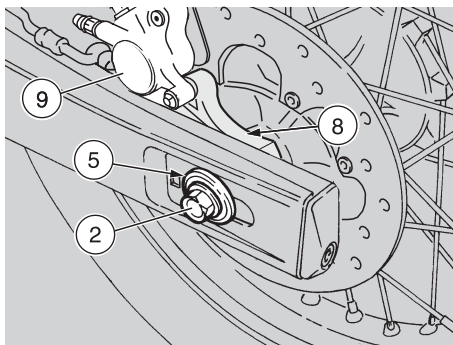
Insert the disc in the brake caliper carefully.

- ◆ Position the wheel between the rear fork rods on the support (1).

### ⚠ WARNING

Do not introduce your fingers between the chain and the crown gear.

- ◆ Make the wheel advance and position the drive chain (6) on the crown gear (7).
- ◆ Uniformly apply a moderate quantity of grease on the wheel pin (2), see p. 93 (LUBRICANT CHART).



### ⚠ WARNING

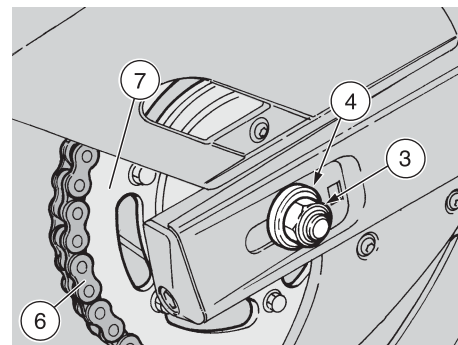
**Danger of injury.**

Do not introduce your fingers to align the holes.

- ◆ Move the wheel backwards, until its central hole and the holes on the rear fork are aligned.
- ◆ Rotate the support plate (8), complete with brake caliper (9) and with fulcrum on the stop pin, until it is aligned with the holes.
- ◆ Insert the washer (5) in the wheel pin (2).
- ◆ Introduce the wheel pin (2) completely from the left side.

**NOTE** Make sure that the wheel pin (2) is completely inserted.

- ◆ Position the washer (4) and tighten the wheel nut (3) manually.



- ◆ Lock the rotation of the wheel pin (2) with the appropriate key and tighten the nut (3).

**Wheel nut driving torque (2-3): 100 Nm (10 kgm).**

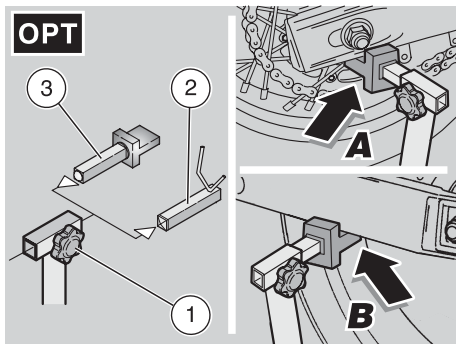
- ◆ Make sure that the following components are not dirty:

- tyre;
- wheel;
- brake disc.

### ⚠ CAUTION

After reassembly, pull the rear brake lever repeatedly and check the correct functioning of the braking system.

Have the driving torques, centering and balancing of the wheel checked by your **aprilia** Official Dealer, in order to avoid accidents that may be harmful for you and/or other people.

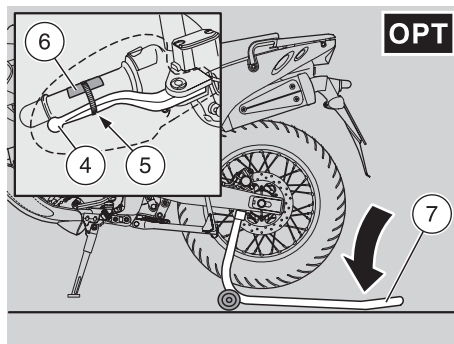


### POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND **OPT**

- ◆ Loosen the knob (1).
- ◆ Withdraw the fork support (2) and extract it from the stand seat.
- ◆ Insert the support pin (3).
- ◆ Repeat the previous operations on the opposite side of the stand.
- ◆ Remove the two drive chain guards, see p. 66 (REMOVING THE DRIVE CHAIN GUARDS).
- ◆ Pull the front brake lever (4) completely, then put a small piece of cardboard (5) on the grip and keep the front brake lever pulled by holding it against the grip by means of a plastic band (6).

### **⚠ WARNING**

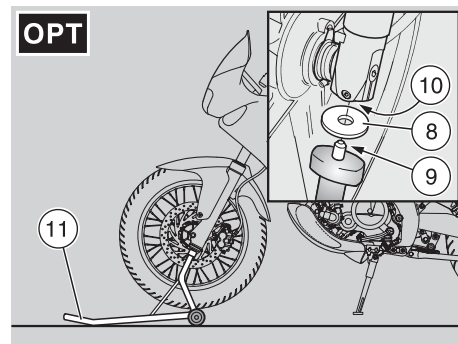
Raise the vehicle by means of the two rear fork arms only.



- ◆ Insert the stand from the rear side of the vehicle and position it so that the two support pins (3) rest on the lower part of the rear fork rods:
  - the right support (**Pos.A**);
  - the left support (**Pos.B**).
- ◆ Withdraw the support pins (3) and make them hit against the rear fork.
- ◆ Tighten the two knobs (1).
- ◆ Push the stand forward (7) until the support pin (3) rests, on the right side, against the rear fastening plate of the lower chain guard.

**NOTE** Have someone help you keep the vehicle in vertical position with the two wheels on the ground.

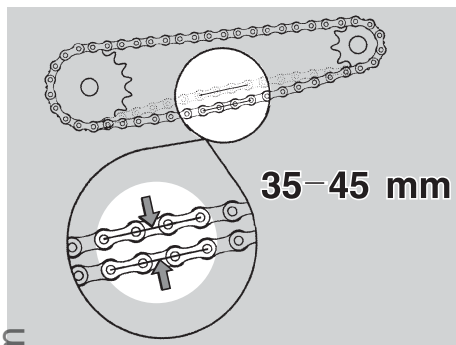
- ◆ Rest one foot on the rear part of the stand (7).
- ◆ Push the stand (7) downwards until it reaches the end of its stroke (see figure).



### POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND **OPT**

**NOTE** To position the vehicle on the front support stand it is necessary to use the appropriate rear support stand **OPT**.

- ◆ Position the vehicle on the appropriate rear support stand **OPT**, p. 61 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND **OPT**).
- ◆ Position the two appropriate washers (8) on the upper ends (9) of the stand.
- ◆ Insert the two ends of the stand (9) in the two holes (10) positioned on the lower ends of the front fork.
- ◆ Rest one foot on the front part of the stand (11).
- ◆ Push the stand (11) downwards until it reaches the end of its stroke (see figure).



## DRIVE CHAIN

Carefully read p. 51 (MAINTENANCE).

The vehicle is equipped with an endless chain, in which a ring link joint is not used.

### ⚠ CAUTION

An excessive slackening of the chain may cause noise or make the chain rattle, with consequent wear of the shoe and of the chain guide plate.

Periodically check the slack and adjust it if necessary, see p. 62 (ADJUSTMENT).

To change the chain, contact an **aprilia** Official Dealer, who will ensure you prompt and accurate servicing.

Incorrect maintenance may cause the untimely wear of the chain and/or damages to the pinion and/or the crown.

### ⚠ CAUTION

Carry out the maintenance operations more frequently if you use the vehicle in difficult conditions or on dusty and/or muddy roads.

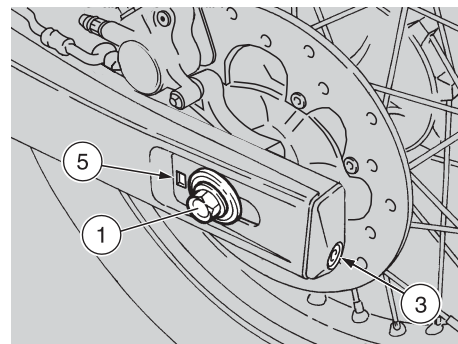
## CHECKING THE SLACK

To check the slack, proceed as follows:

- ◆ Stop the engine, see p. 48 (STOPPING).
- ◆ Position the vehicle on the appropriate rear support stand, see p. 61 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND **OPT**).
- ◆ Position the shifting lever in neutral.
- ◆ Make sure that the vertical oscillation, in an intermediate point between pinion and crown in the lower part of the chain, is included between **35–45 mm**.
- ◆ Rotate the wheel manually, in such a way as to check the vertical oscillation of the chain even in other positions; the slack must be constant in all the wheel rotation phases.

### ⚠ CAUTION

If in some positions the slack is higher than in others, this means that there are crushed or seized links; in this case, contact an **aprilia** Official Dealer. To prevent the risk of seizures, lubricate the chain frequently, see p. 63 (CLEANING AND LUBRICATION).

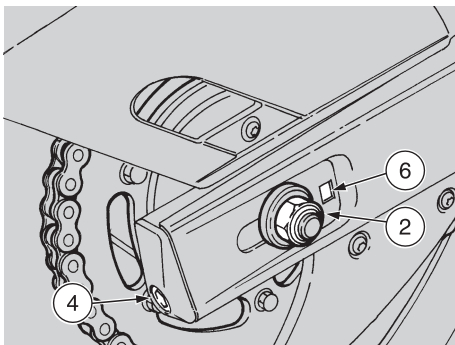


If the clearance is slack is uniform, but higher than **45 mm** or lower than **35 mm**, adjust it, see p. 62 (ADJUSTMENT).

## ADJUSTMENT

If after the check it is necessary to adjust the chain tension, slacken the chain to increase the slack, tighten the chain to decrease it.

- ◆ Position the vehicle on the appropriate rear support stand, see p. 61 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND **OPT**).
- ◆ Lock the rotation of the wheel pin (1) with the appropriate key.
- ◆ Loosen the nut (2).



**NOTE** Numbered reference marks connected with the movement of the adjusters (3) (4) are provided for the wheel centering.

These reference marks can be seen by looking inside two slots (5) (6) positioned on the rear fork rods, before the wheel pin.

- ◆ Act on the left (3) and right (4) adjusters and adjust the chain slack, making sure, on both sides of the vehicle, that the same reference marks can be seen when looking inside the slots (5) (6).
- ◆ Lock the rotation of the wheel pin (1) with the appropriate key.
- ◆ Tighten the nut (2).

**Wheel nut driving torque (1) (2): 100 Nm (10 kgm).**

- ◆ Check the chain slack, see p. 62 (CHECKING THE SLACK).

## CHECKING THE DRIVING CHAIN, PINION AND SPROCKET WEAR

Further, check the chain and sprockets and make sure that they do not present:

- damaged rollers;
- loose pins;
- dry, rusty, crushed or seized links;
- excessive wear;
- lacking O rings;
- sprocket or teeth excessively worn or damaged.

### ⚠ CAUTION

**If the chain rollers are damaged, the pins are loose and/or the O rings are damaged or lacking, it is necessary to change the whole chain unit (both sprockets and chain).**

### ⚠ CAUTION

**Lubricate the chain frequently, especially if there are dry or rusty parts.**

**The crushed or seized links must be lubricated and made work again.**

**If this is not possible, contact an aprilia Official Dealer, who will provide for changing the chain.**

- ◆ Finally, check the wear of the rear fork protection shoe.

## CLEANING AND LUBRICATION

### ⚠ CAUTION

**The drive chain is provided with O rings among the links, in order to keep the grease inside them.**

**Carry out the adjustment, lubrication, cleaning and change of the chain with great care.**

Never wash the chain with water jets, steam jets, high-pressure water jets and highly inflammable solvents.

- ◆ Wash the chain with naphtha or kerosene. If it tends to rust quickly, intensify the maintenance intervals.

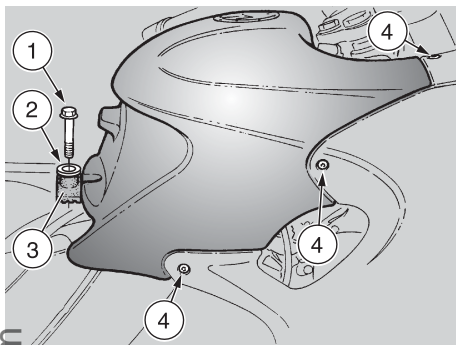
Lubricate the chain every 500 km (312 mi) or whenever necessary.

- ◆ After washing the chain and letting it dry, lubricate it with spray grease for chains provided with sealing rings, see p. 93 (LUBRICANT CHART).

