



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. 43 (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)

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 – electrolyte level	①	①	–
Spark plug	–	①	③
Air cleaner	–	①	③
Engine oil filter	③	③	–
Engine oil filter (on oil tank)	②	–	②
Fork	①	–	①
Light operation/direction	–	①	–
Light system	①	①	–
Safety switches			
Brake fluid	–	①	–
Coolant	–	–	①
Engine oil	③	③ (*)	–
Side bag coupling pins (**)	–	①	–
Tyres	every 1000 km (625 mi): ①		
Tyre pressure (*)	every 1000 km (625 mi): ④		
Engine idling rpm	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.

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
Timing 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		
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		
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	–

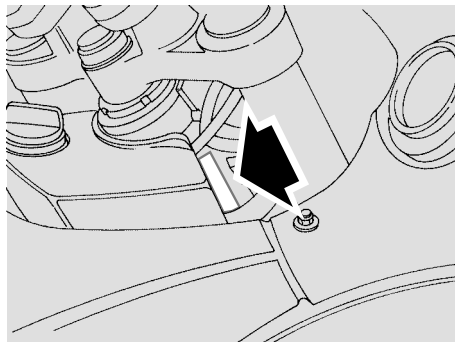


## IDENTIFICATION DATA

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.

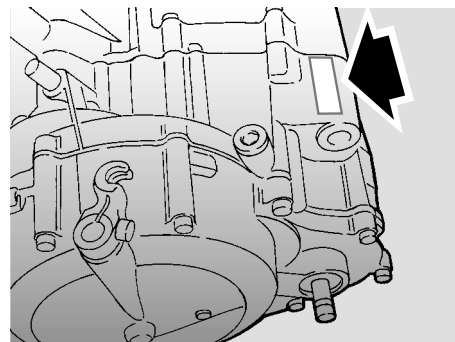
**NOTE** Do not alter the identification numbers if you do not want to incur severe penal and administrative sanctions. In particular, the alteration of the frame number results in the immediate invalidity of the guarantee.



## FRAME NUMBER

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

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



## ENGINE NUMBER

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

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



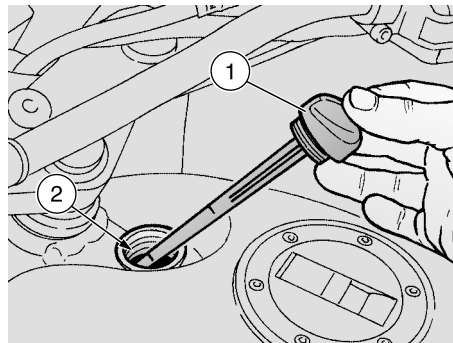
## CHECKING THE ENGINE OIL LEVEL AND TOPPING UP

Carefully read p. 37 (ENGINE OIL) and p. 55 (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, see p. 60 (CHANGING THE ENGINE OIL AND THE OIL FILTER).

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. 51 (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

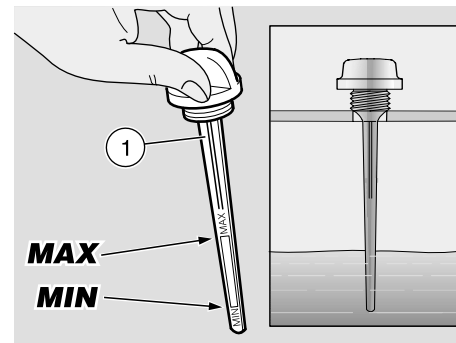
**MIN** = minimum level.

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. 104 (LUBRICANT CHART).

- ◆ After extracting the plug-dipstick (1), top up the tank through the inlet hole (2) until reaching the correct level, see p. 104 (LUBRICANT CHART).

## CHANGING THE ENGINE OIL AND THE OIL FILTER

### ⚠ CAUTION

The engine oil and the oil filter change operations 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. 37 (ENGINE OIL) and p. 55 (MAINTENANCE).

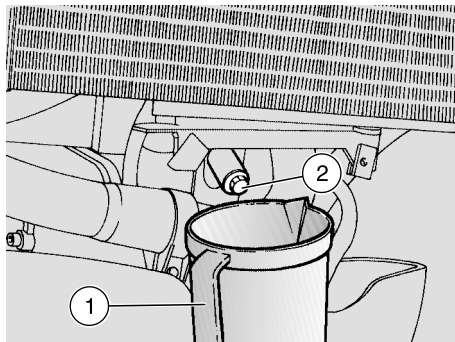
Periodically check the engine oil level, see p. 59 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP) change the oil after the first 1000 km (625 mi) and successively every 6000 km (3750 mi) or 12 months.

### ⚠ CAUTION

If the vehicle is used in dusty areas, change the oil more frequently.

### ⚠ WARNING

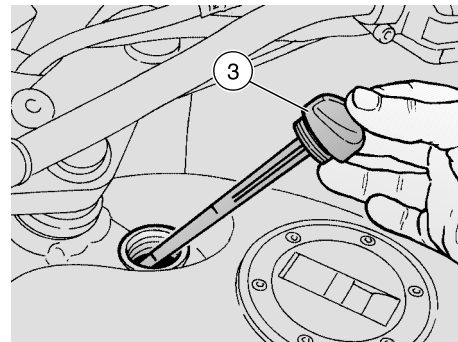
When warmed up, the engine contains hot oil; therefore, while carrying out the operations described here below be particularly careful, in order to avoid burns.



To change, 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).

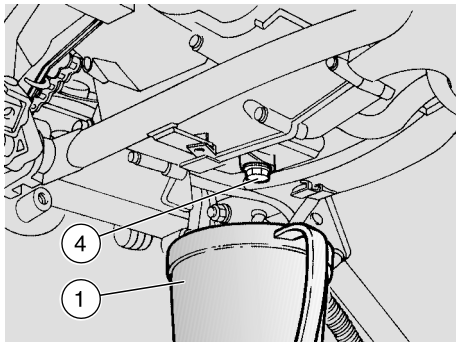
- ◆ Stop the engine, see p. 51 (STOPPING).
- ◆ Keep the vehicle in vertical position, with the two wheels resting on the ground.
- ◆ Remove the oil sump guard, see p. 73 (REMOVING THE OIL SUMP GUARD).
- ◆ Position a container (1) with more than 2500 cm<sup>3</sup> capacity in correspondence with the drain plug (2) positioned on the tank.



- ◆ Unscrew and remove the drain plug (2) positioned on the tank.
- ◆ Unscrew and remove the plug-dipstick (3).
- ◆ Drain the oil and let it drip into the container (1) for a few minutes.
- ◆ Check and if necessary replace the sealing washer of the drain plug (2) positioned on the tank.
- ◆ Screw and tighten the drain plug (2) on the tank.

**Drain plug (2) driving torque: 22 Nm (2.2 kgm).**

- ◆ Move the container (1) and position it under the engine base, in correspondence with the drain plug positioned on the engine (4).
- ◆ Unscrew and remove the drain plug positioned on the engine (4).
- ◆ Drain the oil and let it drip into the container (1) for a few minutes.



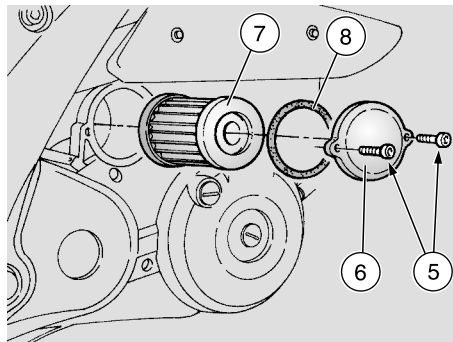
### ⚠ CAUTION

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.

- ◆ Remove the metal residues from the drain plug (4) magnet.
- ◆ Screw and tighten the drain plug (4).

**Driving torque of the drain plug (4) positioned on the engine: 40 Nm (4.0 kgm).**

- ◆ Clean the parts dirty with oil with a cloth.



### CHANGING THE ENGINE OIL FILTER

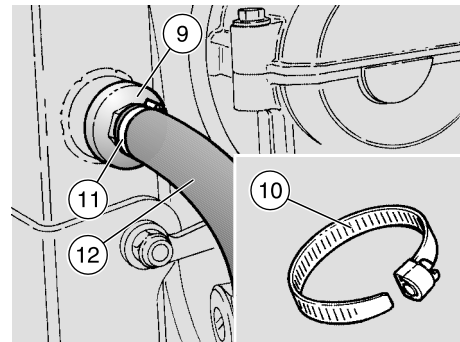
Change the engine oil filter after the first 1000 km (625 mi) and successively every 6000 km (3750 mi) or 12 months (on each engine oil change).

- ◆ Unscrew the two screws (5) and remove the cover (6).
- ◆ Remove the engine oil filter (7).

### ⚠ CAUTION

**Do not use filters that have already been used.**

- ◆ Spread an oil film on the sealing ring (8) of the new engine oil filter.
- ◆ Fit the new engine oil filter.
- ◆ Put back the cover (6), screw and tighten the two screws (5).

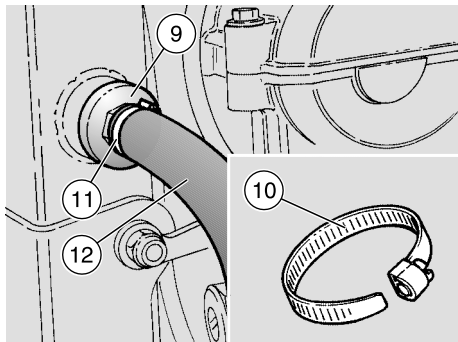


### CLEANING THE ENGINE OIL FILTER ON THE TANK

Clean the engine oil filter (9) on the tank after the first 1000 km (625 mi) and successively every 12000 km (7500 mi) (or every two engine oil changes).

**NOTE** Prepare a screwdriver-type pipe clamp (10) to replace the original one (special type).

- ◆ Remove the fuel tank, see p. 72 (REMOVAL OF THE FUEL TANK).
- ◆ Loosen the clamp (11) and disconnect the pipe (12).
- ◆ Unscrew the engine oil filter (9) positioned on the tank.



- ◆ Pull the engine oil filter (9) and clean it with a jet of compressed air.
- ◆ Check the seal of the engine oil filter (9) positioned on the tank; screw and tighten it.

**Engine oil filter (9) driving torque: 35 Nm (3.5 kgm).**

- ◆ Connect the pipe (12) and tighten the new clamp (10).

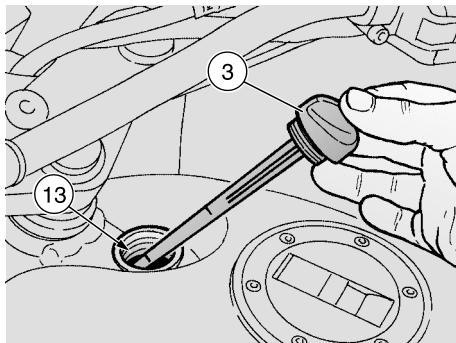
### **CAUTION**

**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. 104 (LUBRICANT CHART).

- ◆ Pour about 1600 cm<sup>3</sup> of engine oil through the filling opening (13), see p. 104 (LUBRICANT CHART).



- ◆ Screw the plug-dipstick (3).
- ◆ Put back the fuel tank, see p. 72 (REMOVAL OF THE FUEL TANK).
- ◆ Put back the oil sump guard, see p. 73 (REMOVING THE OIL SUMP GUARD).
- ◆ Start the engine, see p. 44 (STARTING) and let it idle for about one minute, in order to ensure the filling up of the engine oil circuit.
- ◆ Check the oil level and top up if necessary, see p. 59 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP).



