

## MAINTENANCE

### ⚠ WARNING

**Risk of fire.**

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

Before beginning any service operations or inspection of the vehicle, switch off the engine and remove the key, wait until the engine and the exhaust system have cooled down and, if possible, lift the vehicles with the proper equipment onto firm and flat ground.

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. 49 (PRELIMINARY CHECKING OPERATIONS).

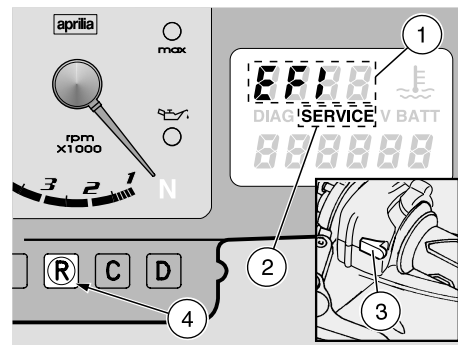
**NOTE** This vehicle is set so that any anomaly can be detected in real time and stored by the electronic unit.

Whenever the ignition switch is brought to position "O", the writing "E F I" (1) appears on the right side of the multifunction display for approximately three seconds.

### ⚠ CAUTION

If the writing "E F I" (1) is displayed during the normal operation of the engine, this means that the electronic unit has detected an anomaly.

In many cases, the engine keeps running with reduced performance levels; immediately contact an **aprilia** Official Dealer.



### ⚠ CAUTION

After the first 1000 km (625 mi) and successively every 7500 km (4687 mi), the word "SERVICE" (2) appears on the right display.

In this case contact an **aprilia** Official Dealer, who will carry out the operations indicated in the regular service intervals chart, see p. 60 (REGULAR SERVICE INTERVALS CHART). To make the writing "SERVICE" disappear, press the "LAP" push button (3) and then the push button **R** (4) and keep them pressed for about five seconds.

## 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** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

(\*) = In case of use on racetracks, change every 3750 km (2343 mi).

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

Component	After run- ning-in [1000 km (625 mi)]	Every 7500 km (4687 mi) or 12 months	Every 15000 km (9375 mi) or 24 months
Spark plugs (*)		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			
Clutch fluid		①	
Brake fluid		①	
Coolant			①
Engine oil	③	③ (*)	
Tyres	①	①	
Tyre pressure (**)	④	④	
Engine idling rpm	④	④	
Engine oil pressure warning light LED	at every start: ①		
Drive chain tension and lubrication	every 1000 km (625 mi): ①		
Brake pad wear	①	before every trip and every 2000 km (1250 mi): 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** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

(\*) = In case of use on race tracks, check every 3750 km (2343 mi).

(\*\*) = With "R" fork **RSV R** (**RSV OPT**), change every 10000 km (6250 mi).

(\*\*\*) = **Only in case of:**

- **intense use on racetracks;**
- **participation in competitions.**

Component	After running- in [1000 km (625 mi)]	Every 7500 km (4687 mi) or 12 months	Every 15000 km (9375 mi) or 24 months
Rear shock absorber			①
Transmission cables and controls	①	①	
Rear suspension linkage bearings			①
Steering bearings and steering clearance	①	①	
Wheel bearings		①	
Brake discs	①	①	
General running of the vehicle			
Adjusting the valve clearance	④		④
Braking systems	①	①	
Cooling system		①	
Throttle body pin greasing	①	①	
Clutch fluid	every 2 years: ③		
Brake fluid			
Coolant			
Fork oil (**)	after the first 7500 km (4687 mi) and successively every 22500 km (14000 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			
Cylinder synchronization	①	①	
Suspensions and attitude	①		①
Final transmission (chain, crown and pinion)		①	
Fuel pipes		①	every 4 years: ③
Clutch wear (*)		①	
<b>Pistons (***)</b>	<b>every 5000 km (3125 mi): ①</b>		

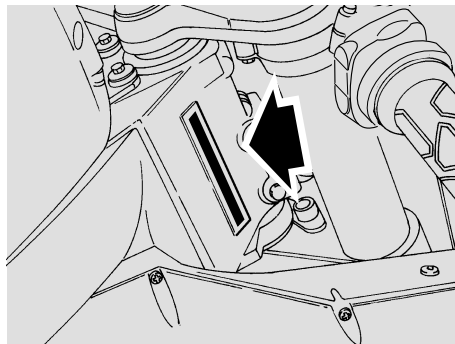


## IDENTIFICATION DATA

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.