### ⚠ CAUTION

**The lubricants for chains available on the market may contain substances that are dangerous for the rubber sealing rings of the chain.**

**NOTE** Do not use the vehicle soon after lubricating the chain, since due to the centrifugal force the lubricant would be sprayed outwards and dirty the surrounding areas.



## REMOVAL OF THE FUEL TANK

Carefully read p. 24 (FUEL) and p. 51 (MAINTENANCE).

### ⚠ WARNING

Risk of fire.

Wait until the engine and the exhaust silencer have completely cooled down.

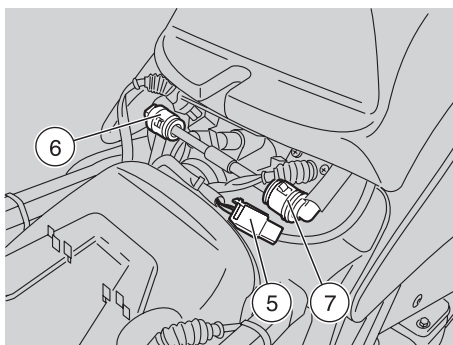
Fuel vapours are noxious for your health.

Before proceeding, make sure that the room in which you are working is properly ventilated.

Do not inhale fuel vapours.

Do not smoke and do not use naked flames.

**DO NOT DISPOSE OF FUEL IN THE ENVIRONMENT.**



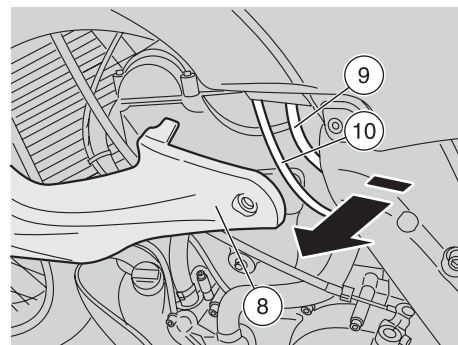
- ◆ Turn the ignition switch to position "X".
- ◆ Remove the saddle, see p. 18 (UNLOCKING/LOCKING THE SADDLE).
- ◆ Unscrew and remove the centre screw (1).
- ◆ Take the washer (2) and the rubber pad (3).
- ◆ ★ Unscrew and remove the three screws (4).
- ◆ Disconnect the electric connector (5) from the fuel pump.

### ⚠ CAUTION

Upon reassembly, make sure that the electric connector (5) is correctly coupled.

### ⚠ WARNING

Position a clean cloth under the rapid couplings (6) and (7), in order to absorb the small quantity of fuel that will flow out of them after disconnection.



- ◆ Release and disconnect the rapid couplings (6) (7).

### ⚠ WARNING

Upon reassembly, make sure that the rapid couplings (6) (7) are inserted correctly.

Working from the left-hand side of the vehicle:

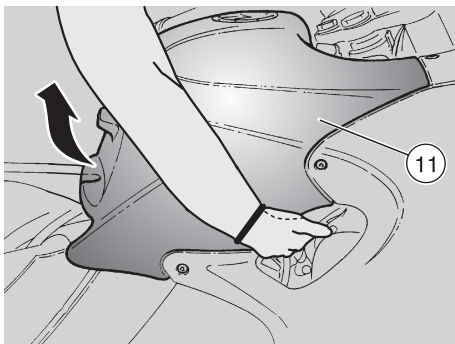
- ◆ Move the fairing (8) moderately towards the outside.

**NOTE** Mark the two pipes (9) (10) in order to be able to insert them in the relevant union upon reassembly.

- ◆ Withdraw the two pipes (9) (10) downwards:
  - pipe (9) = fuel tank overflow;
  - pipe (10) = water drainage from tank cap.

### ⚠ WARNING

When reassembling, make sure the pipes are plugged in properly (9) (10).



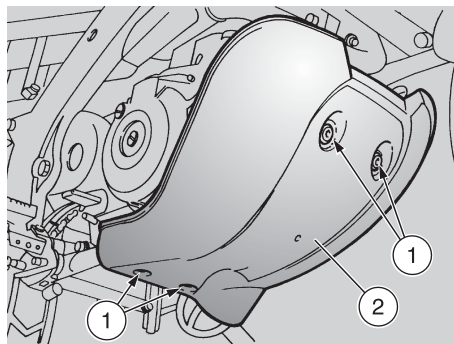
### ⚠ CAUTION

Handle the plastic and painted components with care to avoid scraping or damaging them.

- ◆ Grasp the tank (11) and, pulling it backwards, withdraw it from the two front supports.
- ◆ Raise and remove the tank (11).

### ⚠ WARNING

Position the tank in a safe place, with the cap facing upwards; neither overturn, nor tilt it, since the filler cap is not tight and the fuel would flow out of the tank.



## REMOVING THE OIL SUMP GUARD

Carefully read p. 51 (MAINTENANCE).

### ⚠ WARNING

Wait until the engine and the exhaust silencer have completely cooled down.

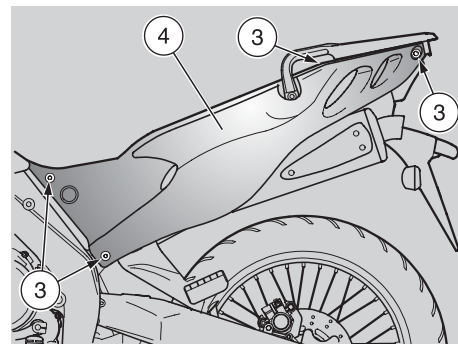
- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the four screws (1).

### ⚠ CAUTION

Handle the plastic and painted components with care to avoid scraping or damaging them.

- ◆ Remove the oil sump guard (2).

**NOTE** If the deadening material inside the oil sump guard (2) is deteriorated, contact an **aprilia** Official Dealer to have it changed.



## REMOVING THE RIGHT AND LEFT SIDES

Carefully read 51 (MAINTENANCE).

### ⚠ WARNING

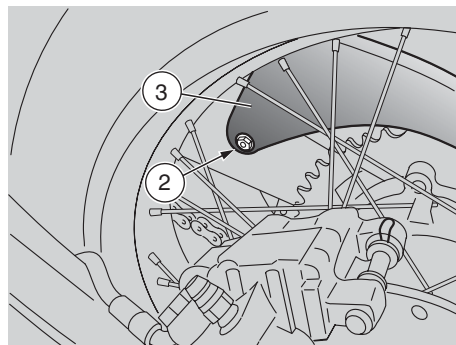
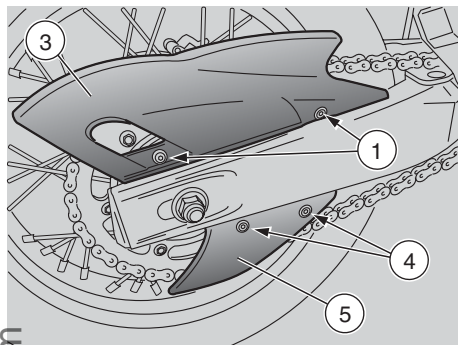
Wait until the engine and the exhaust silencer have completely cooled down.

- ◆ Remove the saddle, see p 18 (UNLOCKING/LOCKING THE SADDLE).
- ◆ Unscrew and remove the four screws (3).
- ◆ Remove the side cover (4).

### ⚠ CAUTION

Handle the plastic and painted components with care to avoid scraping or damaging them.

**NOTE** If the heat-resistant material inside the side body panel (4) is deteriorated, contact an **aprilia** Official Dealer to have it changed.



## REMOVING THE DRIVE CHAIN GUARDS

Carefully read 51 (MAINTENANCE).

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the two screws (1).
- ◆ From the opposite side, unscrew and remove the screw (2).

## CAUTION

Handle the plastic and painted components with care to avoid scraping or damaging them.

- ◆ Lift and remove the upper guard (3).
- ◆ Unscrew and remove the two screws (4).
- ◆ Remove the lower protection element (5).

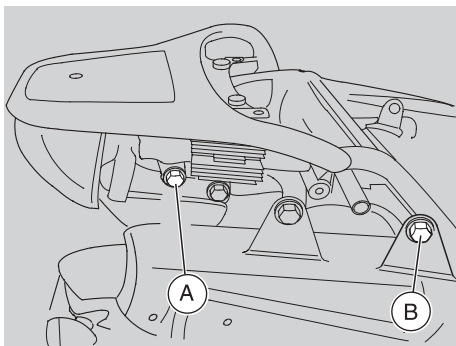
## INSTALLING THE SIDE BAG SUPPORTS **OPT** (supplied as standard equipment in the countries where required)

**NOTE** If also the rear case supports must be installed beside the side bag supports, it is necessary to install the former first, see p. 68 [INSTALLING THE REAR CASE SUPPORTS **OPT** (supplied as standard equipment in the countries where required)].

Carefully read 51 (MAINTENANCE).

The following parts are supplied together with the side bag supports:

- four screws T.E. M8 x 20 (1) (2) with the relevant washers (3) (4);
- two screws T.C.E.I. M8 x 20 (5);
- two screws T.C.E.I. M8 x 30 (6);
- two spacers (7);
- two front couplings (8);
- two rear couplings (9).

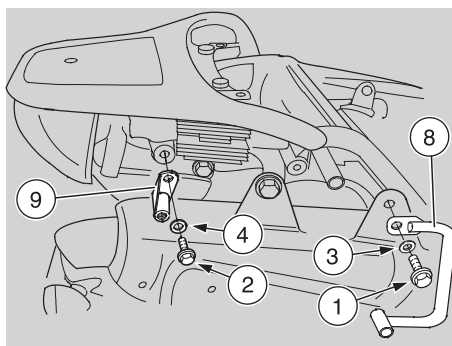


**NOTE** The operations marked with \* are not necessary if the rear case supports are installed.

- ◆ ★ Remove the side panels, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).
- ◆ ★ ★ Unscrew and remove the screw (A).
- ◆ ★ Unscrew and remove the screw (B) and take the washer.

**NOTE** Take the screws (A) (B) and the washer and store them in a safe place, so that if necessary you can use them again.

- ◆ ★ Position the front coupling (8).
- ◆ ★ Insert the screw (1) with the relevant washer (3) and screw it manually.
- ◆ ★ ★ Position the rear coupling (9).
- ◆ ★ ★ Insert the screw (2) with the relevant washer (4) and screw it manually.
- ◆ ★ Loosen and remove the nut (10) that fastens the passenger footboard.
- ◆ ★ Position the bag support (11).



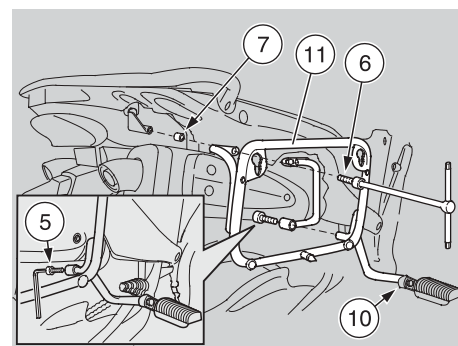
- ◆ ★ Put back the nut (10) and screw it manually.
- ◆ ★ ★ Position the spacer ring (7).
- ◆ ★ Insert the screws (5) (6) and screw them manually.
- ◆ ★ Tighten the screws (5) (6) and the nut (10), without applying the torque prescribed.
- ◆ ★ Tighten the screw (1) and the screw (2), applying the torque prescribed.

**Driving torque of screws (1) (2): 25 Nm (2.5 kgm).**

- ◆ ★ Unscrew and remove the screws (5) (6) and the nut (10).
- ◆ ★ Remove the bag support (11).
- ◆ ★ Put back the side cover, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).

### ⚠ CAUTION

Handle the bag support (11) with care, and avoid damaging the side.



- ◆ ★ Put back the bag support (11).
- ◆ ★ Insert and tighten the screws (5) (6), applying the torque prescribed.

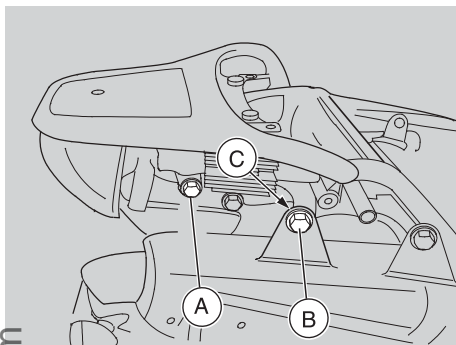
**Driving torque of screws (5) (6): 25 Nm (2.5 kgm).**

- ◆ ★ Put back the nut (10) and tighten it applying the torque prescribed.