### **AIR CLEANER**

Check the air cleaner every 6000 km (3750 mi) or 12 months, change it every 12000 km (7500 mi) or more frequently if the vehicle is used on dusty or wet roads.

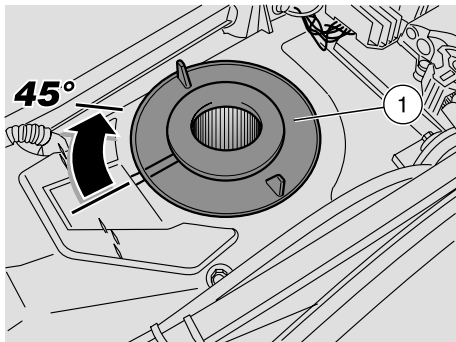
It is possible to clean the air cleaner partially after using the vehicle on this kind of roads.

### **CAUTION**

**The partial cleaning of the filter does not exclude or postpone the replacement of the filter itself. Do not start the engine if the air cleaner has been removed. Do not clean the filtering element with petrol or solvents, since they may cause a fire in the fuel supply system, with serious danger for the persons in the vicinity and for the vehicle.**

**DO NOT DISPOSE OF POLLUTING SUBSTANCES OR COMPONENTS IN THE ENVIRONMENT.**





## REMOVAL

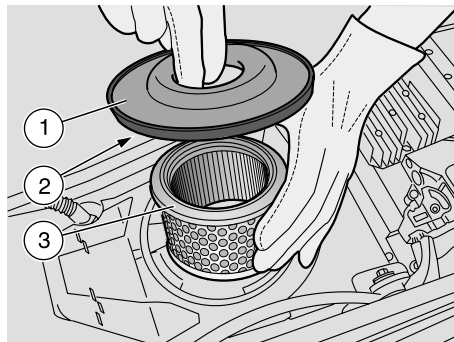
- ◆ Remove the rider saddle, see p. 21 (UNLOCKING/LOCKING THE SADDLE).
- ◆ Rotate the air conveyor (1) clockwise, then lift and remove it.
- ◆ Check the conditions of the gasket (2) and change it if it is damaged.
- ◆ Extract the air cleaner (3).

## ⚠ CAUTION

**Plug the opening with a clean cloth, in order to prevent any foreign matter to get into the suction ducts.**

**Make sure that the filtering element is positioned correctly, in such a way as to prevent non-filtered air from entering.**

**Remember that the untimely wear of the piston segments and the cylinder may be caused by a faulty or incorrectly positioned filtering element.**



## PARTIAL CLEANING

### ⚠ CAUTION

**Do not press or strike the metal net of the air cleaner (3).**

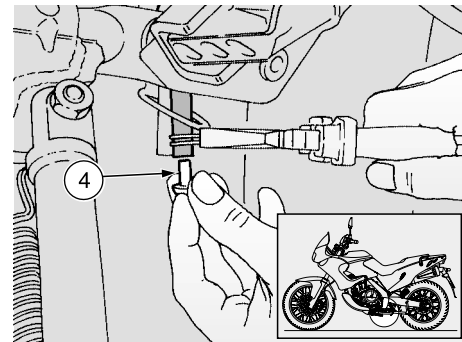
**Do not use screwdrivers or alike.**

- ◆ Seize the air cleaner (3) vertically and strike it more than once on a clean surface.
- ◆ If necessary, clean the air cleaner (3) with a compressed air jet (directing it from the inside towards the outside of the filter).

### ⚠ CAUTION

**When cleaning the filtering element, make sure that there are no tears. Otherwise, change the filtering element.**

- ◆ Clean the outer part of the air cleaner (3) with a clean cloth.



## CHANGING

### ⚠ CAUTION

**Do not use filters that have already been used.**

- ◆ Replace the air cleaner (3) with a new one of the same type.
- ◆ Put back the saddle, see p. 21 (UNLOCKING/LOCKING THE SADDLE).
- ◆ Every 6000 km (3750 mi) or 12 months, remove the plug (4). Empty its content into a container and deliver it to a salvage centre.

## 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. 55 (MAINTENANCE).

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

### ⚠ WARNING

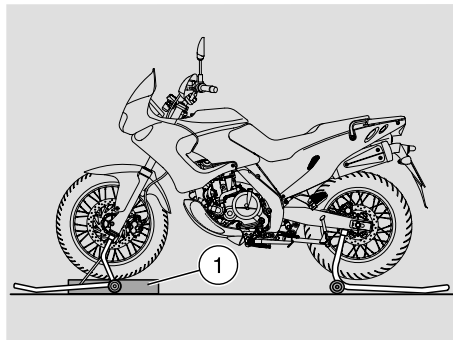
Riding with damaged rims may be dangerous for the rider, other persons and the vehicle.

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. 69 (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

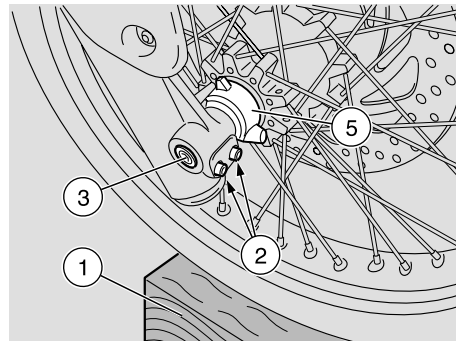
Make sure that the vehicle is stable.

- ◆ 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.



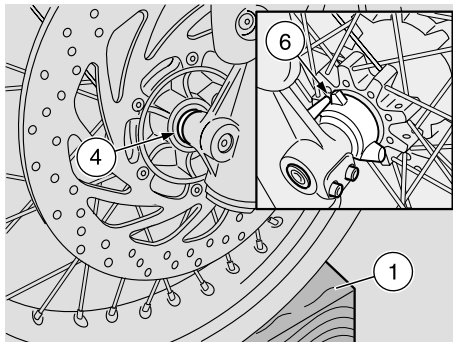
- ◆ Remove the speedometer/odometer control (5) from the wheel seat.

**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. 104 (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. 69 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND **OPT**).
- ◆ Remove the rear support stand, see p. 69 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND **OPT**).

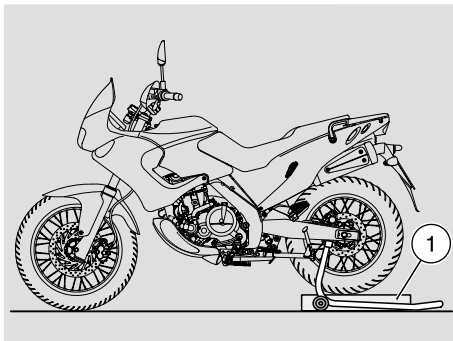
- ◆ With pulled front brake lever, press the handlebar repeatedly, thrusting the fork downwards. In this way the fork rods will settle properly.
- ◆ Position the vehicle on the stand, see p. 52 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Tighten the two wheel pin clamp screws (2) (right side).

**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.

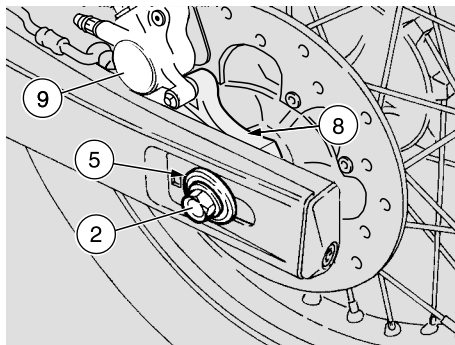
If necessary, contact your **aprilia** Official Dealer.

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

Carefully read p. 55 (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

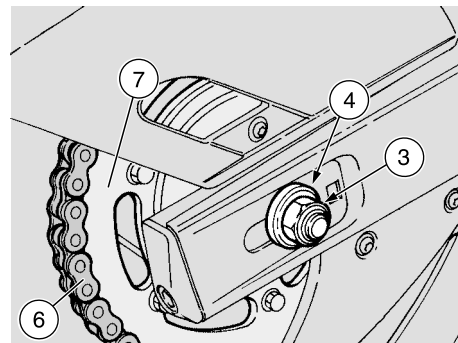
Riding with damaged rims may be dangerous for the rider, other persons and the vehicle.

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. 69 (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).**

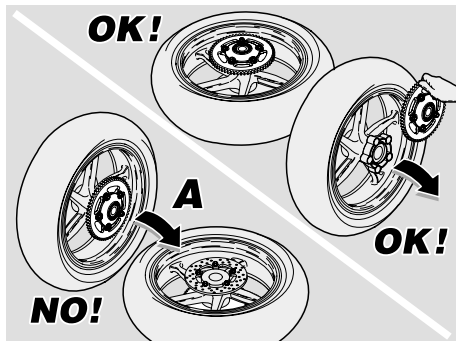


**NOTE** To facilitate the extraction of the wheel pin, slightly raise the wheel.

- ◆ 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.

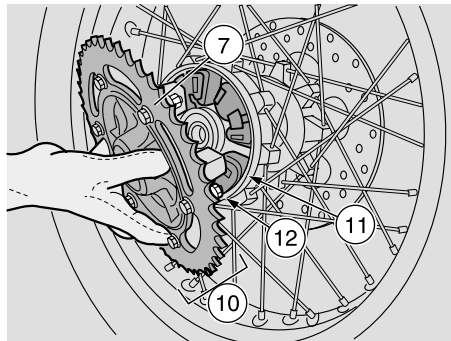


### ⚠ CAUTION

**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) of the 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 (A), since the final drive unit would come off and fall down, with the risk of damaging the rear sprocket (7).

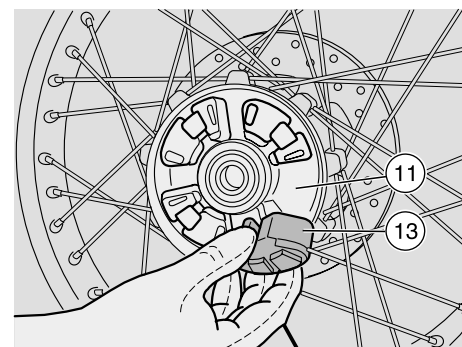


**NOTE** The removal of the final drive unit isn't necessary if the wheel is in the normal running position (vertical) or in horizontal position with the rear sprocket facing upwards and in both cases secured against overturning.

**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).

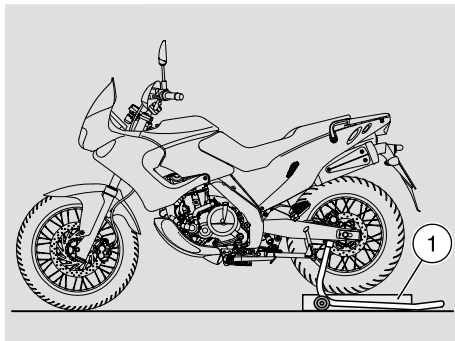
**NOTE** Check the conditions of the four flexible couplings (13); if they are damaged or excessively worn, change them, see p. 56 (REGULAR SERVICE INTERVALS CHART).



### 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.

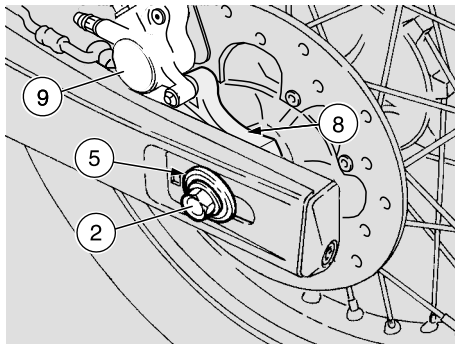
Insert the disc in the brake caliper carefully.

- ◆ 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. 104 (LUBRICANT CHART).