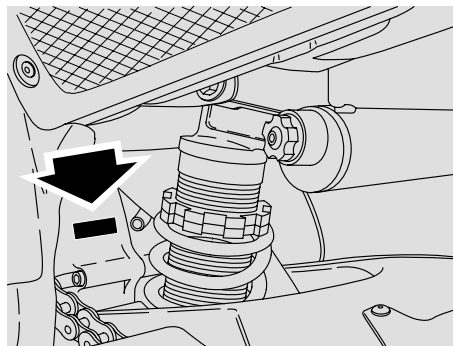
**NOTE** Do not alter the identification numbers if you do not want to incur severe penal and administrative sanctions. In particular, the alteration of the frame number results in the immediate invalidity of the guarantee.



## 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. 43 (ENGINE OIL) and p. 59 (MAINTENANCE).

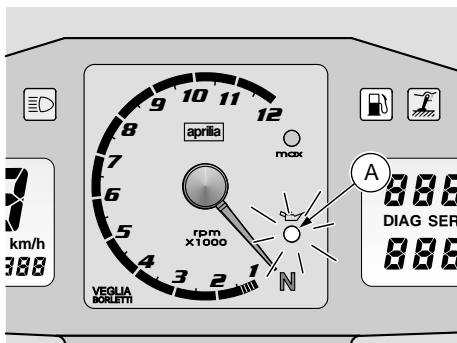
**NOTE** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Periodically check the engine oil level, change the oil after the first 1000 km (625 mi) and successively every 7500 km (4687 mi), see p. 64 (CHANGING THE ENGINE OIL AND THE OIL FILTER).

## ⚠ CAUTION

In case of use on racetracks, change the engine oil every 3750 km (2343 mi).

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



For the check, proceed as follows:

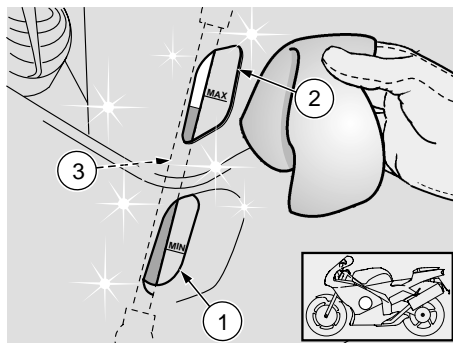
### ⚠ CAUTION

The engine oil level must be checked with warm engine.

If the check is carried out with cold engine, the oil level may temporarily lower below the “MIN” mark.

This is not a problem, provided that the engine oil pressure warning light LED “” (A) does not come on, see p. 18 (INSTRUMENTS AND INDICATORS TABLE).

**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. 57 (STOPPING).
- ◆ Keep the vehicle in vertical position, with the two wheels resting on the ground.
- ◆ Check the oil level on the transparent pipe (3) through the apposite slots (1) (2) on the left part of the fairing.

**MAX** = maximum level

**MIN** = minimum level.

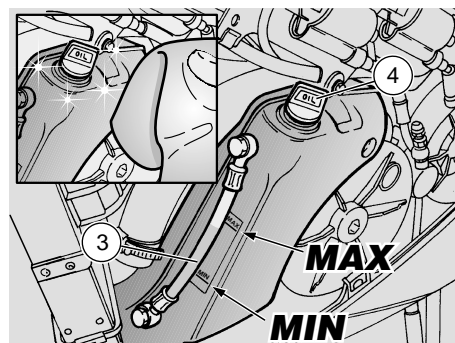
The difference between “MAX” and “MIN” amounts to approximately 500 cm<sup>3</sup>.