**Driving torque of nut (10): 50 Nm (5.0 kgm).**

- ◆ Install the side bags, see p. 21 (SIDE BAGS **OPT** (supplied as standard equipment in the countries where required)).

Check the wear of the coupling pins every 6000 km (3750 mi) or 12 months, and if necessary have them changed by an **aprilia** Official Dealer.



## INSTALLING THE REAR CASE SUPPORTS **OPT** (supplied as standard equipment in the countries where required)

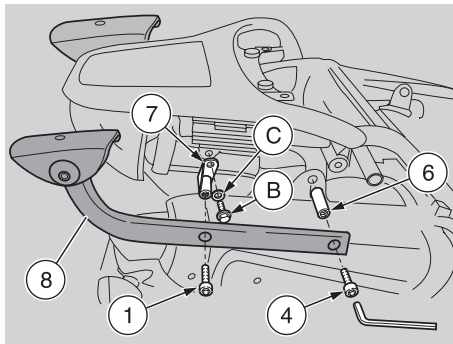
Carefully read 51 (MAINTENANCE).

The following parts are supplied together with the rear case supports:

- two screws T.C.E.I. M8 x 20 (1);
- two screws T.C.E.I. M8 x 30 (2) with the relevant washers (3);
- two screws T.C.E.I. M8 x 55 (4);
  - two self-locking nuts (5);
  - two spacers (6);
  - two rear couplings (7).

**NOTE** The operations marked with \* are not necessary if the side bag supports are installed.

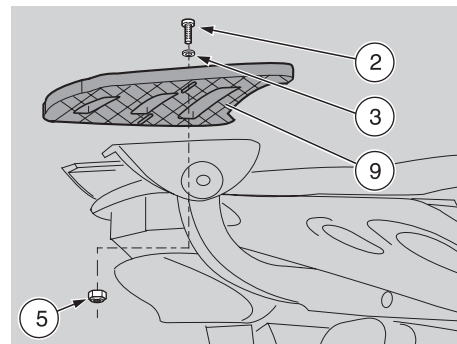
- ◆ ★ Remove the side panels, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).



- ◆ \* ★ Unscrew and remove the screw (A).
- ◆ ★ Unscrew and remove the screw (B) and take the washer (C).

**NOTE** Take the screw (A) and position it in a safe place in order to be able to use it again if necessary; the screw (B) and the washer (C) will be reused in the following operations.

- ◆ \* ★ Position the rear coupling (7).
- ◆ \* ★ Insert the screw (B) with the relevant washer (C) and screw it manually.
- ◆ ★ Position the spacer ring (6).
- ◆ ★ Position the case side support (8).
- ◆ ★ Insert the screws (1) (4) and screw them manually.
- ◆ ★ Position the plate (9) on the two side supports (8).
- ◆ ★ Insert one of the screws (2), with the relevant washer (3).
- ◆ ★ Working on the lower side, position the nut (5) and tighten it manually.



- ◆ \* ★ Tighten the screw (B), applying the torque prescribed.

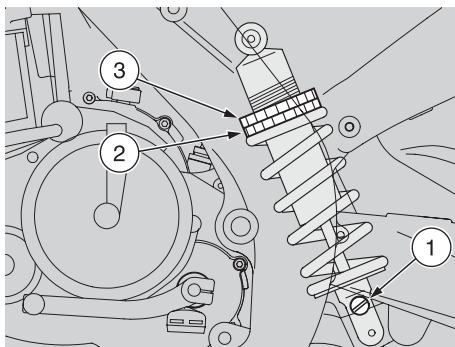
**Screw (B) driving torque: 25 Nm (2.5 kgm).**

- ◆ ★ Tighten the screws (1) (4) and the nut (5), applying the torque prescribed.

**Driving torque screws (1) (4) and nut (5): 25 Nm (2.5 kgm).**

- ◆ ★ Put back the side panels, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).
- ◆ Install the rear case, see p. 23 (REAR CASE **OPT** (supplied as standard equipment in the countries where required)).

Check the wear of the coupling pin every 6000 km (3750 mi) or 12 months, and if necessary have it changed by an **aprilia** Official Dealer.



## REAR SUSPENSION

The rear suspension consists of a spring-shock absorber unit, fixed to the frame by means of a uni-ball and to the rear fork by means of lever systems.

**For the setting of the vehicle attitude, the shock absorber is provided:**

- with a screw adjuster (1) for the adjustment of the hydraulic braking with extended shock absorber;
- an adjusting ring nut (2) and a locking ring nut (3) for the adjustment of the spring preload.

## ADJUSTING THE REAR SHOCK ABSORBER

Check and if necessary adjust the rear shock absorber every 12000 km (7500 mi).

The standard setting of the rear shock absorber is adjusted so that it is suitable for most driving conditions.

The standard adjustment, set by the manufacturer, is suitable for a rider weighing approximately 70 kg.

If your weight and needs are different, for example in case of ride with passenger and full load, it is advisable to contact an **aprilia** Official Dealer.

According to the conditions of use of the vehicle, it is possible to adjust the hydraulic braking with extended shock absorber by adjusting the screw (1); for the adjustment, keep to the following indications:

### Uneven or irregular road surface – HARD adjustment:

- ◆ Turn the screw (1) to the right (clockwise).

### Normal or regular road surface – SOFT adjustment:

- ◆ Turn the screw (1) to the left (anticlockwise).



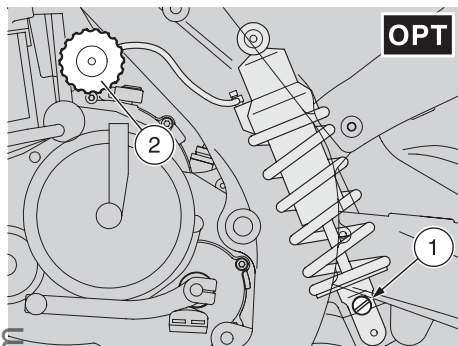
## ⚠ CAUTION

**Adjust the spring preload and the hydraulic braking with extended shock absorber according to the conditions of use of the vehicle.**

**When the spring preload is increased, it is necessary to increase also the hydraulic braking with extended shock absorber, in order to avoid sudden jerks while riding.**

**If necessary, contact an **aprilia** Official Dealer.**

**Test the vehicle repeatedly on the road, until obtaining the optimal adjustment.**



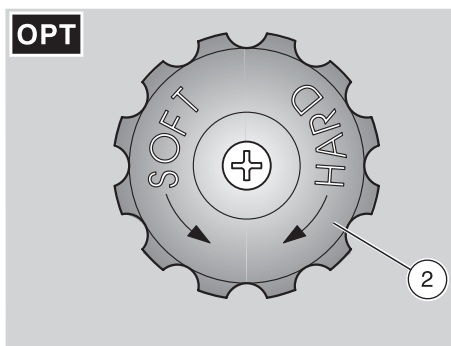
## REAR SUSPENSION WITH HYDRAULIC PRELOAD ADJUSTMENT **OPT**

With this type of suspension it is possible to adjust the spring preload and the hydraulic braking with extended shock absorber.

### **⚠ CAUTION**

**Adjust the spring preload and the hydraulic braking with extended shock absorber according to the conditions of use of the vehicle.**

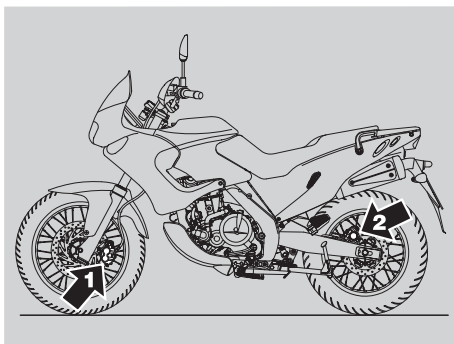
**When the spring preload is increased, it is necessary to increase also the hydraulic braking with extended shock absorber, in order to avoid sudden jerks while riding.**



**REAR SHOCK ABSORBER ADJUSTMENT TABLE**

Rear shock absorber	Standard adjustment (INTERMEDIATE) for normal load (for example, rider and passenger)	SOFT adjustment for light load (for example, rider only)	HARD adjustment for heavy load (for example, rider, passenger and luggage)
Hydraulic adjustment with extended shock absorber, screw (1)	starting from the SOFT adjustment position, rotate the knob clockwise, giving it 25 clicks.	turn completely anticlockwise (SOFT)	turn completely clockwise (HARD)
Spring preload, knob (2)	starting from the soft adjustment position (anticlockwise), rotate the knob clockwise, giving it a full turn (9 clicks)	turn completely anticlockwise	turn completely clockwise





## CHECKING THE BRAKE PAD WEAR

Carefully read p. 26 (BRAKE FLUID - recommendations), p. 27 (DISC BRAKES) and p. 51 (MAINTENANCE).

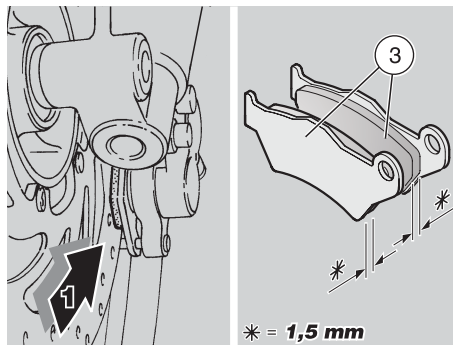
**NOTE** The following information refer to a single braking system, but are valid for both.

Check the brake pad wear after the first 1000 km (625 mi) and successively every 2000 km (1250 mi) and before every trip.

The wear of the disc brake pads depends on the use, on the kind of drive and on the road.

### ⚠ WARNING

Check the wear of the brake pads, especially before every trip.

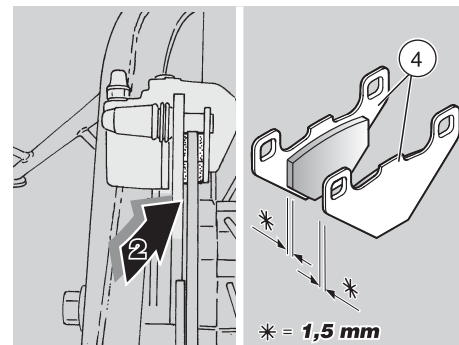


To carry out a rapid checking of the wear of the pads, proceed as follows:

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Carry out a visual check between the disc and the pads, proceeding:
  - from below, on the front part, for the front brake caliper (1);
  - from above, on the rear part, for the rear brake calipers (2).

### ⚠ CAUTION

The excessive wear of the friction material would cause the contact of the pad metal support with the disc, with consequent metallic noise and production of sparks from the caliper; braking efficiency, safety and soundness of the disc would thus be negatively affected.



If the thickness of the friction material [even of one front (3) or rear pad (4) only] has reduced to about **1.5 mm** (or even if only one of the wear indicators is not visible any longer):

- **for the front brake caliper** have both front brake caliper pads changed.
- **for the rear brake caliper**, have both pads of the caliper changed.

### ⚠ WARNING



Have the pads changed by your **aprilia** Official Dealer.

## IDLING ADJUSTMENT

Carefully read p. 51 (MAINTENANCE).

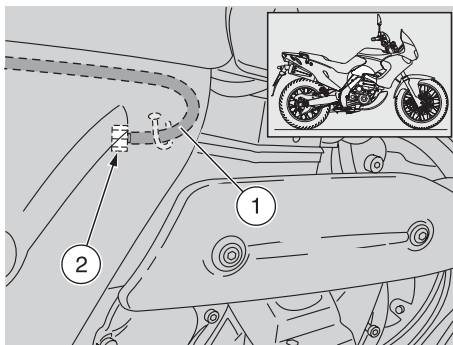
**NOTE** In case of start at low ambient temperature [near to or lower than 0° C (32° F)], see p. 43 (STARTING WITH COLD ENGINE). In any case, if the normal running temperature has not been reached, an anomaly in the engine idling rpm may be noticed. This is normal, since the engine idling rpm return to regular values when the engine reaches the normal running temperature.

**To check the engine idling rpm correctly, proceed as follows:**

- ◆ Ride for a few miles until reaching the normal running temperature, see p. 15 (Coolant temperature indicator “”).
- ◆ Position the gear lever in neutral (green warning light “” on).
- ◆ Check the engine idling rpm on the revolution counter.

The engine idling speed must be about **1300 ± 100 rpm**.