### ⚠ WARNING

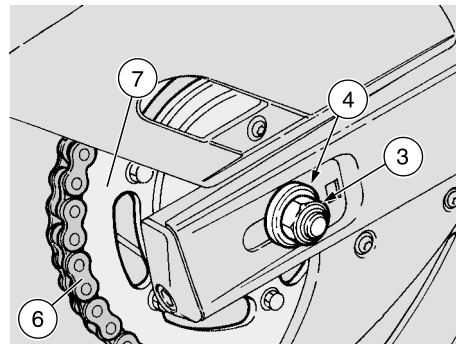
Danger of injury.

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).

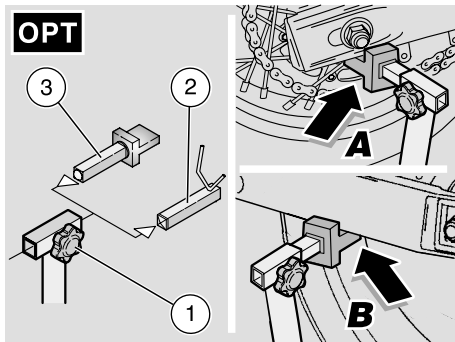
- ◆ Make sure that the following components are not dirty:

- tyre;
- wheel;
- brake discs.

### ⚠ 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.



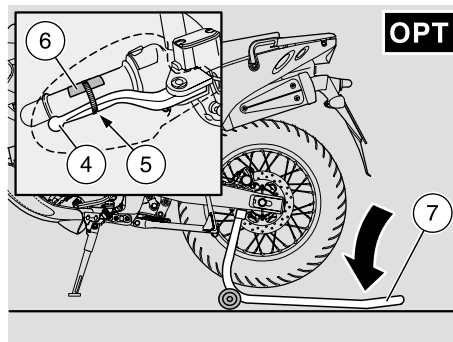
### POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND **OPT**

- ◆ 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. 74 (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

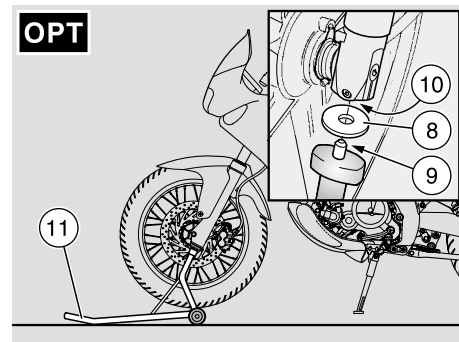


support pins (3) rest on the lower part of the rear fork rods:

- 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.

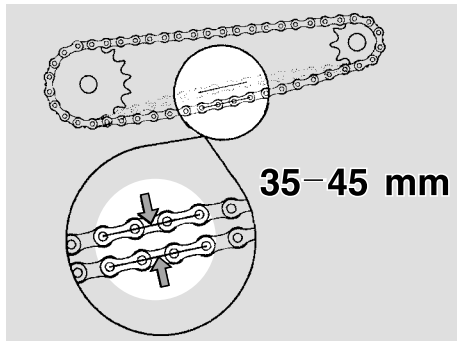
- ◆ Rest one foot on the rear part of the stand (7).
- ◆ Push the stand (7) downwards until it reaches the end of its stroke (see figure).



### 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. 69 (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. 55 (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. 70 (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.

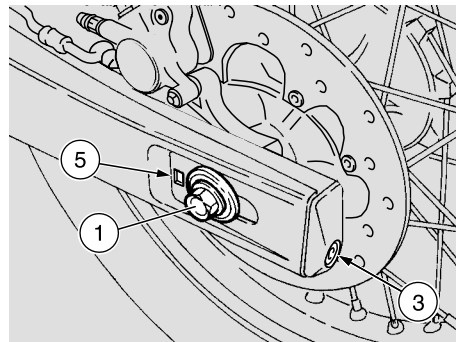
## CHECKING THE SLACK

To check the slack, proceed as follows:

- ◆ Stop the engine, see p. 51 (STOPPING).
- ◆ Position the vehicle on the appropriate rear support stand, see p. 69 (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. 71 (CLEANING AND LUBRICATION).



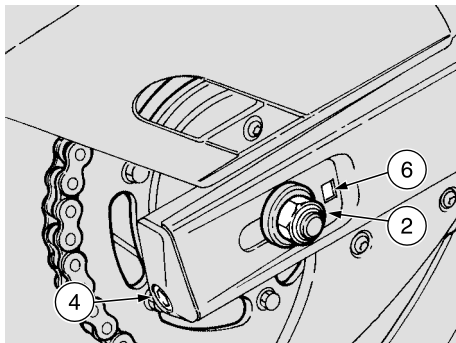
If the clearance is slack is uniform, but higher than **45 mm** or lower than **35 mm**, adjust it, see p. 70 (ADJUSTMENT).

## 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. 69 (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. 70 (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.

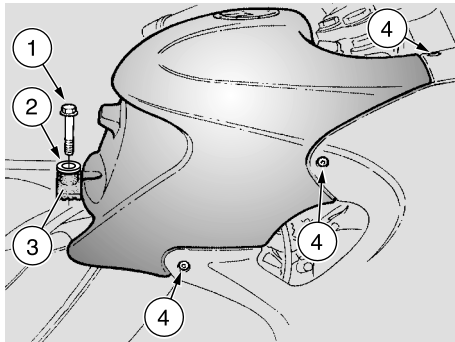
Lubricate the chain every 500 km (312 mi) or whenever necessary.

- ◆ After washing the chain and letting it dry, lubricate it with spray grease for chains provided with sealing rings, see p. 104 (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. 27 (FUEL) and p. 55 (MAINTENANCE).

### ⚠ WARNING

Risk of fire.

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

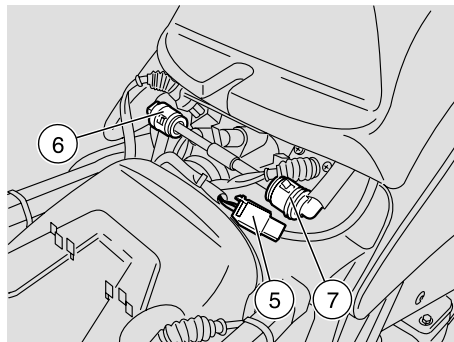
Fuel vapours are noxious for your health.

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.**



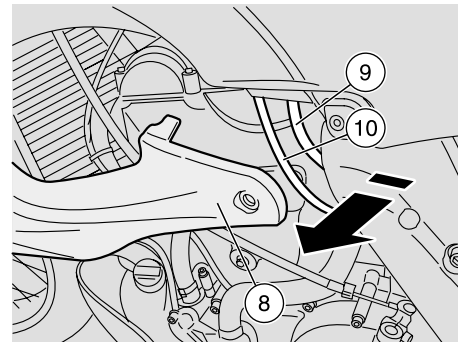
- ◆ Turn the ignition switch to position "X".
- ◆ Remove the rider saddle, see p. 21 (UNLOCKING/LOCKING THE SADDLE).
- ◆ Unscrew and remove the centre screw (1).
- ◆ Take the washer (2) and the rubber pad (3).
- ◆ ★ Unscrew and remove the three screws (4).
- ◆ Disconnect the electric connector (5) from 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:**

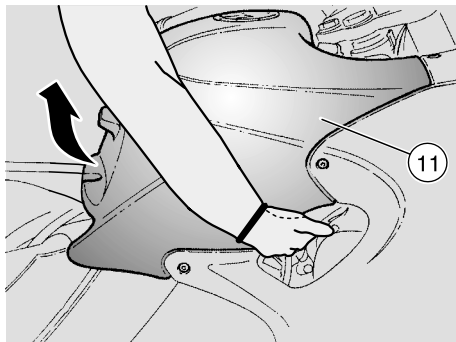
- ◆ Move the fairing (8) moderately towards the outside.

**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).



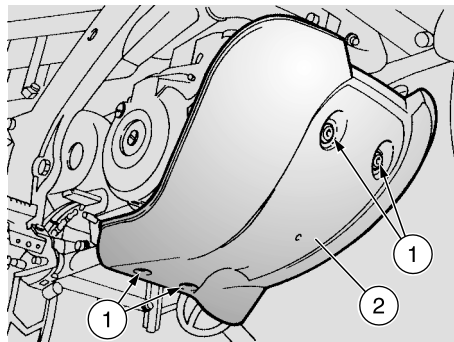
### ⚠ CAUTION

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. 55 (MAINTENANCE).

### ⚠ WARNING

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

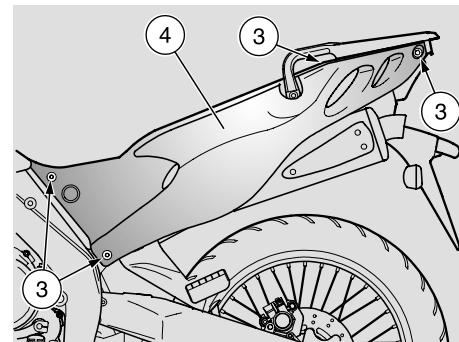
- ◆ Position the vehicle on the stand, see p. 52 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the four screws (1).

### ⚠ 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 55 (MAINTENANCE).

### ⚠ WARNING

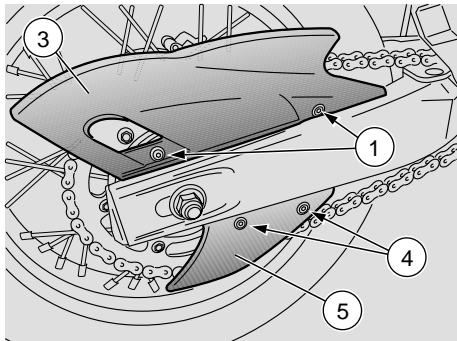
Wait until the engine and the exhaust silencer have completely cooled down.

- ◆ Remove the saddle, see p 21 (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.

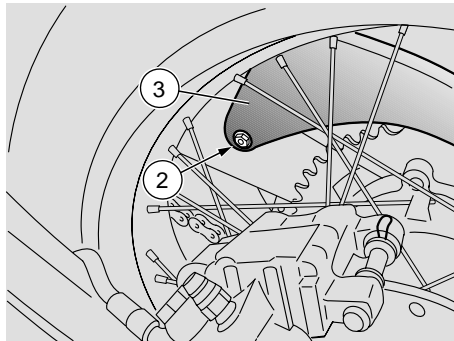
**NOTE** If the heat-resistant material inside the oil sump guard (4) is deteriorated, contact an **aprilia** Official Dealer to have it changed.



## REMOVING THE DRIVE CHAIN GUARDS

Carefully read 55 (MAINTENANCE).

- ◆ Position the vehicle on the stand, see p. 52 (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).



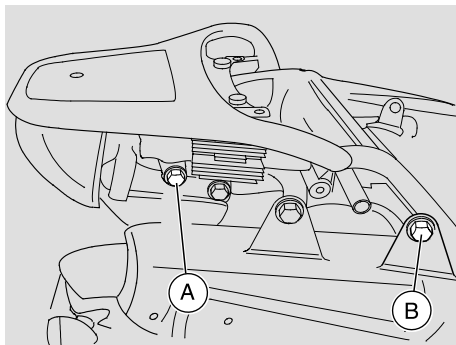
## INSTALLING THE SIDE BAG SUPPORTS **OPT** (supplied as standard equipment in the countries where required)

**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. 76 [INSTALLING THE REAR CASE SUPPORTS **OPT** (supplied as standard equipment in the countries where required)].

Carefully read 55 (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).