- ◆ 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:**



- ◆ Remove the left fairing, see p. 77 (REMOVING THE SIDE FAIRINGS).
- ◆ Unscrew and remove the filling cap (4).

### ⚠ 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 15W – 50 oil, see p. 113 (LUBRICANT CHART).

- ◆ Top up the tank and restore the correct level, see p. 113 (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. 43 (ENGINE OIL) and p. 59 (MAINTENANCE).

**NOTE** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Periodically check the engine oil level, see p. 62 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP) change the oil after the first 1000 km (625 mi) and successively every 7500 km (4687 mi).

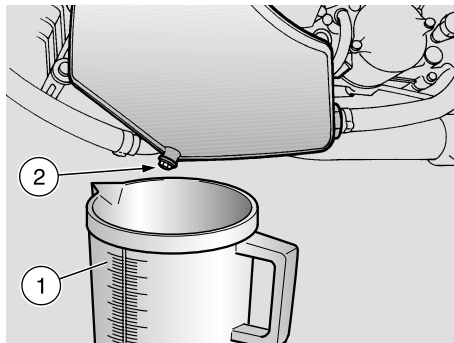
### ⚠ CAUTION

In case of use on racetracks, change the engine oil every 3750 km (2343 mi).

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

To change, proceed as follows:

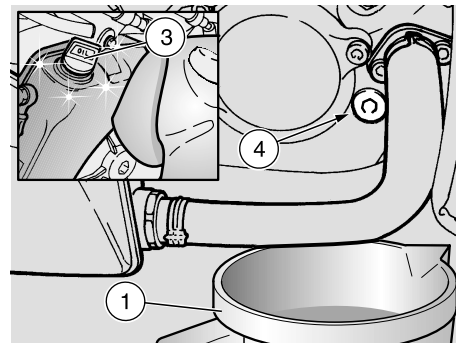
**NOTE** The oil flows out completely and without problems when it is warm and therefore more fluid: to achieve this condition, the engine should run for approximately twenty minutes.



### ⚠ CAUTION

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.

- ◆ Remove the lower fairing, see p. 77 (REMOVING THE LOWER FAIRING).
- ◆ Position a container (1) with more than 4000 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 filling cap (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.



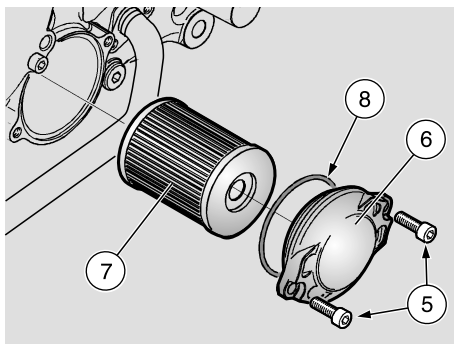
Drain plug (2) driving torque: 15 Nm (1.5 kgm).

- ◆ 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 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).

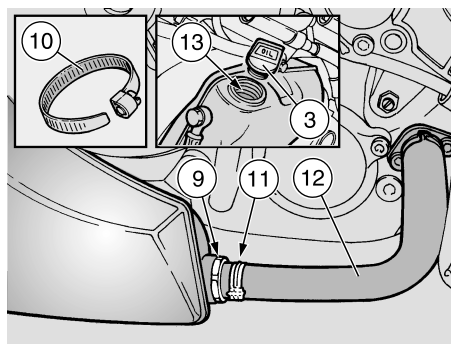
**Driving torque of the drain plug (4) positioned on the engine: 12 Nm (1.2 kgm).**

## CHANGING THE ENGINE OIL FILTER

**NOTE** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

**Change the engine oil filter after the first 1000 km (625 mi) and successively every 7500 km (4687 mi) (or every time you change the oil).**