**If the engine idling rpm are within the values indicated, do not modify them in any way.**



### **⚠ CAUTION**

**In case of irregular engine idling rpm, contact exclusively an aprilia Official Dealer.**

**An excessive increase in the engine idling rpm may cause irregularities in the operation of the engine and damage the engine itself and other components.**

**It is advisable to change the setting only when it is really necessary (if, when the throttle grip is released, the engine stops or keeps running at higher rpm than prescribed) and it is impossible to reach an aprilia Official Dealer.**

Only when really necessary:

### **⚠ CAUTION**

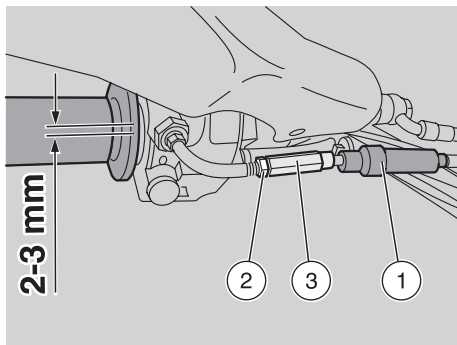
**Risk of burns.**

**Some parts of the vehicle are extremely hot (for example, the exhaust pipe and, to a lesser extent, the exhaust pipe guard).**

**Wear safety gloves to protect yourself from those parts of the vehicle whose temperature is too high.**

**Proceed with care and do not touch the exhaust pipe guard for any reason whatsoever.**

- ◆ Release the idling adjusting cable (1) from the cable guide positioned behind the right stanchion of the frame.
- ◆ Turn the adjusting knob (2).
  - BY SCREWING IT (clockwise), you increase the rpm;
  - BY UNSCREWING IT (anticlockwise), you decrease the rpm;
- ◆ Twist the throttle grip, accelerating and decelerating a few times to make sure that it functions correctly and to check if the idling speed is constant.



## ADJUSTING THE ACCELERATOR CONTROL

Carefully read p. 51 (MAINTENANCE).

Have the accelerator control cables checked by an **aprilia** Official Dealer after the first 1000 km (625 mi) and successively every 6000 km (3750 mi).

The idle stroke of the throttle grip must be **2–3 mm**, measured on the edge of the grip itself.

If not, proceed as follows:

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Withdraw the protection element (1).
- ◆ Loosen the lock nut (2).
- ◆ Rotate the adjuster (3) in such a way as to restore the prescribed value.

- ◆ After the adjustment, tighten the lock nut (2) and check the idle stroke again.
- ◆ Put back the protection element (1).

### ⚠ CAUTION

After the adjustment, make sure that the rotation of the handlebar does not modify the engine idling rpm and that the throttle grip returns smoothly and automatically to its original position after being released.

## ADJUSTING THE COLD START CONTROL

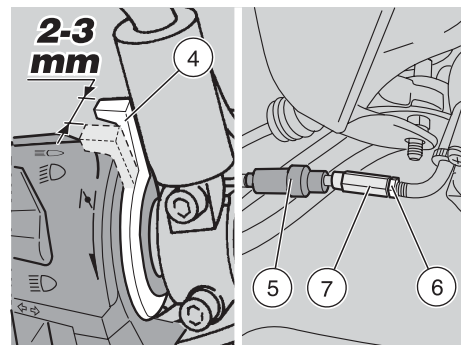
Carefully read p. 51 (MAINTENANCE).

Have the accelerator control cables checked by an **aprilia** Official Dealer after the first 1000 km (625 mi) and successively every 6000 km (3750 mi).

The idle stroke of the cold start control (4) must be **2–3 mm**, measured on the edge of the control itself.

If not, proceed as follows:

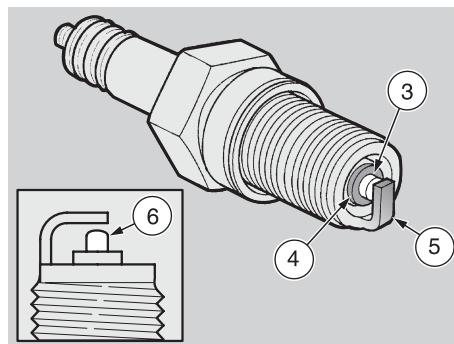
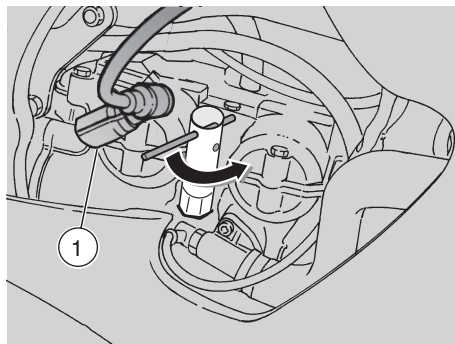
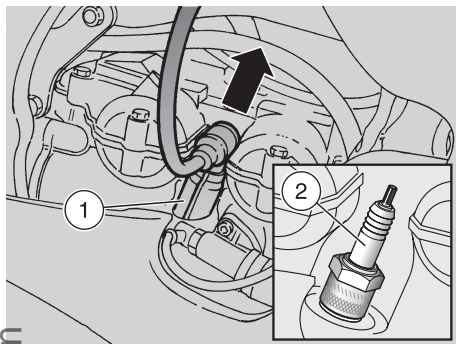
- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Withdraw the protection element (5).
- ◆ Loosen the lock nut (6).
- ◆ Rotate the adjuster (7) in such a way as to restore the prescribed value.



- ◆ After the adjustment, tighten the lock nut (6) and check the idle stroke again.
- ◆ Put back the protection element (5).

### ⚠ CAUTION

After the adjustment, make sure that the rotation of the handlebar does not modify the engine idling rpm.



## SPARK PLUG

Carefully read p. 51 (MAINTENANCE).

Check the spark plug every 6000 km (3750 mi), change them every 12000 km (7500 mi).

Periodically remove the spark plug and clean it carefully, removing carbon deposits; change it if necessary.

To reach the spark plug:

### ⚠ WARNING

Before carrying out the following operations, let the engine and the silencer cool down until they reach room temperature, in order to avoid burns.

- ◆ Remove the fuel tank, see p. 64 (REMOVAL OF THE FUEL TANK).

For the removal, proceed as follows:

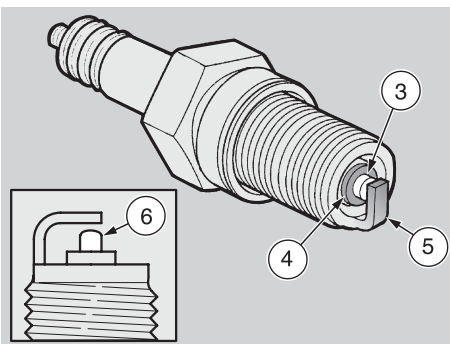
- ◆ Remove the cap (1) of the spark plug (2).
- ◆ Remove any trace of dirt from the spark plug base.
- ◆ Introduce the special spanner provided in the tool kit on the spark plug.
- ◆ Unscrew the spark plug and extract it from its seat, taking care to prevent dust or other substances from getting inside the cylinder.

For the check and cleaning:

Key:

- centre electrode (3);
- insulating (4);
- side electrode (5).
- ◆ Make sure that there are neither carbon deposits, nor corrosion marks on the electrodes and on the insulating material; if necessary, clean them with a pressurized air jet.

If the spark plug has crackings on the insulating material, corroded electrodes, excessive deposits or the tip (6) of the central electrode (3) is rounded, it must be changed.



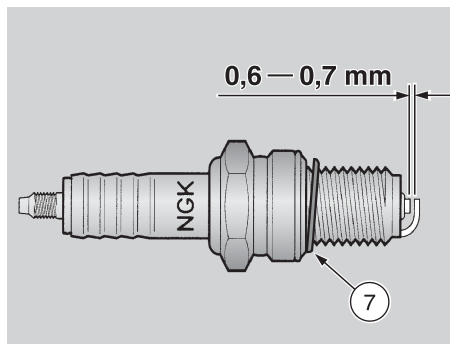
### ⚠ CAUTION

When changing the spark plug, check the thread pitch and length.

If the threaded part is too short, the carbon deposits will accumulate on the thread seat, and therefore the engine may be damaged during the installation of the right spark plug.

Use the recommended type of spark plugs only, see p. 90 (TECHNICAL DATA), in order not to compromise the life and performance of the engine.

- ◆ Check the spark plug gap with a thickness gauge.  
The spark plug gap must be **0,6 – 0,7 mm**; if necessary, adjust it, bending the centre electrode (6) with care.
- ◆ Make sure that the washer (7) is in good conditions.



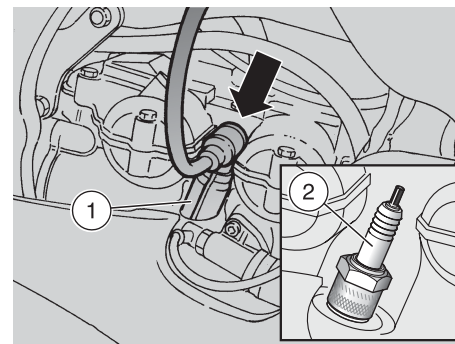
### For the installation:

- ◆ With the washer on (7), screw the spark plug by hand in order not to damage the thread.
- ◆ Tighten the spark plug by means of the spanner you will find in the tool kit, giving it half a turn to compress the washer.

**Spark plug driving torque: 20 Nm (2.0 kgm).**

### ⚠ CAUTION

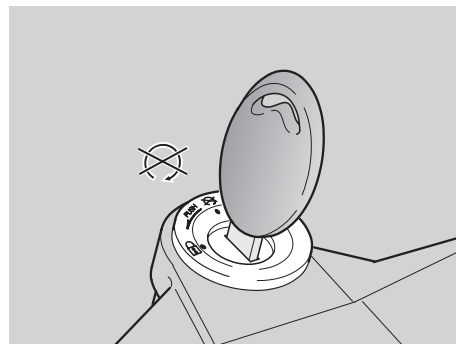
The spark plug must be well tightened, otherwise the engine may overheat and be seriously damaged.



### ⚠ CAUTION

Make sure that the cap (1) is correctly connected to the spark plug (2). Due to the vibrations of the engine, the incorrect position would cause the disconnection of the spark plug cap, with serious damage to the engine.

- ◆ Correctly insert the cap (1) in the spark plug (2), until you hear the click.
- ◆ Put back the fuel tank, see p. 64 (REMOVAL OF THE FUEL TANK).



## BATTERY

Carefully read p. 51 (MAINTENANCE).

### ⚠ WARNING

Risk of fire.

Keep fuel and other flammable substances away from the electrical components.

The electrolyte in the battery is toxic and caustic and may cause burns on contact with the skin as it contains sulphuric acid. Wear protection clothes, a face mask and/or goggles during maintenance operations.

In case of contact with the skin, rinse with plenty of water.

In case of contact with the eyes, wash with large quantities of water for fifteen minutes and consult an oculist without delay.

If the electrolyte is accidentally swallowed, drink a lot of water or milk, then continue drinking milk of magnesia or vegetable oil and consult a doctor without delay.

The battery gives off explosive gases; keep it away from flames, sparks, cigarettes and any other source of heat.

During the recharging or the use, make sure that the room is properly ventilated and avoid inhaling the gases released during the recharging.

**KEEP AWAY FROM CHILDREN.**

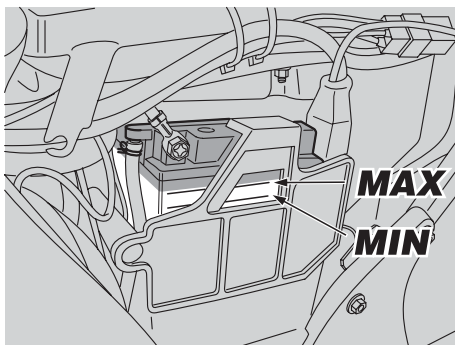
Do not incline the vehicle too much, in order to avoid dangerous leaks of the battery fluid.

### ⚠ CAUTION

Never invert the connection of the battery cables.

Connect and disconnect the battery with the ignition switch in position "⊗", otherwise some components may be damaged.

Connect first the positive cable (+) and then the negative cable (-). Disconnect following the reverse order.



## CHECKING THE ELECTROLYTE LEVEL

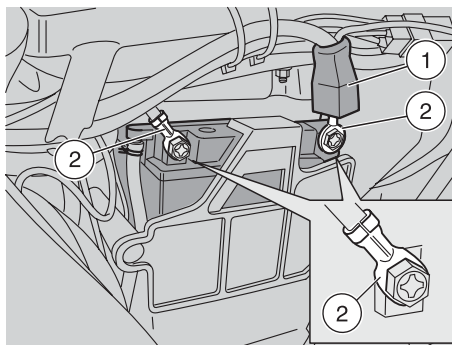
Carefully read p. 76 (BATTERY).