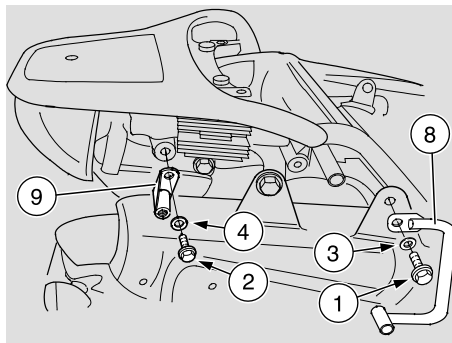


**NOTE** The operations marked with ★ are not necessary if the rear case supports are installed.

- ◆ ★ Remove the side panels, see p. 73 (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).



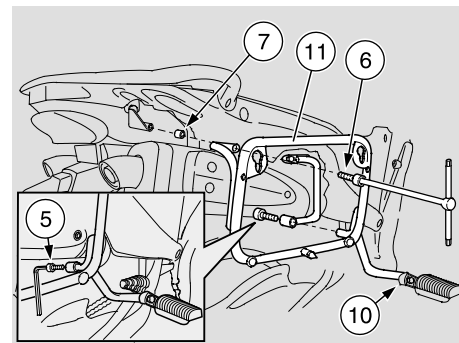
- ◆ ★ Put back the nut (10) and screw it manually.
- ◆ ★ ★ Position the spacer ring (7).
- ◆ ★ Insert the screws (5) (6) and screw them manually.
- ◆ ★ Tighten the screws (5) (6) and the nut (10), without applying the torque prescribed.
- ◆ ★ Tighten the screw (1) and the screw (2), applying the torque 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. 73 (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.

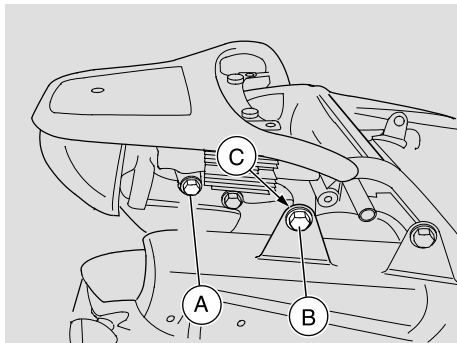
**Driving torque of screws (5) (6): 25 Nm (2.5 kgm).**

- ◆ ★ 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. 24 [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)

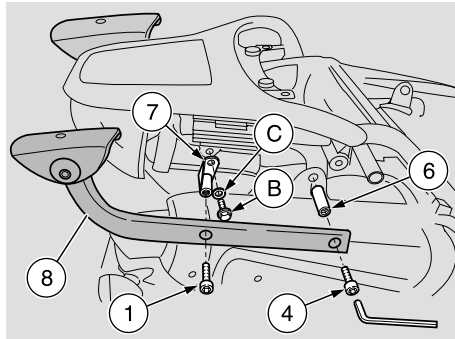
Carefully read 55 (MAINTENANCE).

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 lock nuts (5);
- two spacers (6);
- two rear couplings (7).

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

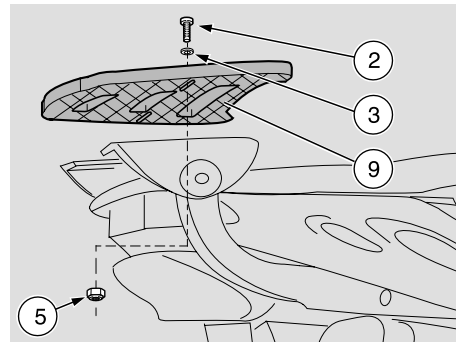
- ◆ ★ Remove the side panels, see p. 73 (REMOVING THE RIGHT AND LEFT SIDES).



- ◆ ★ 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. 73 (REMOVING THE RIGHT AND LEFT SIDES).
- ◆ Install the rear case, see p. 26 [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.

## CHECKING THE STEERING

### ⚠ CAUTION

The operations necessary to check the steering require specific knowledge and experience, therefore it is advisable to contact an **aprilia** Official Dealer.

## CHECKING THE REAR FORK FULCRUM AXIS

### ⚠ CAUTION

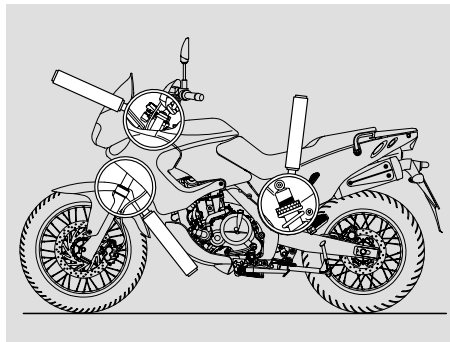
The operations necessary to check the rear fork fulcrum axis require specific knowledge and experience, therefore it is advisable to contact an **aprilia** Official Dealer.

## INSPECTING THE FRONT AND REAR SUSPENSIONS

Carefully read p. 55 (MAINTENANCE).

**NOTE** Have the front fork oil changed by an **aprilia** Official Dealer, who will ensure you prompt and accurate servicing.

Have the front fork oil changed every 12000 km (7500 mi).

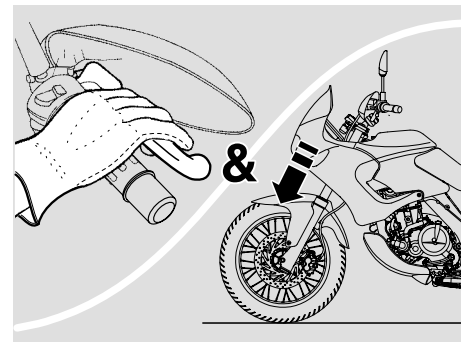


Carry out the following checks after the first 1000 km (625 mi) and successively every 12000 km (7500 mi):

- ◆ With pulled front brake lever, press the handlebar repeatedly, thrusting the fork downwards. The stroke must be gentle and there must be no trace of oil on the rods.
- ◆ Check the fastening of all the components and the functionality of the front and rear suspension joints.

### ⚠ CAUTION

If you notice irregularities in the operation or if the help of a qualified technician is necessary, contact your **aprilia** Official Dealer.



## FRONT SUSPENSION

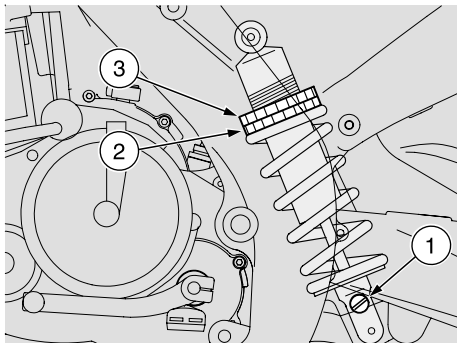
Have the fork oil seals changed by a **aprilia** Official Dealer after the first 30000 km (18750 mi) and successively every 22500 km (14000 mi).

The front suspension consists of an hydraulic fork connected to the steering column by means of two plates.

The standard setting of the front fork is adjusted in such a way as to be suitable for most driving conditions, at high and low speed, for the transport of the rider with luggage.

### ⚠ CAUTION

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



## 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).

## 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.



## ⚠ CAUTION

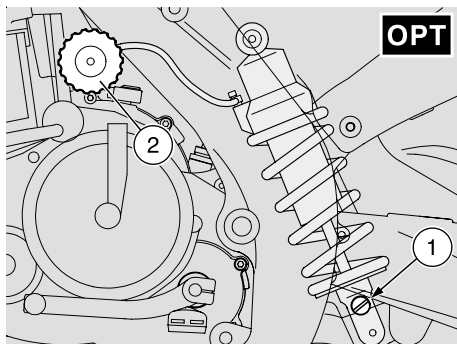
**Adjust the spring preload and the hydraulic braking with extended shock absorber according to the conditions of use of the vehicle.**

**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.**





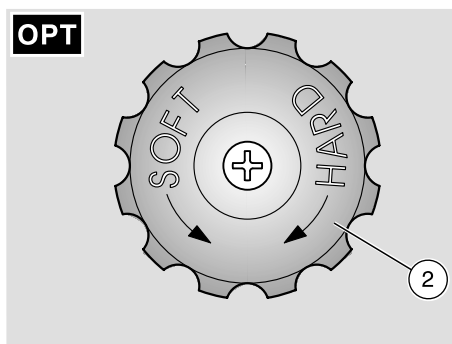
## REAR SUSPENSION WITH HYDRAULIC PRELOAD ADJUSTMENT **OPT**

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

### **⚠ CAUTION**

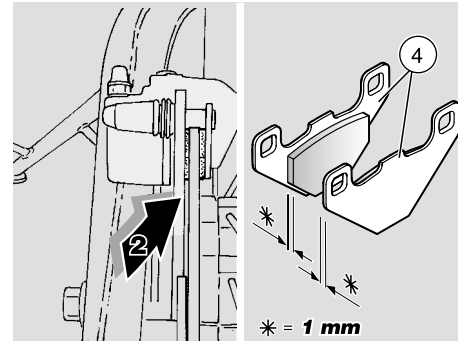
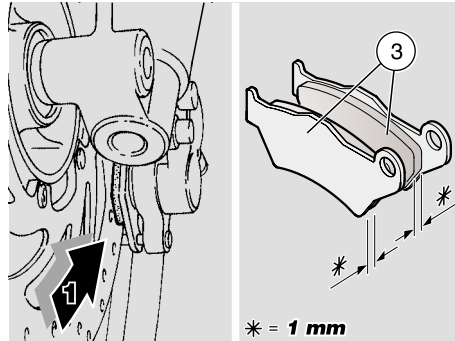
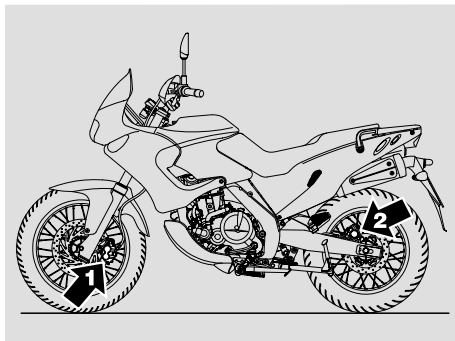
**Adjust the spring preload and the hydraulic braking with extended shock absorber according to the conditions of use of the vehicle.**

**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. 29 (BRAKE FLUID - recommendations), p. 30 (DISC BRAKES) and p. 55 (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. 52 (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 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. 55 (MAINTENANCE).

Adjust the idling every time it is irregular.

To carry out this operation, proceed as follows:

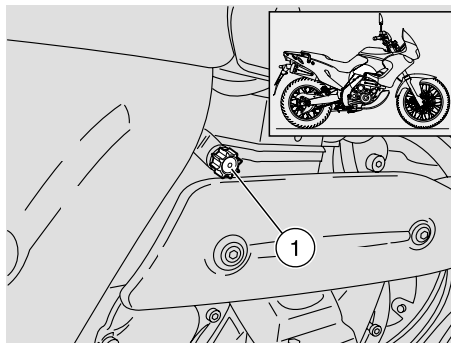
- ◆ Ride for a few miles until reaching the normal running temperature, see p. 17 (Coolant temperature indicator “ $\text{上}$ ”).
- ◆ Position the gear lever in neutral (green warning light “ $\text{N}$ ” on).
- ◆ Check the engine idling rpm on the revolution counter.

The engine idling speed must be about  $1300 \pm 100$  rpm.

If necessary, proceed as follows:

- ◆ Turn the adjusting knob (1).
  - 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.