- ◆ 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

**NOTE** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

**Clean the engine oil filter (9) on the tank after the first 1000 km (625 mi) and successively every 15000 km (9375 mi) (or every two engine oil changes).**

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

- ◆ Loosen the clamp (11) and disconnect the pipe (12).
- ◆ Unscrew and remove the engine oil filter (9) positioned on the tank 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: 30 Nm (3 kgm).**

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

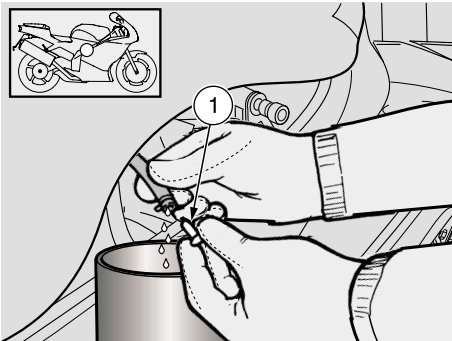
## ⚠ CAUTION

**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 15W – 50 oil, see p. 113 (LUBRICANT CHART).

- ◆ Pour about 3500 cm<sup>3</sup> of engine oil through the filling opening (13), see p. 113 (LUBRICANT CHART).
- ◆ Tighten the filling cap (3).
- ◆ Start the engine, see p. 50 (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. 62 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP).



## AIR CLEANER

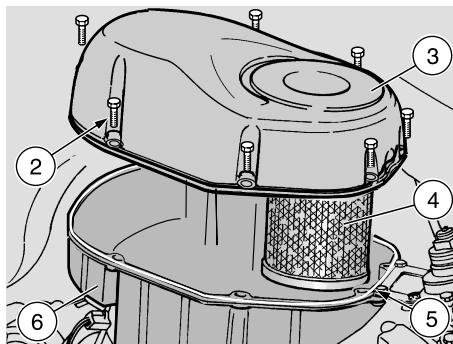
**NOTE** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Check the air cleaner every 7500 km (4687 mi) or 12 months, change it every 15000 km (9375 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.

- ◆ Every 7500 km (4687 mi), remove the plug (1), empty its content into a container and deliver it to a salvage centre.

## REMOVAL

- ◆ Lift the fuel tank, see p. 76 (LIFTING THE FUEL TANK)
- ◆ Unscrew and remove the seven screws (2) that fasten the filter case cover (3).
- ◆ Remove the filter case cover (3).
- ◆ Extract the air cleaner (4).
- ◆ Check the conditions of the gasket (5) and change it if it is damaged.

### ⚠ CAUTION

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

Upon reassembly, before positioning the filter case cover (3), make sure that you have not left the cloth or other objects inside the filter case (6).

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 (4).

Do not use screwdrivers or alike.

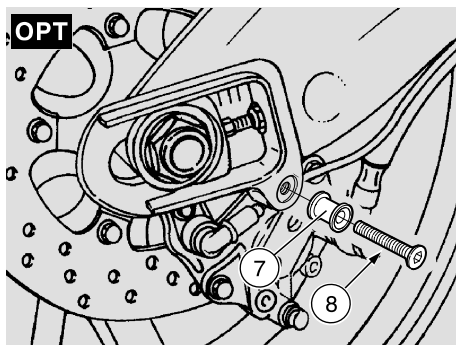
- ◆ Seize the air cleaner (4) vertically and strike it more than once on a clean surface.
- ◆ If necessary, clean the air cleaner (4) with a compressed air jet (directing it from the inside towards the outside of the filter).

### ⚠ 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 (4) with a clean cloth.





## CHANGING

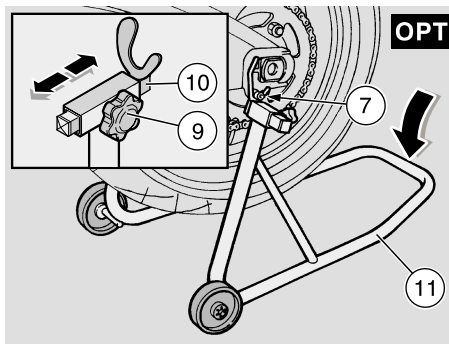
### ⚠ CAUTION

Do not use filters that have already been used.