To check the electrolyte level, proceed as follows:

- ◆ Make sure that the ignition switch is in position "X".
- ◆ Remove the left cover, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).
- ◆ Make sure that the fluid level is included between the two "MIN" and "MAX" notches stamped on the battery side.

If necessary, proceed as follows:

- ◆ Remove the battery, see p. 78 (REMOVING THE BATTERY).
- ◆ Remove the element plugs.



## CAUTION

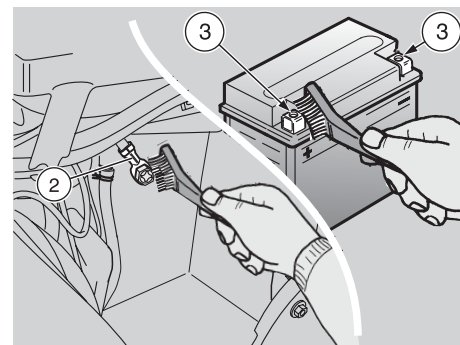
Do not exceed the "MAX" mark, since the electrolyte level increases during the recharge.

- ◆ Top up the fluid by adding only distilled water.
- ◆ Put back the left cover, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).

## CHECKING AND CLEANING THE TERMINALS

Carefully read p. 76 (BATTERY).

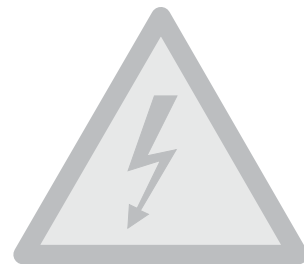
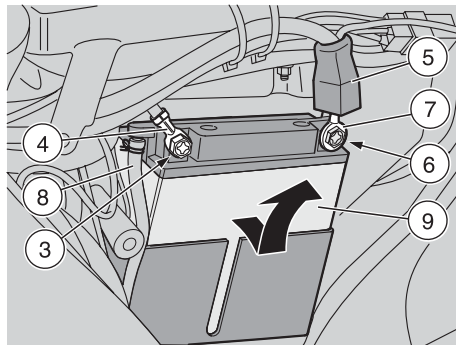
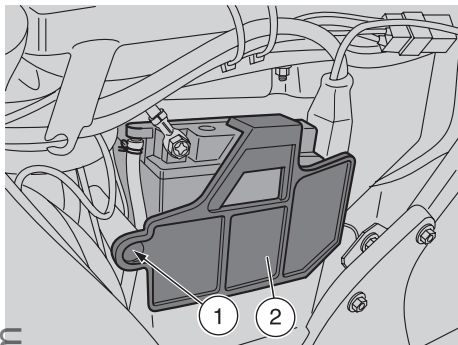
- ◆ Make sure that the ignition switch is in position "X".
- ◆ Remove the left cover, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).



- ◆ Remove the red protection element (1).
- ◆ Make sure that the cable terminals (2) and the battery terminals (3) are:
  - in good conditions (and not corroded or covered with deposits);
  - covered with neutral grease or vaseline.

If necessary, proceed as follows:

- ◆ Remove the battery, see p. 78 (REMOVING THE BATTERY).
- ◆ Brush the cable terminals (2) and the battery terminals (3) with a wire brush, in order to eliminate any trace of corrosion.
- ◆ Install the battery, see p. 79 (INSTALLING THE BATTERY).
- ◆ Put back the left cover, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).



## REMOVING THE BATTERY

Carefully read p. 76 (BATTERY).

- ◆ Make sure that the ignition switch is in position "X".
- ◆ Remove the left cover, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).
- ◆ Unscrew and remove the screw (1).
- ◆ Remove the battery cover (2).
- ◆ Unscrew and remove the screw (3) on the negative terminal (-).
- ◆ Move the negative cable (4) sideways.
- ◆ Remove the red protection element (5).
- ◆ Unscrew and remove the screw (6) on the positive terminal (+).
- ◆ Move the positive cable (7) sideways.

### ⚠ CAUTION

**Do not force the electric cables.**

- ◆ Withdraw the breather pipe (8).
- ◆ Grasp the battery (9) firmly and remove it from its compartment, by bending it towards the outside and lifting it.

### ⚠ WARNING

**Once it has been removed, the battery must be stored in a safe place and kept away from children.**

- ◆ Position the battery on a flat surface, in a cool and dry place.
- ◆ Put back the left cover, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).

### ⚠ WARNING

**Upon reassembly, connect first the positive cable (+) and then the negative cable (-).**

**NOTE** For the installation of the battery, see p. 79 (INSTALLING THE BATTERY).

## RECHARGING THE BATTERY

Carefully read p. 76 (BATTERY).

- ◆ Remove the battery, see p. 78 (REMOVING THE BATTERY).
- ◆ Prepare an appropriate battery charger.
- ◆ Set the charger for the desired type of recharge.

**NOTE** A recharge with an amperage equal to 1/10th of the battery capacity is recommended.

- ◆ Connect the battery with a battery charger.

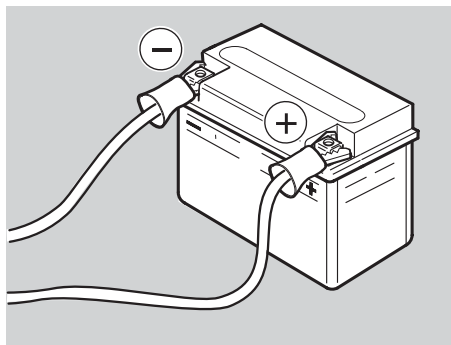
### ⚠ WARNING

**During the recharging or the use, make sure that the room is properly ventilated and avoid inhaling the gases released during the recharging.**

- ◆ Switch on the battery charger.
- ◆ After the recharging operation, check the electrolyte level again and if necessary top up with distilled water.

### ⚠ WARNING

**Reassemble the battery only 5/10 minutes after disconnecting the recharge apparatus, since the battery continues to produce gas for a short lapse of time.**



## INSTALLING THE BATTERY

Carefully read p. 76 (BATTERY).

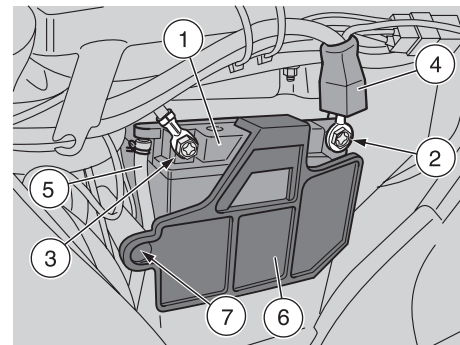
- ◆ Make sure that the ignition switch is in position "X".
- ◆ Remove the left cover, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).

**NOTE** The battery (1) must be positioned in its compartment with the terminals directed towards the outside part of the vehicle.

- ◆ Put the battery (1) in its compartment.

### ⚠ WARNING

**Upon reassembly, connect first the positive cable (+) and then the negative cable (-).**



- ◆ Connect the positive terminal (+) by means of the screw (2).
- ◆ Connect the negative terminal (-) by means of the screw (3).
- ◆ Put back the red protection element (4).

### ⚠ CAUTION

**Upon reassembly always connect the battery breather pipe, to prevent the sulphuric acid vapours from corroding the electric system, painted parts, rubber elements or gaskets when they exit the breather pipe itself.**

- ◆ Put back the breather pipe (5).
- ◆ Put back the battery cover (6).
- ◆ Position and tighten the screw (7).
- ◆ Put back the left cover, see p. 65 (REMOVING THE RIGHT AND LEFT SIDES).



## LONG INACTIVITY OF THE BATTERY

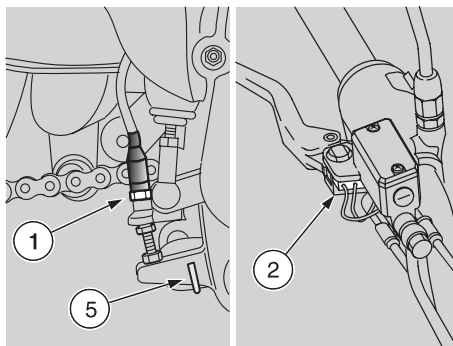
If the vehicle remains unused for more than fifteen days, it is necessary to recharge the battery, in order to prevent its sulphation, see p. 79 (RECHARGING THE BATTERY).

◆ Remove the battery, see p. 78 (REMOVING THE BATTERY) and put it in a cool and dry place.

It is important to check the charge periodically (about once a month), during the winter or when the vehicle remains unused, in order to prevent the deterioration of the battery.

◆ Recharge it completely with a trickle charge, see p 79 (RECHARGING THE BATTERY).

If the battery remains on the vehicle, disconnect the cables from the terminals.

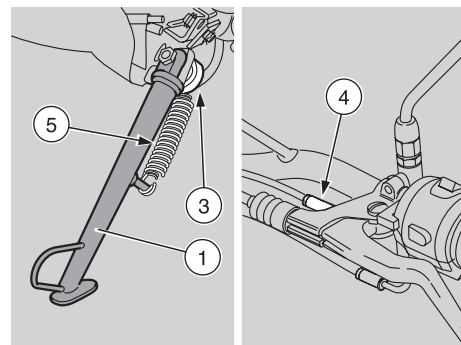


## CHECKING THE SWITCHES

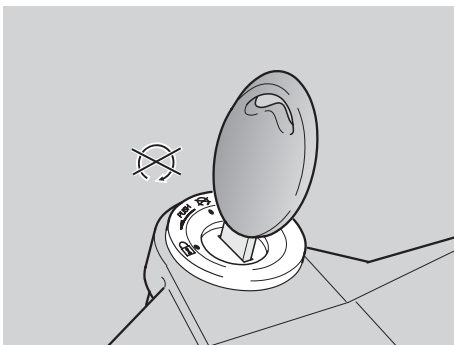
Carefully read p. 51 (MAINTENANCE).

**The vehicle is provided with four switches:**

- 1) Stoplight switch on the rear brake control lever;
- 2) Stoplight switch on the front brake control lever;
- 3) Safety switch on the side stand;
- 4) Switch on the clutch control lever.



- ◆ Make sure that there are no dirt or mud deposits on the switch; the pin must be able to move without interferences, returning automatically to its initial position.
- ◆ Make sure that the cables are connected correctly.
- ◆ Check the spring (5): it must not be damaged, worn or weakened.



## CHANGING THE FUSES

Carefully read p. 51 (MAINTENANCE).

### ⚠ CAUTION

Do not repair faulty fuses.

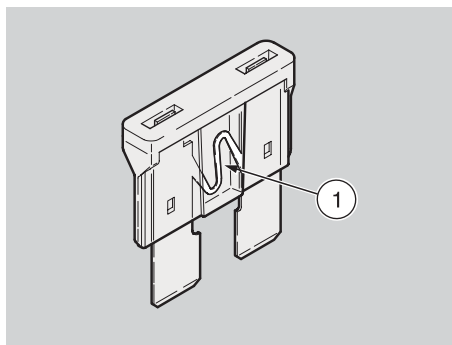
Never use fuses different from the recommended ones.

The use of unsuitable fuses may cause damages to the electric system or, in case of short circuit, even a fire.


**NOTE** If a fuse blows frequently, there probably is a short circuit or an overload in the electric system.

In this case it is advisable to consult an **aprilia** Official Dealer.

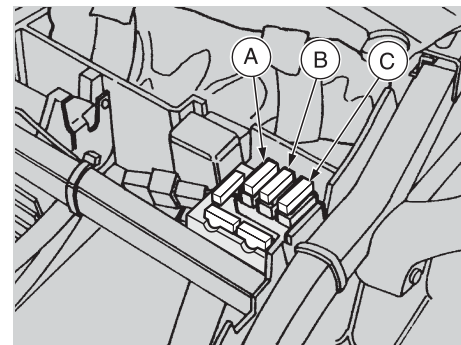
If an electric component does not work or works irregularly, or if the vehicle fails to start, it is necessary to check the fuses.



For the check, proceed as follows:

- ◆ Turn the ignition switch to position “”, to avoid any accidental short circuit.
- ◆ Remove the rider saddle, see p. 18 (UNLOCKING/LOCKING THE SADDLE).
- ◆ Extract the fuses one by one and check if the filament (1) is broken.
- ◆ Before replacing a fuse, try to find out the cause of the trouble, if possible.
- ◆ Replace the damaged fuse with a new one having the same amperage.