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



## ADJUSTING THE ACCELERATOR CONTROL

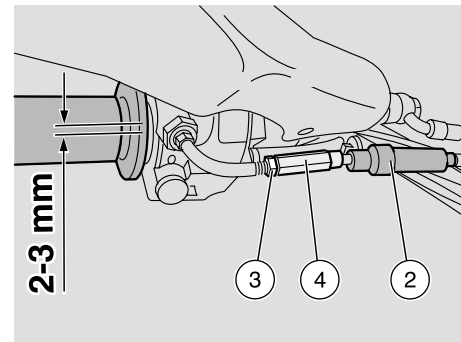
Carefully read p. 55 (MAINTENANCE).

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:

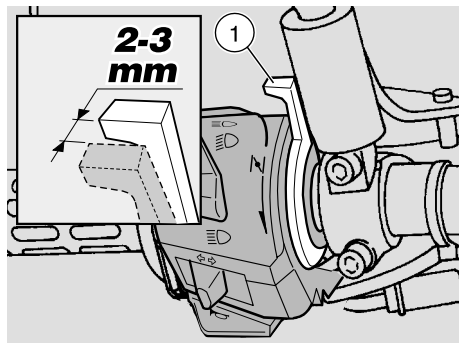
- ◆ Position the vehicle on the stand, see p. 52 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Withdraw the protection element (2).
- ◆ Loosen the lock nut (3).
- ◆ Rotate the adjuster (4) in such a way as to restore the prescribed value.



- ◆ After the adjustment, tighten the lock nut (3) and check the idle stroke again.
- ◆ Put back the protection element (2).

## ⚠ 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.

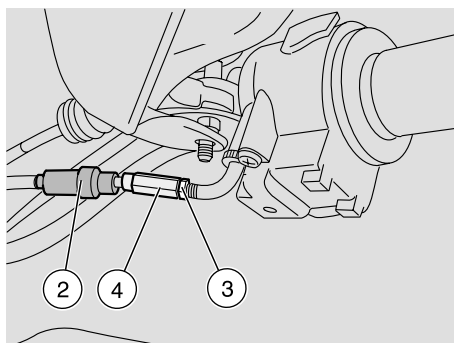


## ADJUSTING THE COLD START CONTROL

Carefully read p. 55 (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 (1) must be **2–3 mm**, measured on the edge of the control itself.



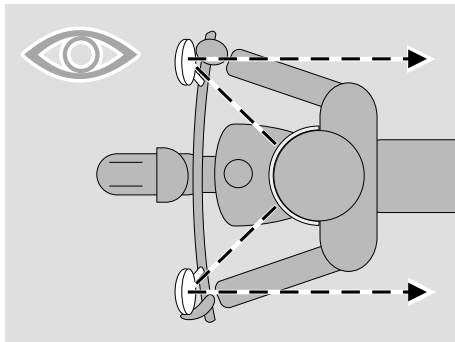
If not, proceed as follows:

- ◆ Position the vehicle on the stand, see p. 52 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Withdraw the protection element (2).
- ◆ Loosen the lock nut (3).
- ◆ Rotate the adjuster (4) in such a way as to restore the prescribed value.
- ◆ After the adjustment, tighten the lock nut (3) and check the idle stroke again.
- ◆ Put back the protection element (2).

### ⚠ CAUTION

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





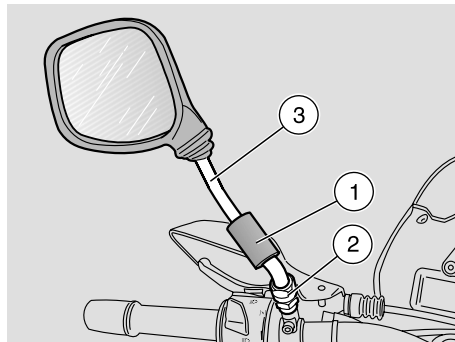
## REAR-VIEW MIRRORS

### ⚠ WARNING

Do not use the vehicle with the rear-view mirrors turned incorrectly. Before leaving, always make sure that the rear-view mirrors are not rotated upwards and are correctly adjusted.

### ⚠ WARNING

For the adjustment of the rear-view mirrors, wear clean gloves or use a clean cloth, in order to avoid dirtying the reflecting surface and reducing visibility.



## REMOVING THE REAR-VIEW MIRRORS

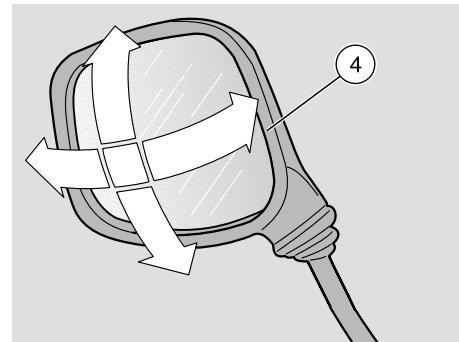
- ◆ Position the vehicle on the stand, see p. 52 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Raise the protection element (1).
- ◆ Loosen and remove the stop nut (2).

### ⚠ CAUTION

Upon reassembly, before tightening the lock nut (2), make sure that the rear-view mirror support rod is directed in such a way as to be aligned with the handlebar.

- ◆ Withdraw the entire rear-view mirror unit (3) upwards and remove it.

Repeat these operations to remove the other rear-view mirror.



## ADJUSTMENT OF THE REAR-VIEW MIRRORS

- ◆ Get on the vehicle in riding position, see p. 40 (GETTING ON AND OFF THE VEHICLE).

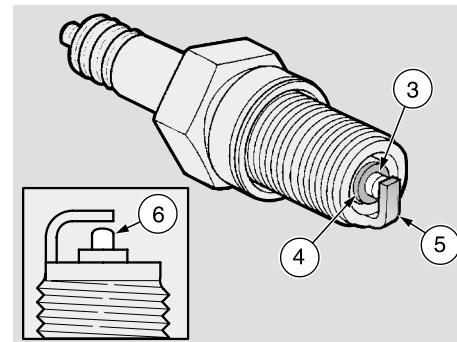
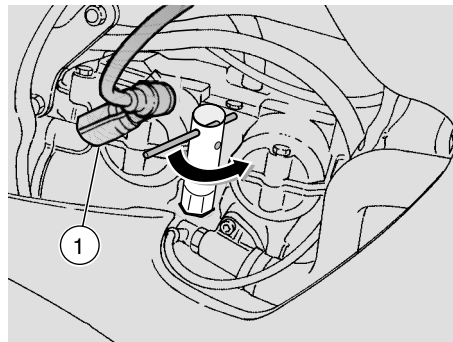
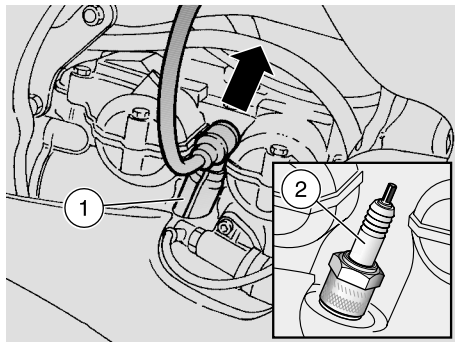
### ⚠ CAUTION

Handle the components with care.

- ◆ Rotate the rear-view mirror (4) and adjust the inclination correctly.

Repeat the same operations to adjust the other rear-view mirror.

- ◆ Make sure that there are no dirt or mud deposits.



## SPARK PLUG

### Carefully read p. 55 (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. 72 (REMOVAL OF THE FUEL TANK).

### For the removal, proceed as follows:

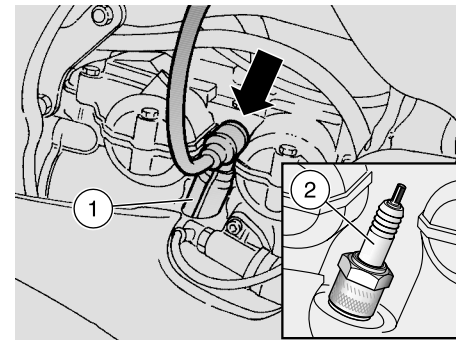
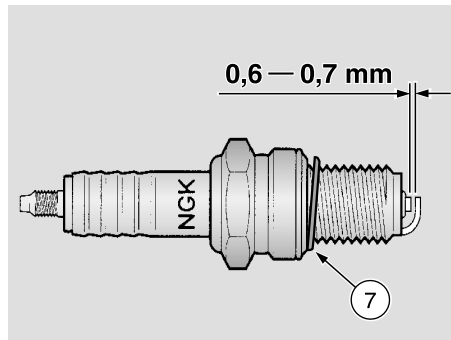
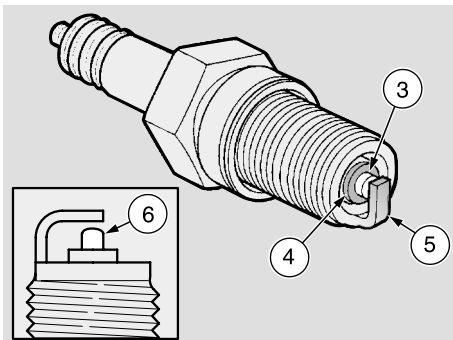
- ◆ Remove the cap (1) of the spark plug (2).
- ◆ Remove any trace of dirt from the spark plug base.
- ◆ Introduce the special spanner provided in the tool kit on the spark plug.
- ◆ Unscrew the spark plug and extract it from its seat, taking care to prevent dust or other substances from getting inside 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. 101 (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).**

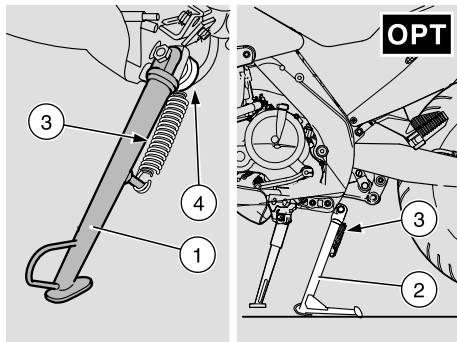
### ⚠ CAUTION

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. 72 (REMOVAL OF THE FUEL TANK).



## CHECKING THE STAND

Carefully read p. 55 (MAINTENANCE) and p. 91 (CHECKING THE SWITCHES).

The vehicle is provided with:

- side stand (1);
- centre stand (2) **OPT** (supplied as standard equipment in the countries where required).

The stand has two positions:

- normal or lifted;
- extended.

It is the rider who must provide for extending and lifting the stand.

The stand must rotate without hindrances.

The springs (3) provide for keeping the stand in the desired position (extended or lifted).

## SIDE STAND

- ◆ Position the vehicle on the centre stand, see p. 52 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ The springs (3) must not be damaged, worn, rusty or weakened.
- ◆ Make sure that the stand presents no slack in either position (extended and lifted).
- ◆ Lower the stand, making sure that the springs provide for extending it completely.
- ◆ Move the stand to let it up and release it halfway to make sure that the springs provide for lifting it completely.
- ◆ The side stand must rotate freely, if necessary grease the joint, see p. 104 (LUBRICANT CHART).

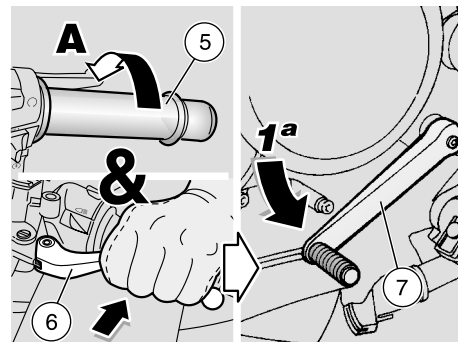
The side stand (1) is provided with a safety switch (4) that has the function to prevent or interrupt the operation of the engine with the gears on and the side stand (1) down.

**To check the proper functioning of the safety switch (4), proceed as follows:**

- ◆ Start the engine, see p. 44 (STARTING).
- ◆ With released throttle grip (5) (**Pos.A**) and engine idling, pull the clutch lever (6) completely.
- ◆ Engage the first gear, by pushing the gear lever (7) downwards.
- ◆ Lower the side stand (1), thus operating the safety switch (4).