- ◆ Replace the air cleaner (4) with a new one of the same type.

## ASSEMBLING THE PINS FOR THE REAR SUPPORT STAND OPT

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ ★ Position the pin (7) on the appropriate seat on the rear fork.
- ◆ ★ Screw and tighten the screw (8) in the appropriate threaded hole in the rear fork.

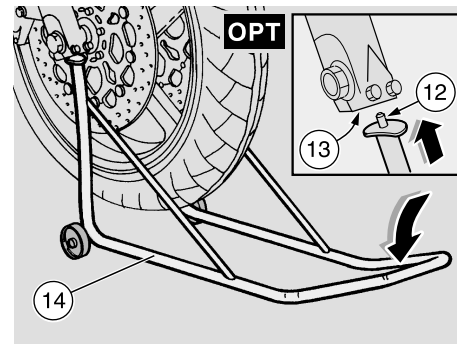


## POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND OPT

- ◆ Assemble the two pins (7), see p. 67 (ASSEMBLING THE PINS FOR THE REAR SUPPORT STAND m).

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

- ◆ ★ Loosen the knob (9).
- ◆ ★ Move the fork support (10), positioning it so that the width corresponds to the distance between the two pins (7) on the rear fork.
- ◆ ★ Tighten the knob (9).
- ◆ At the same time introduce the two fork-shaped seats (10) of the stand (11) under the two pins (7) provided on the vehicle.
- ◆ Rest one foot on the rear part of the stand (11).
- ◆ Push the stand (11) downwards until it reaches the end of its stroke.



### ⚠ CAUTION

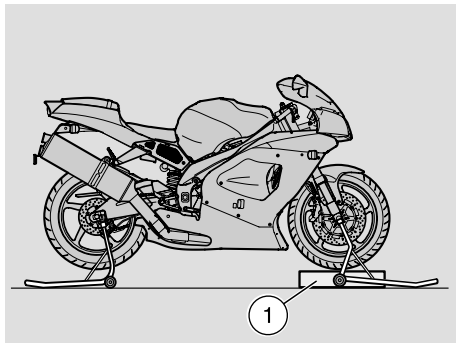
Make sure that the vehicle is stable.

## POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND OPT

- ◆ Position the vehicle on the appropriate rear support stand, see p. 67 (ASSEMBLING THE PINS FOR THE REAR SUPPORT STAND m).
- ◆ Insert the two ends of the stand (12) in the two holes (13) positioned on the lower ends of the front fork.
- ◆ Rest one foot on the front part of the stand (14).
- ◆ Push the stand (14) downwards until it reaches the end of its stroke.

### ⚠ CAUTION

Make sure that the vehicle is stable.



## 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.

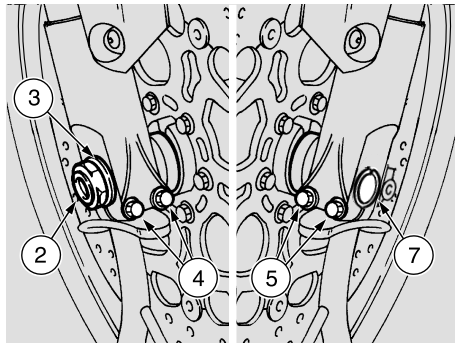
Carefully read p. 59 (MAINTENANCE).

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



## DISASSEMBLY

- ◆ Remove the front brake calipers, see p. 70 (FRONT BRAKE CALIPERS).
- ◆ 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.

- ◆ Have someone keep the handlebar steady in running position, so that the steering is locked.

Wheel nut (2) driving torque: 80 Nm (8 kgm).

- ◆ Loosen and remove the wheel nut (2), taking the washer (3).