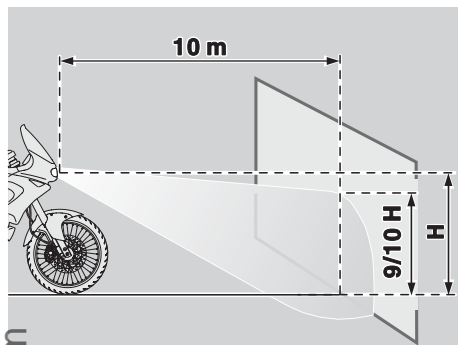
**NOTE** If you use one of the spare fuses, put a new fuse in the proper seat.



## ARRANGEMENT OF THE FUSES

- A) Fuse 20 A (yellow) – From battery to:**  
ignition switch, voltage regulator, electric cooling fan.
- B) Fuse 15 A (light blue) – From ignition switch to:**  
all light loads.
- C) Fuse 7.5 A (red) – From ignition switch to:**  
ignition, starting safety logic.

**NOTE** Three fuses are spare fuses.

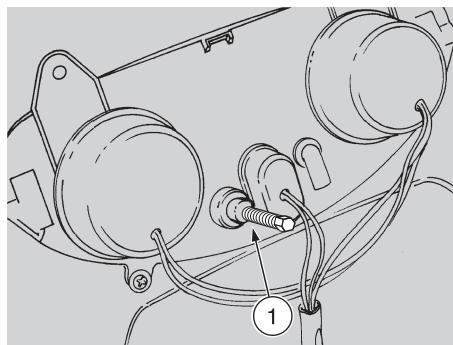


## ADJUSTING THE VERTICAL HEADLIGHT BEAM

**NOTE** To check the direction of the headlight beam, specific procedures must be adopted, in accordance with the regulations in force in the country where the vehicle is used.

To rapidly check the correct direction of the beam, place the vehicle on flat ground, 10 m away from a wall.

Turn on the low beam, sit on the vehicle and make sure that the beam projected on the wall is slightly under the horizontal line of the headlight (about 9/10th of the total height).



### To adjust the headlight beam:

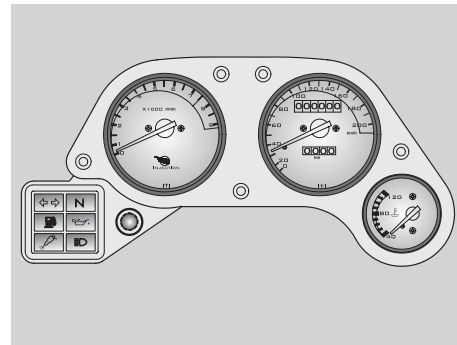
- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Working on the lower side of the fairing, act on the appropriate part of the fairing, act on the appropriate screw (1) with the spanner (8 mm) provided in the tool kit.

BY ROTATING IT CLOCKWISE, you set the beam upwards.

BY ROTATING IT ANTICLOCKWISE, you set the beam downwards.

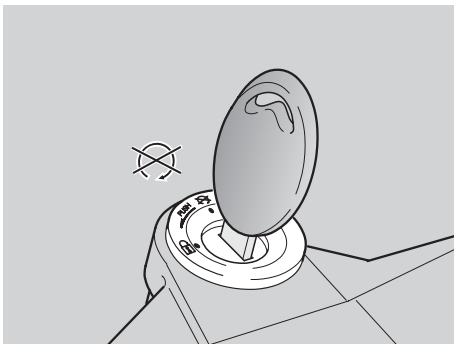
### After the adjustment:

**Make sure that the vertical adjustment of the headlight beam is correct.**



## DASHBOARD LIGHTING

If you need assistance or technical advice, consult your **aprilia** Official Dealer, who can ensure you prompt and accurate servicing.



## BULBS

Carefully read p. 51 (MAINTENANCE).

### ⚠ WARNING

Risk of fire.

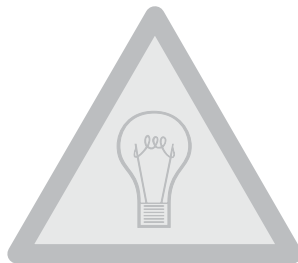
Keep fuel and other flammable substances away from the electrical components.

### ⚠ CAUTION

Before changing a bulb, move the ignition switch to position "⏏" and wait a few minutes, so that the bulb cools down.

Change the bulb wearing clean gloves or using a clean and dry cloth.

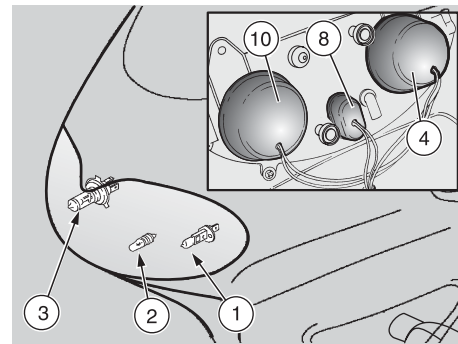
Do not leave fingerprints on the bulb, since these may cause its overheating and consequent breakage.



If you touch the bulb with bare hands, remove any fingerprint with alcohol, in order to avoid any damage.

**DO NOT FORCE THE ELECTRIC CABLES.**

**NOTE** Before changing a bulb, check the fuses, see p. 81 (CHANGING THE FUSES).



## CHANGING THE HEADLIGHT BULBS

Carefully read p. 83 (BULBS).

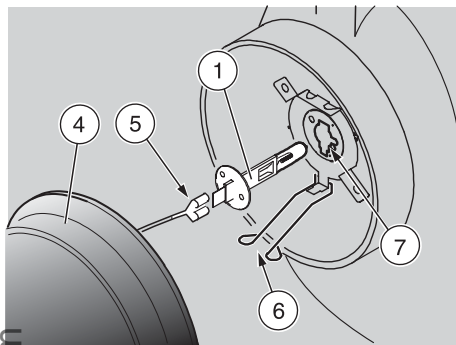
The headlight contains:

- one high beam bulb (1) (left side);
- one parking light bulb (2) (lower).
- one low beam bulb/high beam (3) (right side).

To change, proceed as follows:

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).

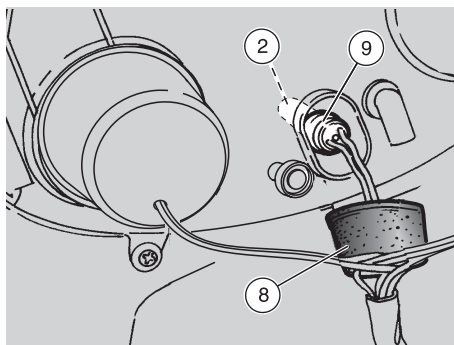
**NOTE** Proceed on the side of the bulb to be changed.



### HIGH BEAM BULBS

- ◆ Move the protection element (4) with your hands.
- ◆ Grasp the electric terminal (5), pull it and disconnect it from the bulb (1).
- ◆ Release the check spring (6) positioned at the rear of the bulb socket (7).
- ◆ Extract the bulb (1) from its seat and replace it with a new one of the same type.

**NOTE** Insert the bulb in the bulb socket, making the relevant positioning seats coincide.



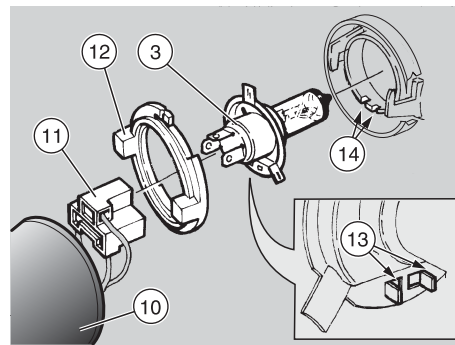
### PARKING LIGHT BULB

- ◆ Move the protection element (8) with your hands.

#### ⚠ CAUTION

**To extract the bulb socket, do not pull the electric wires.**

- ◆ Grasp the parking light bulb socket (9), pull it and remove it from its seat.
- ◆ Withdraw the bulb (2) and replace it with one of the same type.



### LOW BEAM BULB/HIGH BEAM

- ◆ Move the protection element (10) with your hands.

#### ⚠ CAUTION

**To extract the bulb electric connector, do not pull its electric wires.**

- ◆ Grasp the bulb electric connector (11), pull it and disconnect it from the bulb (3).
- ◆ Rotate the bulb socket (12) anticlockwise and extract it from its seat.
- ◆ Press the bulb (3) slightly and rotate it anticlockwise.
- ◆ Extract the bulb (3) from its seat and replace it with a new one of the same type.

**NOTE** Insert the bulb in the bulb socket, making the appropriate tangs (13) coincide with the relevant seats (14) on the reflector.

## CHANGING THE FRONT DIRECTION INDICATOR BULBS

Carefully read p. 83 (BULBS).

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the two screws (1).
- ◆ Remove the protection screen (2).

### ⚠ CAUTION

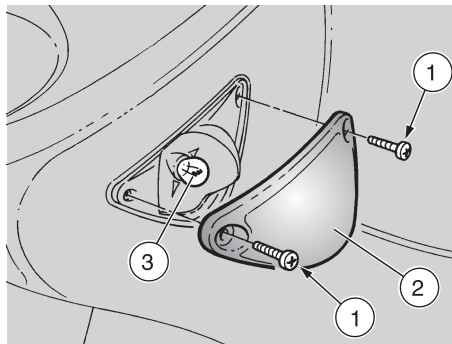
Upon reassembly, correctly position the protection screen in its seat. Tighten the screw (1) moderately and carefully, to avoid damaging the protection screen.

- ◆ Press the bulb (3) slightly and rotate it anticlockwise.
- ◆ Extract the bulb (3) from its seat.

### ⚠ CAUTION

Insert the bulb in the bulb socket, making the two bulb pins coincide with the relevant guides on the socket.

- ◆ Correctly install a new bulb of the same type.



## CHANGING THE REAR DIRECTION INDICATOR BULBS

Carefully read p. 83 (BULBS).

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the screw (4).

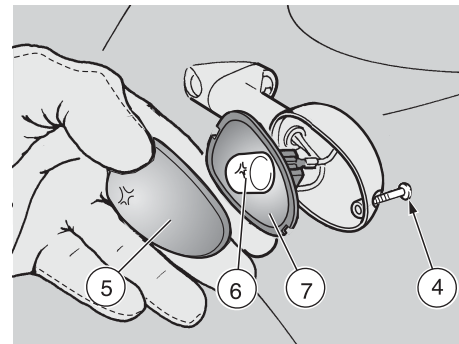
### ⚠ CAUTION

While removing the protection screen, proceed carefully in order not to break the cog.

- ◆ Remove the protection screen (5).

### ⚠ CAUTION

Upon reassembly, correctly position the protection screen in its seat. Tighten the screw (4) moderately and carefully, to avoid damaging the protection screen.



- ◆ Press the bulb (6) slightly and rotate it anticlockwise.
- ◆ Extract the bulb (6) from its seat.

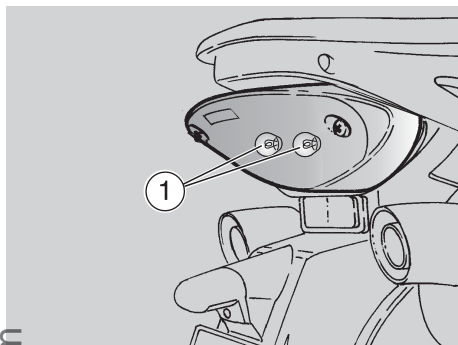
### ⚠ CAUTION

Insert the bulb in the bulb socket, making the two bulb pins coincide with the relevant guides on the socket.

- ◆ Correctly install a new bulb of the same type.

### ⚠ CAUTION

If the bulb socket (7) goes out of its seat, insert it correctly, making the bulb socket opening coincide with the screw seat.



## CHANGING THE REAR LIGHT BULB

Carefully read p. 83 (BULBS).

**NOTE** The rear light houses two parking light/stoptight bulbs (1).

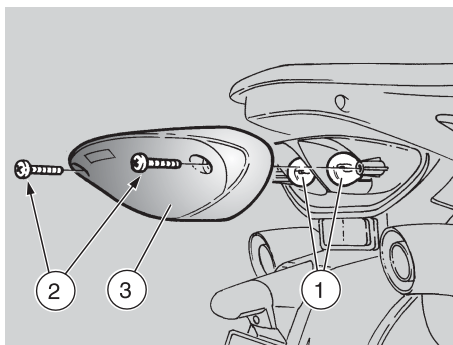
The following operations refer to a single bulb, but are valid for both.