**At this point:**

- the engine must stop;



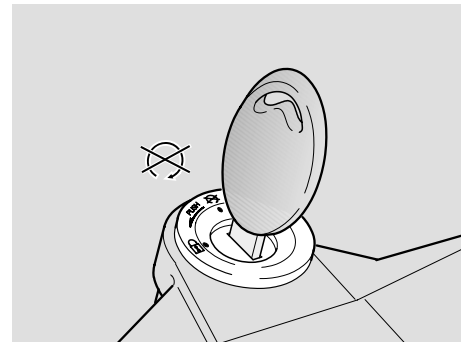
## CAUTION

If the engine does not stop, contact an **aprilia** Official Dealer.

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

- ◆ Position the vehicle on the side stand, see p. 52 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ The springs (3) must not be damaged, worn, rusty or weakened.
- ◆ Make sure that when lifted the stand presents no slacks.
- ◆ Move the stand and release it, making sure that the springs lift it completely.
- ◆ The side stand must rotate freely, if necessary grease the joint, see p. 104 (LUBRICANT CHART).





## BATTERY

Carefully read p. 55 (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.**

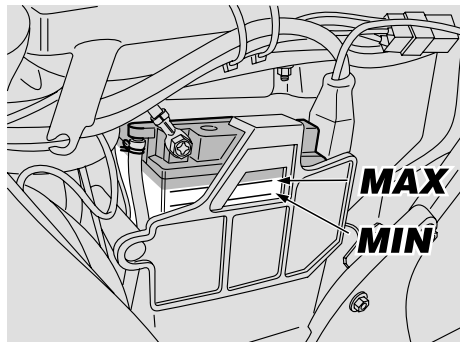
Do not incline the vehicle too much, in order to avoid dangerous leaks of the battery fluid.

### ⚠ 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

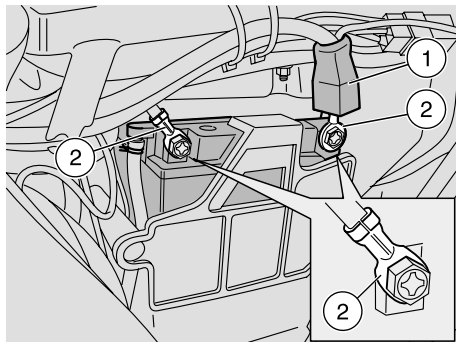
Carefully read p. 87 (BATTERY).

To check the electrolyte level, proceed as follows:

- ◆ Make sure that the ignition switch is in position "X".
- ◆ Remove the left cover, see p. 73 (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. 89 (REMOVING THE BATTERY).
- ◆ Remove the element plugs.



## CAUTION

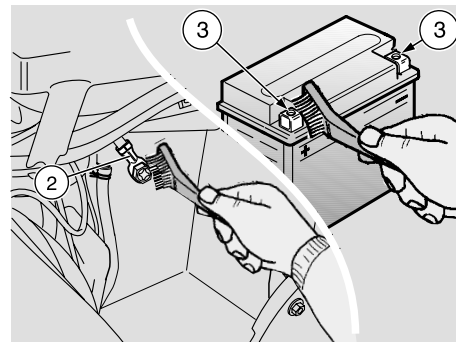
Do not exceed the "MAX" mark, since the electrolyte level increases during the recharge.

- ◆ Top up the fluid by adding only distilled water.
- ◆ Put back the left cover, see p. 73 (REMOVING THE RIGHT AND LEFT SIDES).

## CHECKING AND CLEANING THE TERMINALS

Carefully read p. 87 (BATTERY).

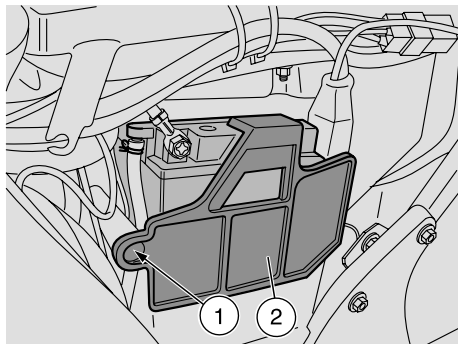
- ◆ Make sure that the ignition switch is in position "X".
- ◆ Remove the left cover, see p. 73 (REMOVING THE RIGHT AND LEFT SIDES).



- ◆ 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:

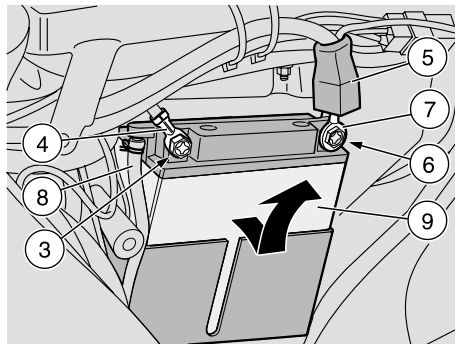
- ◆ Remove the battery, see p. 89 (REMOVING THE BATTERY).
- ◆ Brush the cable terminals (2) and the battery terminals (3) with a wire brush, in order to eliminate any trace of corrosion.
- ◆ Install the battery, see p. 90 (INSTALLING THE BATTERY).
- ◆ Put back the left cover, see p. 73 (REMOVING THE RIGHT AND LEFT SIDES).



## REMOVING THE BATTERY

Carefully read p. 87 (BATTERY).

- ◆ Make sure that the ignition switch is in position "X".
- ◆ Remove the left cover, see p. 73 (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

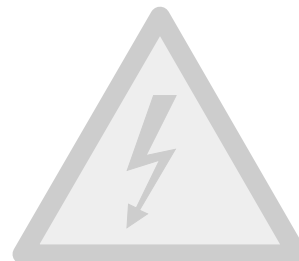
Do not force the electric cables.

- ◆ 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. 73 (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. 90 (INSTALLING THE BATTERY).

## RECHARGING THE BATTERY

Carefully read p. 87 (BATTERY).

- ◆ Remove the battery, see p. 89 (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.

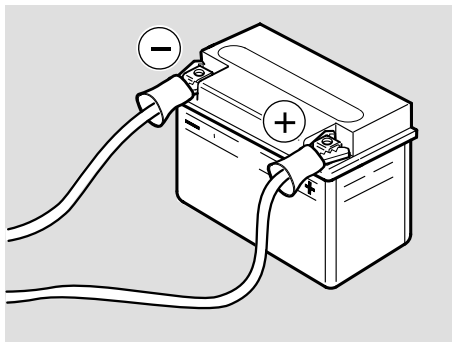
### ⚠ WARNING

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. 87 (BATTERY).

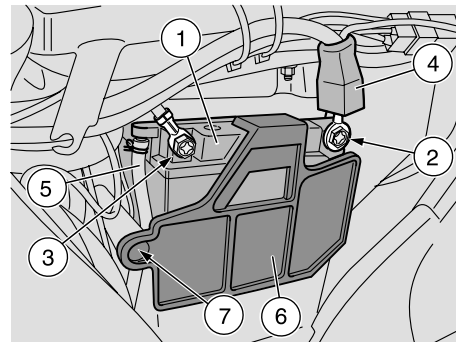
- ◆ Make sure that the ignition switch is in position "X".
- ◆ Remove the left cover, see p. 73 (REMOVING THE RIGHT AND LEFT SIDES).

**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. 73 (REMOVING THE RIGHT AND LEFT SIDES).



## LONG INACTIVITY OF THE BATTERY

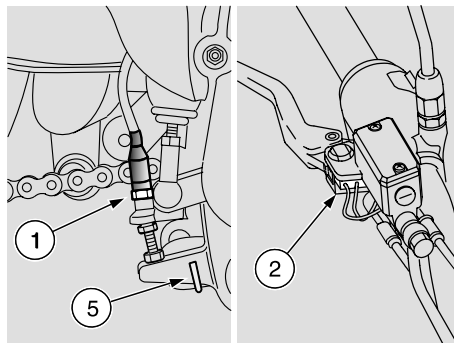
If the vehicle remains unused for more than fifteen days, it is necessary to recharge the battery, in order to prevent its sulphation, see p. 90 (RECHARGING THE BATTERY).

- ◆ Remove the battery, see p. 89 (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 90 (RECHARGING THE BATTERY).

If the battery remains on the vehicle, disconnect the cables from the terminals.

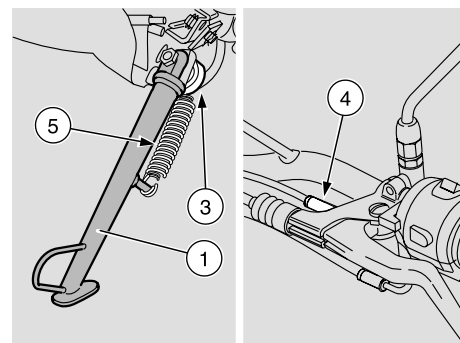


## CHECKING THE SWITCHES

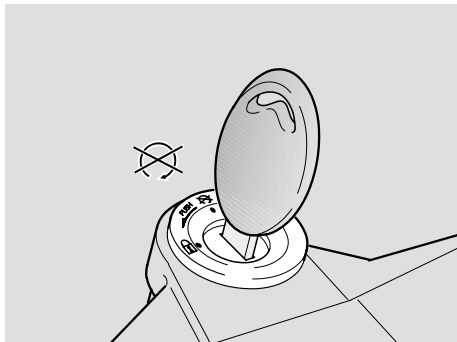
Carefully read p. 55 (MAINTENANCE).

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. 55 (MAINTENANCE).

### ⚠ CAUTION

**Do not repair faulty fuses.**

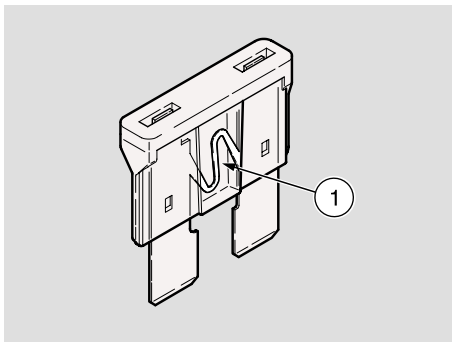
**Never use fuses different from the recommended ones.**

**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.

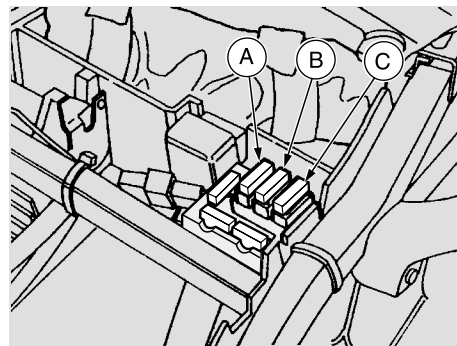
If an electric component does not work or works irregularly, or if the vehicle fails to start, it is necessary to check the fuses.



**For the check, proceed as follows:**

- ◆ Turn the ignition switch to position “”, to avoid any accidental short circuit.
- ◆ Remove the rider saddle, see p. 21 (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.

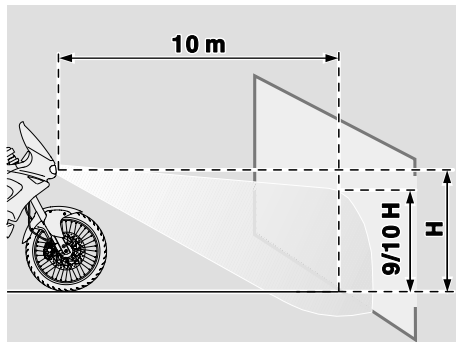
**NOTE** If you use one of the spare fuses, put a new fuse in the proper seat.