Before changing a bulb, check the efficiency of the stoplight switches, see p. 80 (CHECKING THE SWITCHES).

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the two screws (2).
- ◆ Remove the protection screen (3).

**NOTE** Upon reassembly, correctly position the protection screen in its seat.

Tighten the screw (2) carefully, without exerting too much pressure, in order to



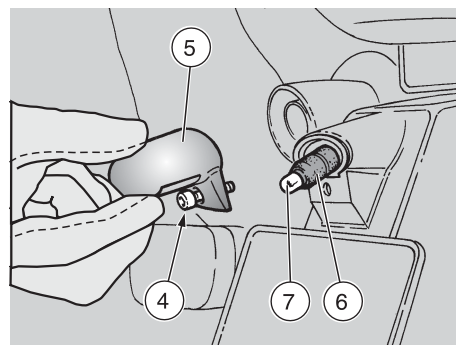
avoid damaging the protection screen.

- ◆ Press the bulb (1) slightly and rotate it anticlockwise.
- ◆ Extract the bulb (1) from its seat.

### ⚠ CAUTION

**Insert the bulb in the bulb socket, making the two bulb pins coincide with the relevant guides on the socket.**

- ◆ Correctly install a new bulb of the same type.



## CHANGING THE NUMBER PLATE BULB

Carefully read p. 83 (BULBS).

To change, proceed as follows:

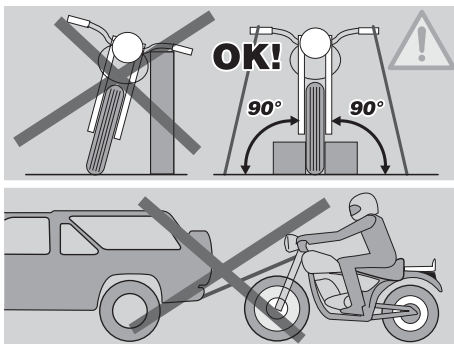
- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the screw (4), taking the nut.
- ◆ Remove the light unit (5).

### ⚠ CAUTION

**Do not pull the electric wires to extract the bulb socket.**

- ◆ Grasp the bulb socket (6), pull it and remove it from its seat.
- ◆ Withdraw the bulb (7) and replace it with a new one of the same type.

## TRANSPORT

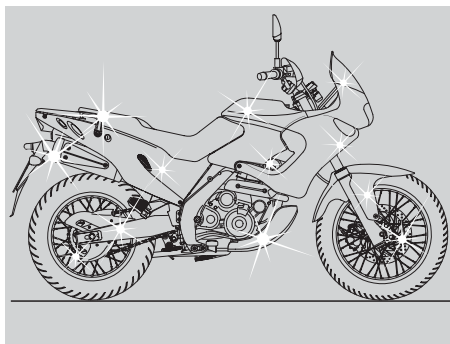


**NOTE** During transport, the vehicle must be kept in vertical position, it must be firmly anchored and the 1st gear must be engaged, in order to avoid any leak of fuel, oil, coolant.

### ⚠ CAUTION

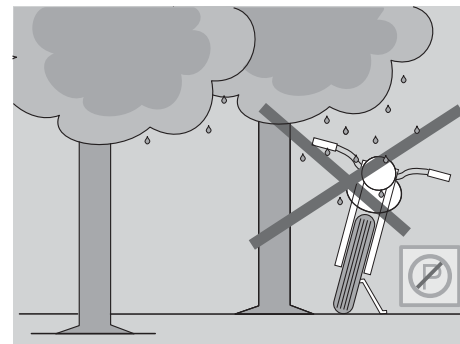
**In case of failure, do not tow the vehicle, but ask for assistance.**

## CLEANING



**Clean the vehicle frequently if it is used in particular areas or conditions, such as:**

- Polluted areas (cities and industrial areas).
- Areas characterized by an high percentage of salinity and humidity (sea areas, hot and humid climates).
- Particular conditions (use of salt and anti-ice chemical products on the roads during the winter).
- Avoid leaving deposits of industrial and polluting powders, tar spots, dead insects, bird droppings, etc. on the body.
- Avoid parking the vehicle under trees, since in some seasons residues, resins, fruits or leaves fall down, which contain substances that may damage the paint.



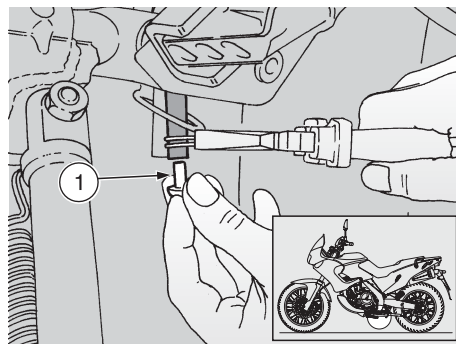
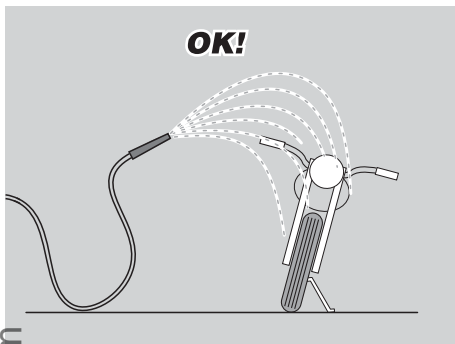
### ⚠ WARNING

**After the vehicle has been washed, its braking functions could be temporarily impaired because of the presence of water on the grip surfaces.**

**Calculate long braking distances to avoid accidents.**

**Brake repeatedly to restore normal conditions.**

**Carry out the preliminary checking operations, see p. 39 (PRELIMINARY CHECKING OPERATIONS).**



To remove dirt and mud from the painted surfaces use a low- pressure water jet, carefully wet the dirty parts, remove mud and filth with a soft car sponge impregnated with a lot of water and shampoo (2 – 4% parts of shampoo in water).

Then rinse with plenty of water and dry with chamois leather.

To clean the outer parts of the engine use a degreaser, brushes and wipers.

#### **After washing the vehicle, always:**

- ◆ Position the vehicle on the stand, see p. 49 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Remove the cap (1).
- ◆ Empty its content into a container and deliver it to a salvage centre.

#### **⚠ CAUTION**

**To clean the lights, use a sponge soaked with water and a neutral detergent, rubbing the surfaces delicately and rinsing frequently with plenty of water.**

**Polish with silicone wax only after having carefully washed the vehicle.**

**Do not use polishing pastes on matt paints.**

**Do not wash the vehicle under the sun, especially during the summer, when the body is still warm, since if the shampoo dries before being rinsed away, it can damage the paint.**

**Do not use liquids at a temperature exceeding 40°C to clean the plastic components of the vehicle.**

#### **⚠ CAUTION**

**Do not direct high-pressure water or air jets or steam jets on to the following components: wheel hubs, controls on the right and left side of the handlebar, bearings, brake pumps, instruments and indicators, exhaust pipes, glove/tool kit compartment, ignition switch/steering lock, radiator wings, fuel cap, lights and electric connections.**

**Do not use alcohol, petrol or solvents to clean the rubber and plastic parts and the saddle: use only water and mild soap.**

#### **⚠ WARNING**

**Do not apply protection waxes onto the saddle, in order not to make it too slippery.**



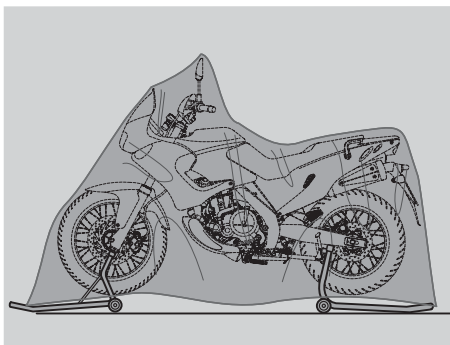
### LONG PERIODS OF INACTIVITY

After a long period of inactivity of the vehicle some precautions are necessary to avoid any problem.

Further, it is important to carry out the necessary repairs and a general check up before the period of inactivity, since you could forget to carry them out later.

#### Proceed as follows:

- ◆ Remove the battery, see p. 78 (REMOVING THE BATTERY) and p. 80 (LONG INACTIVITY OF THE BATTERY).
- ◆ Wash and dry the vehicle, see p. 87 (CLEANING).
- ◆ Polish the painted surfaces with wax.
- ◆ Inflate the tyres, see p. 33 (TYRES).



- ◆ Place the vehicle in an unheated, not-humid room, away from sunlight, with minimum temperature variations.

**NOTE** Position the vehicle on the front **OPT** and rear **OPT** support stands, so that both tyre are raised from the ground.

- ◆ Set the vehicle on the relevant front support stand, see 61 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND **OPT**).
- ◆ Put a plastic bag on each exhaust tailpipe and bind it around it, in order to prevent moisture from getting into the tailpipe.
- ◆ Cover the vehicle avoiding the use of plastic or waterproof materials.



### AFTER A PERIOD OF INACTIVITY

**NOTE** Withdraw the plastic bags from the exhaust tailpipes.

- ◆ Uncover and clean the vehicle, see p. 87 (CLEANING).
- ◆ Check the charge of the battery, see p. 79 (RECHARGING THE BATTERY) and install it, see p. 79 (INSTALLING THE BATTERY).
- ◆ Refill the fuel tank, see p. 24 (FUEL).
- ◆ Carry out the preliminary checking operations, see p. 39 (PRELIMINARY CHECKING OPERATIONS).

#### **WARNING**

**Have a test ride at moderate speed in a low-traffic area.**



## TECHNICAL DATA

DIMENSIONS	Max. length .....	2214 mm
	Max. width .....	910 mm
	Max. height (front part of the fairing included) .....	1253 mm
	Seat height .....	815 mm
	Distance between centres .....	1466 mm
	Min. ground clearance .....	200 mm
	Weight ready for starting .....	200 kg
ENGINE	Model .....	655 EFI
	Type .....	one-cylinder, 4-stroke with 5 valves, 2 camshafts at the head
	Number of cylinders .....	1
	Total displacement .....	652 cm <sup>3</sup>
	Bore/stroke .....	100 mm/83 mm
	Compression ratio .....	9 ± 0.5: 1
	Starting .....	electric
	Engine idling rpm .....	1300 ± 100 rpm
	Clutch .....	multidisc in oil bath, with control on the left side of the handlebar
TRANSMISSION	Lubrication system .....	dry pan with separate oil tank
	Air cleaner .....	with dry filter cartridge
	Cooling .....	liquid-cooled
TRANSMISSION	Type .....	mechanical, 5 gears with foot control on the left side of the engine
CAPACITY	Fuel (reserve included) .....	21 ℓ
	Fuel reserve .....	5 ℓ
	Engine oil .....	oil change 2150 cm <sup>3</sup> – oil and oil filter change 2200 cm <sup>3</sup>
	Fork oil .....	570 cm <sup>3</sup> (per rod)
	Coolant .....	1.4 ℓ (50% water + 50% antifreeze with ethylene glycol)
	<b>TBT VVE</b> . Coolant .....	1.25 ℓ (50% water + 50% antifreeze with ethylene glycol)
	Seats .....	2
	Vehicle max. load .....	180 kg (driver + passenger + luggage)