## 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.



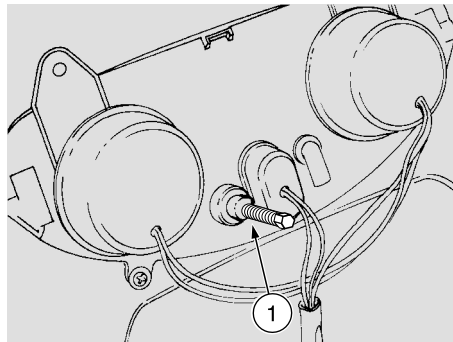
## ADJUSTING THE VERTICAL HEADLIGHT BEAM

**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. 52 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Working on the lower side of the front part of the fairing, act on the appropriate screw (1) with the spanner (8 mm) provided in the tool kit.

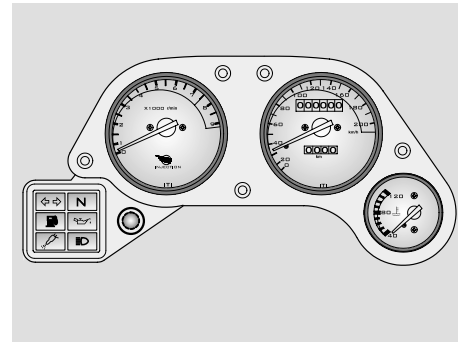
BY ROTATING IT CLOCKWISE, you set the beam upwards.

BY ROTATING IT ANTICLOCKWISE, you set the beam downwards.

After the adjustment:

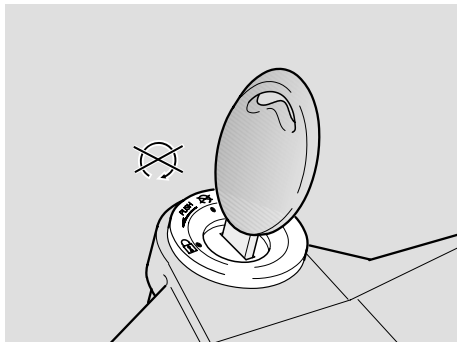
### WARNING

**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. 55 (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.

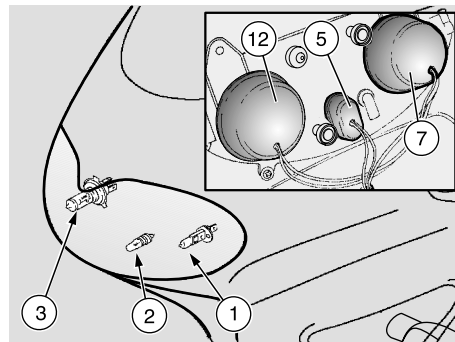
Do not leave fingerprints on the bulb, since these may cause its overheating and consequent breakage.



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. 92 (CHANGING THE FUSES).



## CHANGING THE HEADLIGHT BULBS

Carefully read p. 94 (BULBS).

The headlight contains:

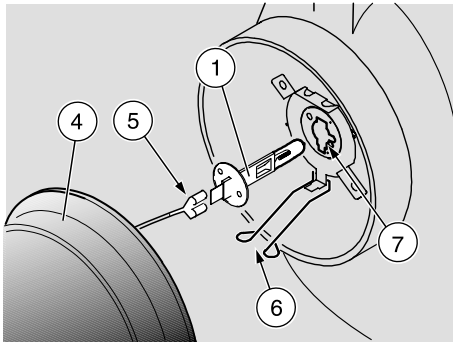
- one high beam bulb (1) (left side);
- one parking light bulb (2) (lower).
- one low beam bulb/high beam (3) (right side).

**To change, proceed as follows:**

- ◆ Position the vehicle on the stand, see p. 52 (POSITIONING THE VEHICLE ON THE STAND).

**NOTE** Proceed on the side of the bulb to be changed.

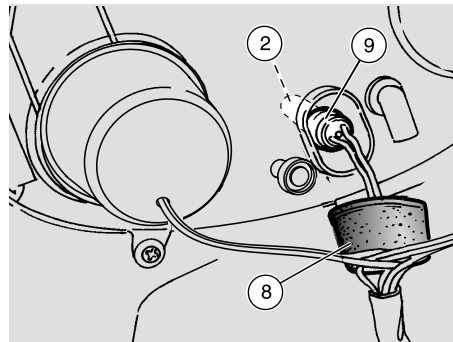




### HIGH BEAM BULBS

- ◆ 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.



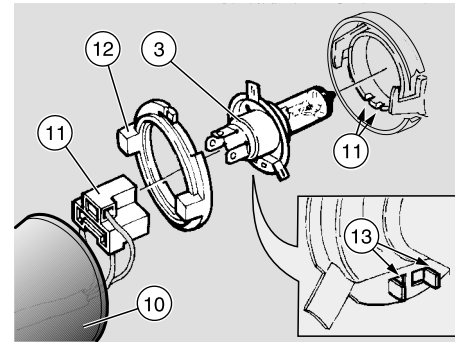
### PARKING LIGHT BULB

- ◆ 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. 94 (BULBS).

- ◆ Position the vehicle on the stand, see p. 52 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the two screws (1).
- ◆ Remove the protection screen (2).

### ⚠ CAUTION

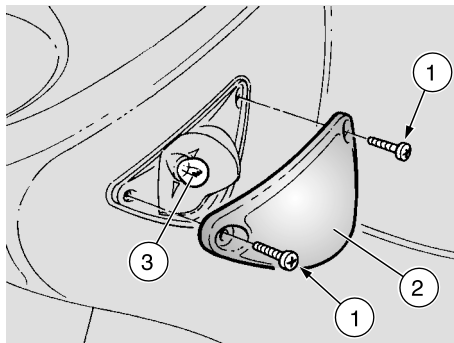
Upon reassembly, correctly position the protection screen in its seat. Tighten the screw (1) moderately and carefully, to avoid damaging the protection screen.

- ◆ 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. 94 (BULBS).

- ◆ Position the vehicle on the stand, see p. 52 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the screw (4).

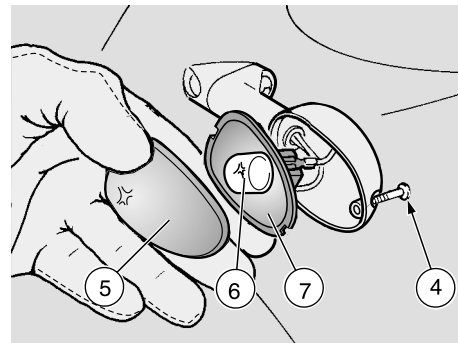
### ⚠ CAUTION

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.

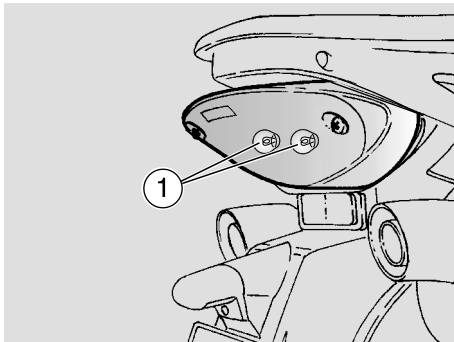
### ⚠ CAUTION

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

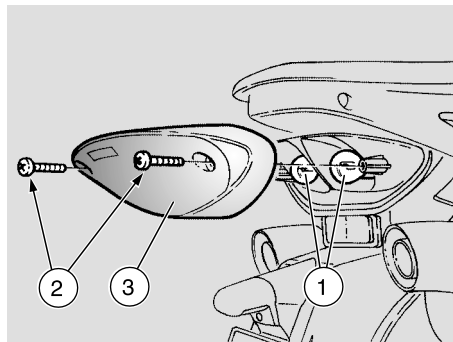
Carefully read p. 94 (BULBS).

**NOTE** The rear light houses two parking light/stoplight 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. 91 (CHECKING THE SWITCHES).

- ◆ Position the vehicle on the stand, see p. 52 (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.

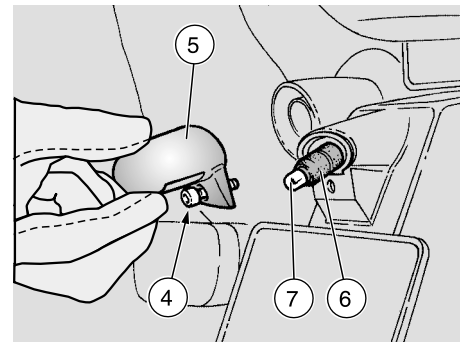
Tighten the screw (2) carefully, without exerting too much pressure, in order to avoid damaging the protection screen.

- ◆ 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. 94 (BULBS).

**To change, proceed as follows:**

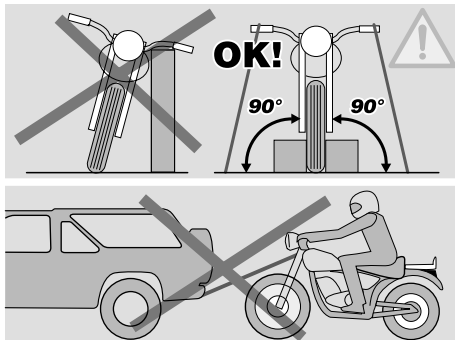
- ◆ Position the vehicle on the stand, see p. 52 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the screw (4), taking the nut.
- ◆ Remove the light unit (5).

## ⚠ 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

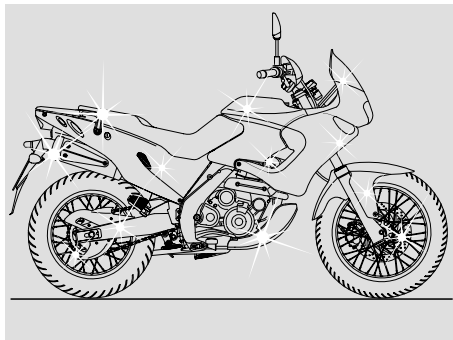


**NOTE** During transport, the vehicle must be kept in vertical position, it must be firmly anchored and the 1st gear must be engaged, in order to avoid any leak of fuel, oil, coolant.

### ⚠ CAUTION

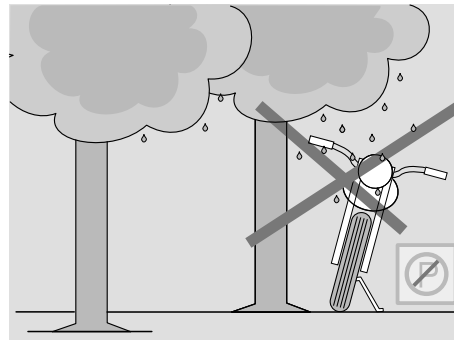
**In case of failure, do not tow the vehicle, but ask for assistance.**

## 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 a 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.



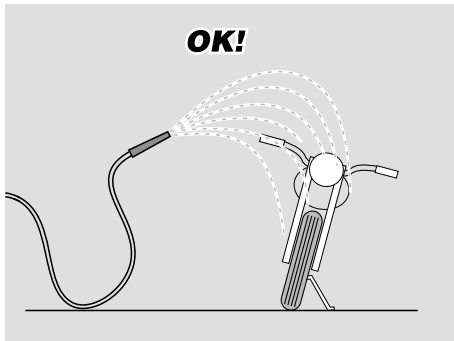
### ⚠ WARNING

**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. 43 (PRELIMINARY CHECKING OPERATIONS).**

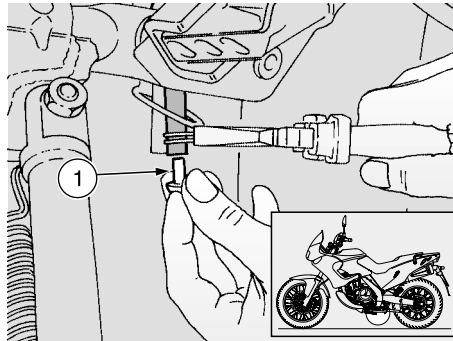


To remove dirt and mud from the painted surfaces use a low- pressure water jet, carefully wet the dirty parts, remove mud and filth with a soft car sponge impregnated with a lot of water and shampoo (2 – 4% parts of shampoo in water). Then rinse with plenty of water and dry with chamois leather.

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. 52 (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.**



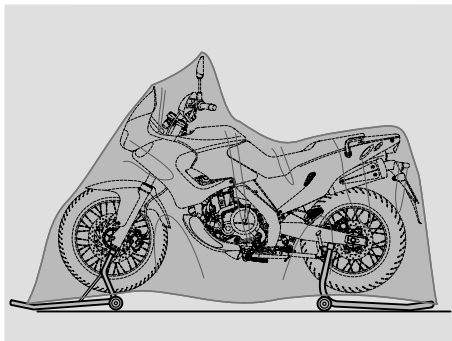
### LONG PERIODS OF INACTIVITY

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. 89 (REMOVING THE BATTERY) and p. 91 (LONG INACTIVITY OF THE BATTERY).
- ◆ Wash and dry the vehicle, see p. 98 (CLEANING).
- ◆ Polish the painted surfaces with wax.
- ◆ Inflate the tyres, see p. 36 (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 69 (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. 98 (CLEANING).
- ◆ Check the charge of the battery, see p. 90 (RECHARGING THE BATTERY) and install it, see p. 90 (INSTALLING THE BATTERY).
- ◆ Refill the fuel tank, see p. 27 (FUEL).
- ◆ Carry out the preliminary checking operations, see p. 43 (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 .....	ROTAX 655
	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
	Lubrication system .....	dry pan with separate oil tank
TRANSMISSION	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)
	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
SPARK PLUGS	Standard .....	NGK R DR8EB
	Spark plug gap.....	0.6 – 0.7 mm
	Resistance .....	5 kΩ
ELECTRIC SYSTEM	Battery.....	12 V – 12 Ah
	Fuses .....	7.5 A – 15 A – 20 A
	Generator (with permanent magnet) .....	12 V – 270 W
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
WARNING LIGHTS	Coolant temperature indicator.....	12 V – 2 W
	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.

**Brake fluid (recommended):**  F.F., DOT 5 (compatible with DOT 4) or  Agip BRAKE 5.1, DOT 5 (compatible with DOT 4).

### WARNING

Use only antifreeze and anticorrosive without nitrite, ensuring protection at -35 °C at least.

**Engine coolant (recommended):**  ECOBLU -40 °C or  Agip COOL.

## NOTE

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**aprilia**

**ASK FOR GENUINE SPARE PARTS ONLY**

# Importers

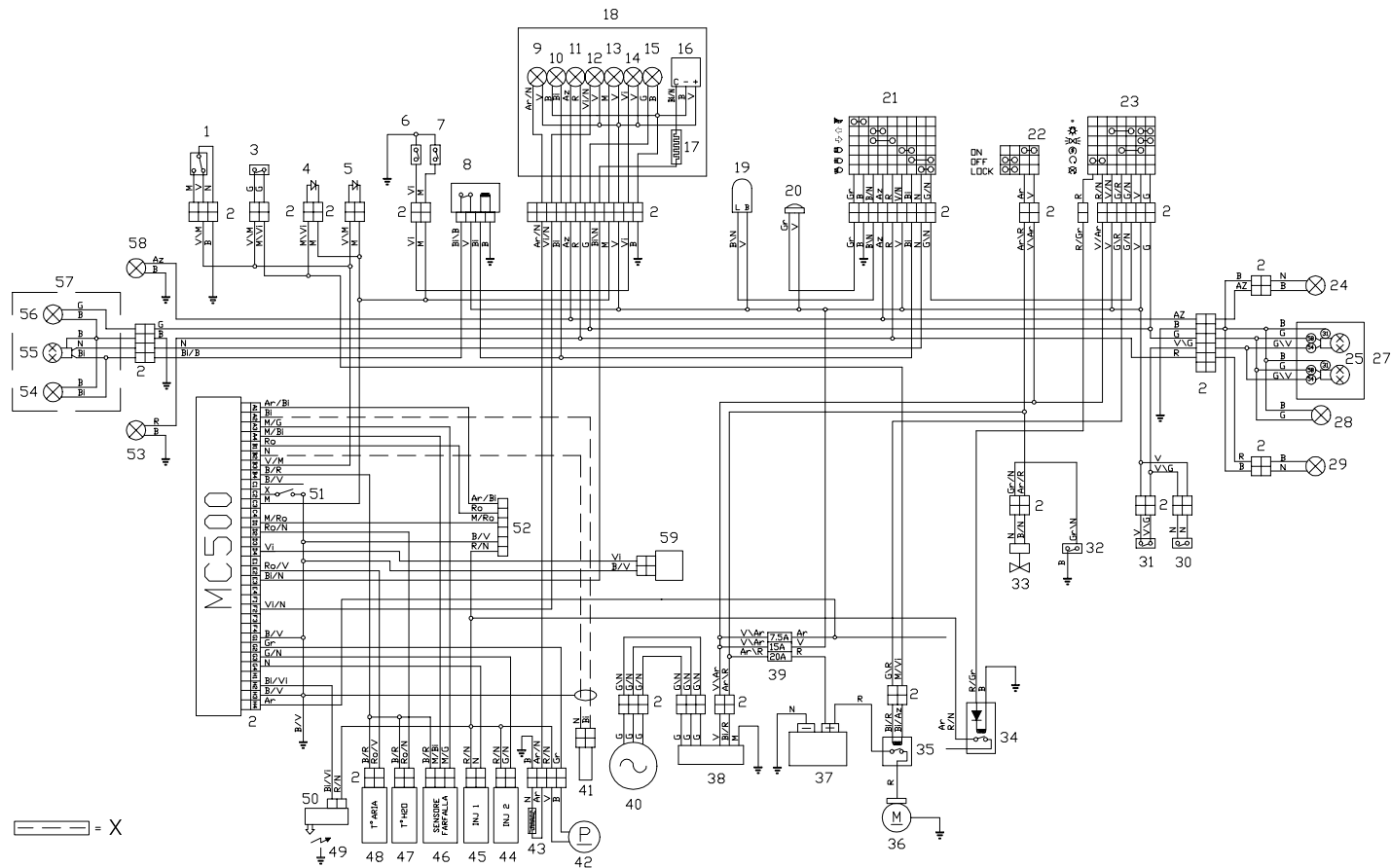
<b>I</b>	<b>APRILIA s.p.a.</b>	via G. Galilei, 1 - 30033 Noale (VE) Italy Tel. +39(0)41 5829111 - Fax +39(0)41 441054 - Servizio Clienti <b>aprilia</b> +39(0)41 5786269
<b>F</b>	<b>APRILIA WORLD SERVICE B.V.</b>	Z.A. Central Parc - 255 BLD Robert Ballanger B.P. 77- 93421 Villepinte (F) - Tel. (0) 149634747 - Fax (0) 149638750
<b>D</b>	<b>MOTORRAD GmbH</b>	Am Seestern 3 D-40547 Düsseldorf (D) Tel. (211) 59018-00 - Fax (211) 5901819
<b>E</b>	<b>APRILIA WORLD SERVICE B.V. ESPAÑA</b>	Calle Alcorcon 19 - 28850 Torrejon de Ardoz - Madrid (E) Tel. (91) 6778083 - Fax (91) 6778577
<b>NL</b>	<b>APRILIA NEDERLAND</b>	Nikkelstraat 1 - 4823 AE Breda (NL) Tel. (076) 5431640 - Fax (076) 5431649
<b>UK</b>	<b>APRILIA MOTO U.K. LTD.</b>	Dunragit - Stranraer - Wigtownshire DG9 8PN - Scotland (UK) Tel. (01776) 888670 - Fax (01581) 400661
<b>USA</b>	<b>APRILIA USA Inc.</b>	110 Londonderry Court, Suite 130 - Woodstock, GA 30188 (USA) Tel. 770 592 2261 - Fax 770 592 4878
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<b>J</b>	<b>株式会社 ボスコ・モト</b>	〒 562-0012 大阪府箕面市白島 2 丁目 22-25 電話 : (0727)25-3311 - FAX : (0727)25-3322
<b>SGP</b>	<b>IDEAL MOTOR SPORT PTE. LTD.</b>	20 Mactaggart Road, #01-01 Khong Guan Industrial Building 368079 Singapore (SGP) Tel. 2820082 - Fax 2821012

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<b>TR</b> METRO MOTORLU ARACLAR TICARET A.S.	Mihrabat Caddesi Akbaysokak Yetimoglu Is Merkezi - 81640 - Kavacak-Istanbul (TR) - Tel. (0216) 4251565 - Fax (0216) 3312606
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<b>IRL</b> K.D.I. KAWASAKI DISTRIBUTOR IRL. LTD.	17 Wood Street - Dublin 8 (IRL) Tel. (1) 4756046 Fax. (1) 4756461
<b>N</b> MC TEMA A.S.	Kjørbekkdalen 6,3735 Skien, Norway (N) Tel. 35506780 Fax. 35506781

## WIRING DIAGRAM - Pegaso 650 I.E.



## WIRING DIAGRAM KEY - Pegaso 650 I.E.

- |                                       |  |
|---------------------------------------|--|
| 1) Side stand switch                  | 35) Start relay  |
| 2) Multiple connectors                | 36) Starter  |
| 3) Clutch control lever switch        | 37) Battery  |
| 4) Diode 1                            | 38) Voltage regulator  |
| 5) Diode 2                            | 39) Fuses  |
| 6) Engine oil pressure switch         | 40) Generator  |
| 7) Neutral gear switch                | 41) Pick up  |
| 8) Light relay                        | 42) Fuel pump  |
| 9) Low fuel warning light             | 43) Low fuel sensor  |
| 10) High beam warning light           | 44) Injector 2   |
| 11) Direction indicator warning light | 45) Injector 1   |
| 12) Diagnostic warning light          | 46) Throttle valve position sensor                               |
| 13) Neutral warning light             | 47) Coolant temperature thermistor                               |
| 14) Engine oil pressure Warning light | 48) Air thermistor   |
| 15) Dashboard bulbs                   | 49) Spark plug   |
| 16) Coolant temperature indicator     | 50) Coil   |
| 17) Dashboard resistance              | 51) Octane number selection (not provided as standard equipment) |
| 18) Dashboard                         | 52) Diagnostic connection  |
| 19) Blinking                          | 53) Front right direction indicator                              |
| 20) Horn                              | 54) High beam bulbs  |
| 21) Left dimmer switch                | 55) Low beam bulb/high beam                                      |
| 22) Ignition switch                   | 56) Front parking light bulb                                     |
| 23) Right dimmer switch               | 57) Headlight  |
| 24) Rear left direction indicator     | 58) Front left direction indicator                               |
| 25) Parking light bulb/rear stoplight | 59) Fall sensor  |
| 26) Electronic unit                   | X) Shielded cables   |
| 27) Rear light                        |  |
| 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                |  |
| 34) Injection relay                   |  |

## 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

## NOTE

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**aprilia**

**ASK FOR GENUINE SPARE PARTS ONLY**



## NOTE

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**ASK FOR GENUINE SPARE PARTS ONLY**

**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.