GEAR RATIOS	Ratio	Primary	Secondary	Final ratio	Total ratio
	1 <sup>a</sup>	37/72 = 1 : 1.946	12/33 = 1 : 2.750	16/46 = 1 : 2.875	15.385
	2 <sup>a</sup>		16/28 = 1 : 1.750		9.791
	3 <sup>a</sup>		16/21 = 1 : 1.312		7.34
	4 <sup>a</sup>		22/23 = 1 : 1.045		5.846
	5 <sup>a</sup>		24/21 = 1 : 0.875		4.895
DRIVE CHAIN	Type .....	endless (with no connection link) with sealed links			
	Model .....	525			
FUEL SUPPLY SYSTEM	Type .....	electronic injection (Multipoint)			
	Choke .....	Ø 34 mm			
FUEL SUPPLY	Fuel .....	Unleaded petrol according to the DIN 51 607 standard, min. O.N. 95 (N.O.R.M.) and 85 (N.O.M.M.)			
FRAME	Type .....	composite structure in steel and light alloy, with removable cradle and saddle pillar			
	Steering inclination angle .....	28°			
	Fore stroke .....	109 mm			
SUSPENSIONS	Front .....	upside-down telescopic adjustable fork with hydraulic operation, rod Ø 45 mm			
	Stroke .....	170 mm			
	Rear .....	oscillating rear fork with differentiated profile arms and hydraulic adjustable mono-shock absorber			
	Wheel stroke .....	165 mm			
BRAKES	Front .....	disc brake – Ø 300 mm – with hydraulic transmission			
	Rear .....	disc brake – Ø 240 mm – with hydraulic transmission			
WHEEL RIMS	Type .....	light alloy with spokes			
	Front .....	2.15 x 19"			
	Rear .....	3.00 x 17"			
TYRES	FRONT .....	100/90 – 19 57 H			
	– alternative .....	100/90 – R19 57 H; 100/90 – 19 57 S; 100/90 – 19 57 T			
	– Inflation pressure - solo rider				
	– off-road driving .....	190 kPa (1.9 bar)			
	– asphalted road .....	190 kPa (1.9 bar)			
	– Inflation pressure rider with passenger				
	– off-road driving .....	190 kPa (1.9 bar)			
	– asphalted road .....	190 kPa (1.9 bar)			





TYRES	REAR .....	130/80 – R17 65 H
	– alternative .....	140/70 – 17 66 H; 130/80 – 17 65 S; 130/80 – 17 65 T; 130/80 – 17 65 H
	– Inflation pressure - solo rider	
	– off-road driving .....	210 kPa (2.1 bar)
	– asphalted road .....	210 kPa (2.1 bar)
	– Inflation pressure rider with passenger	
IGNITION	– off-road driving .....	210 kPa (2.1 bar)
	– asphalted road .....	230 kPa (2.3 bar)
	Type .....	SAGEM - inductive ignition system
	Standard .....	NGK R DR8EB
	Spark plug gap .....	0.6 – 0.7 mm
	Resistance .....	5 kΩ
SPARK PLUGS	Battery .....	12 V – 12 Ah
	Fuses .....	7.5 A – 15 A – 20 A
	Generator (with permanent magnet) .....	12 V – 270 W
ELECTRIC SYSTEM		
BULBS	Low beam bulb/high beam .....	12 V – 55/60 W
	High beam .....	12 V – 60 W
	Front parking light .....	12 V – 3 W
	Direction indicators .....	12 V – 10 W
	Rear parking lights/Stoplight .....	12 V – 5/21 W
	Number plate light .....	12 V – 3 W
	Revolution counter .....	12 V – 2 W
	Speedometer .....	12 V – 2 W
	Coolant temperature indicator .....	12 V – 2 W
WARNING LIGHTS	Neutral .....	12 V – 3 W
	Direction indicators .....	12 V – 3 W
	Fuel reserve .....	12 V – 3 W
	High beam .....	12 V – 3 W
	Engine oil pressure .....	12 V – 3 W
	Diagnostics .....	12 V – 3 W

## LUBRICANT CHART

**Engine oil (recommended):**  SUPERBIKE 4, SAE 5W-40 or  Agip 4T FORMULA RACING, SAE 5W-40.

As an alternative to the recommended oil, it is possible to use high-quality oils with characteristics in compliance with or superior to the CCMC G-4, A.P.I. SG specifications.

**Fork oil (recommended):**  F.A. 5W or  F.A. 20 W fork oil;  
an alternative  Agip FORK 5W or  Agip FORK 20W fork oil.

If you need an oil with intermediate characteristics in comparison with the  F.A. 5W and  F.A. 20 W or  Agip FORK 5W and  Agip FORK 20W, these can be mixed as indicated below:

SAE 10W =  F.A. 5W 67% of the volume, +  F.A. 20W 33% of the volume or  
 Agip FORK 5W 67% of the volume +  Agip FORK 20W 33% of the volume.

SAE 15W =  F.A. 5W 33% of the volume, +  F.A. 20W 67% of the volume or  
 Agip FORK 5W 33% of the volume +  Agip FORK 20W 67% of the volume.

**Bearings and other lubrication points (recommended):**  AUTOGREASE MP or  Agip GREASE 30.

As an alternative to the recommended product, use high-quality grease for rolling bearings, working temperature range -30 °C...+140 °C, dripping point 150 °C...230 °C, high protection against corrosion, good resistance to water and oxidation.

**Protection of the battery poles:** neutral grease or Vaseline.

**Spray grease for chains (recommended):**  CHAIN SPRAY or  Agip CHAIN LUBE.

## WARNING

**Use new brake fluid only. Do not mix oils of different brand or type without checking components compatibility**

**Brake fluid (recommended):**  F.F., DOT 4 (compatible with DOT 5) or  Agip BRAKE 5.1, DOT 4 (compatible with DOT 5).

## WARNING

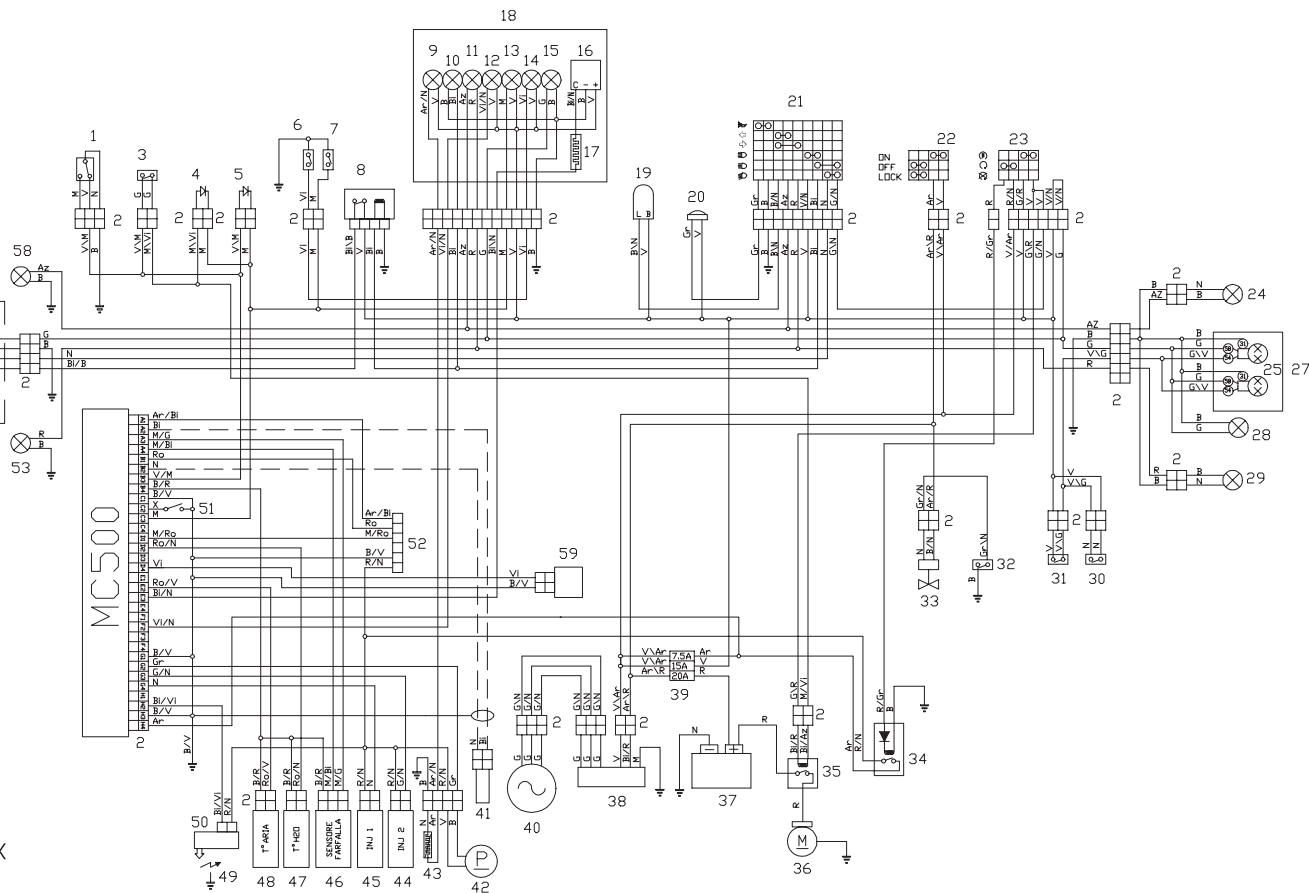
**Use only antifreeze and anticorrosive without nitrite, ensuring protection at -35 °C at least.**

**Engine coolant (recommended):**  ECOBLU -40 °C or  Agip COOL.

OILD-ING

# WIRING DIAGRAM - Pegaso 650 I.E.

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**WIRING DIAGRAM KEY - Pegaso 650 I.E.**

- |                                       |                                                                  |
|---------------------------------------|------------------------------------------------------------------|
| 1) Side stand switch                  | 34) Injection relay                                              |
| 2) Multiple connectors                | 35) Start relay                                                  |
| 3) Clutch control lever switch        | 36) Starter                                                      |
| 4) Diode 1                            | 37) Battery                                                      |
| 5) Diode 2                            | 38) Voltage regulator                                            |
| 6) Engine oil pressure switch         | 39) Fuses                                                        |
| 7) Neutral gear switch                | 40) Generator                                                    |
| 8) Light relay                        | 41) Pick up                                                      |
| 9) Low fuel warning light             | 42) Fuel pump                                                    |
| 10) High beam warning light           | 43) Low fuel sensor                                              |
| 11) Direction indicator warning light | 44) Injector 2                                                   |
| 12) Diagnostic warning light          | 45) Injector 1                                                   |
| 13) Neutral warning light             | 46) Throttle valve position sensor                               |
| 14) Engine oil pressure Warning light | 47) Coolant temperature thermistor                               |
| 15) Dashboard bulbs                   | 48) Air thermistor                                               |
| 16) Coolant temperature indicator     | 49) Spark plug                                                   |
| 17) Dashboard resistance              | 50) Coil                                                         |
| 18) Dashboard                         | 51) Octane number selection (not provided as standard equipment) |
| 19) Blinking                          | 52) Diagnostic connection                                        |
| 20) Horn                              | 53) Front right direction indicator                              |
| 21) Left dimmer switch                | 54) High beam bulb                                               |
| 22) Ignition switch                   | 55) Low beam bulb/high beam                                      |
| 23) Right dimmer switch               | 56) Front parking light bulb                                     |
| 24) Rear left direction indicator     | 57) Headlight                                                    |
| 25) Parking light bulb/rear stoplight | 58) Front left direction indicator                               |
| 26) Electronic unit                   | 59) Fall sensor                                                  |
| 27) Rear light                        | X) Shielded cables                                               |
| 28) Number plate bulb                 |                                                                  |
| 29) Rear right direction indicator    |                                                                  |
| 30) Front stoplight switch            |                                                                  |
| 31) Rear stoplight switch             |                                                                  |
| 32) Thermal switch cooling electrofan |                                                                  |
| 33) Cooling electrofan                |                                                                  |

**CABLE COLOURS**

<b>Ar</b>	Orange
<b>Az</b>	Light blue
<b>B</b>	Blue
<b>Bi</b>	White
<b>G</b>	Yellow
<b>Gr</b>	Grey
<b>M</b>	Brown
<b>N</b>	Black
<b>R</b>	Red
<b>Ro</b>	Pink
<b>V</b>	Green
<b>Vi</b>	Violet

### THE VALUE OF SERVICE



Thanks to ongoing technical updates and product-specific technical training, **aprilia** Authorised Network engineers are familiar with every detail of this vehicle and have the special equipment required for correct maintenance and repair.

A vehicle kept in sleek running order is a reliable vehicle. Pre-ride checks, proper maintenance at the recommended intervals and using **aprilia** Original Parts only are other key factors!

To find contact information of the Official Dealer and/or Service Centre nearest you, please consult the Yellow Pages or the map provided at our web site :

# [www.aprilia.com](http://www.aprilia.com)

When you demand **aprilia** Original Parts, you are purchasing products that have been developed and tested as early as the vehicle design stage. **aprilia** Original Parts systematically undergo strict quality control procedures to ensure total reliability and long service life.

**aprilia s.p.a.** wishes to thank its customers for the purchase of this vehicle.

- Do not dispose of oil, fuel, polluting substances and components in the environment.
- Do not keep the engine running if it isn't necessary.
- Avoid disturbing noises.
- Respect nature.