Wheel pin clamp screw driving torque: 22 Nm (2.2 kgm).

- ◆ Partially unscrew the two wheel pin clamp screws (4) (right side).

- ◆ Partially unscrew the two wheel pin clamp screws (5) (left side).

**NOTE** Check the position of the spacer ring (6) (right side), in order to be able to reinstall it correctly.

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

- ◆ Push the wheel pin (7), by carefully acting on the threaded end and using a rubber hammer if necessary.
- ◆ Support the front wheel and manually withdraw the wheel pin (7).
- ◆ Remove the wheel by withdrawing it from the front.

### ⚠ CAUTION

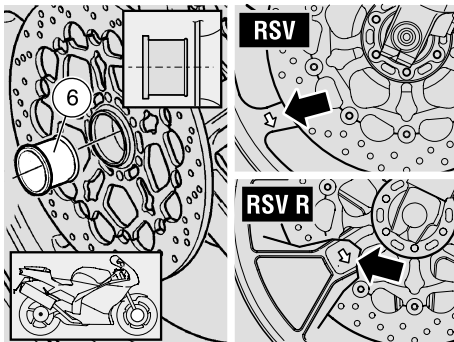
The spacer ring (6) remains in its seat on the wheel; if it comes off, reposition it correctly (see REASSEMBLY).

## REASSEMBLY

- ◆ Spread a film of lubricating grease on the whole length of the wheel pin (7), see p. 113 (LUBRICANT CHART).

### ⚠ CAUTION

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



**NOTE** Eseguire l'operazione che segue, solo se il distanziale (6) è fuoriuscito dalla sede.

- ◆ Insert the spacer ring (6) with its longer diameter towards the outside of the vehicle.

### ⚠ CAUTION

The arrow on the wheel side indicates the rotation direction.

Upon reassembly, make sure that the wheel is positioned correctly: the arrow must be visible on the left side of the vehicle.

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

### ⚠ 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.

- ◆ Introduce the wheel pin (7) completely from the left side.

**NOTE** Make sure that the wheel pin (7) is completely inserted.

- ◆ Position the washer (3) and tighten the wheel nut (2) manually.

**NOTE** In this phase, for the temporary tightening of the two wheel pin clamp screws (5) (left side), the driving torque value need not be respected.

- ◆ Screw the two wheel pin clamp screws (5) (left side) and tighten them as much as necessary to lock the rotation of the wheel pin (7).
- ◆ Tighten the wheel nut (2) completely.

**Wheel nut (2) driving torque: 80 Nm (8 kgm).**

- ◆ Tighten the two wheel pin clamp screws (4) (right side).

**Wheel pin clamp screw driving torque: 22 Nm (2.2 kgm).**

- ◆ Loosen the two wheel pin clamp screws (5) (left side).
- ◆ Put back the front brake calipers, see p. 70 (FRONT BRAKE CALIPERS).
- ◆ 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 side stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Tighten the two screws (5) of the wheel pin clamp (left side).

**Wheel pin clamp screw driving torque (5): 22 Nm (2.2 kgm)**

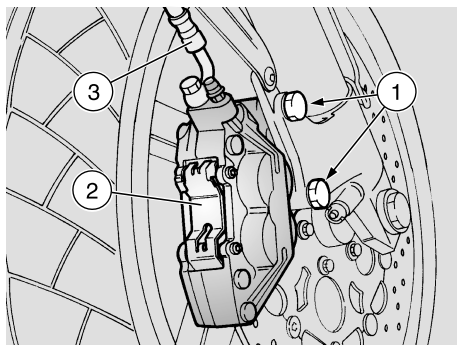
- ◆ Make sure that the following components are not dirty:
  - tyre;
  - wheel;
  - brake discs.

### ⚠ WARNING

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

**Check the wheel centering.**

**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.**



## FRONT BRAKE CALIPERS

Carefully read p. 59 (MAINTENANCE).

### ⚠ WARNING

A dirty disc soils the pads, with consequent reduction of the braking efficiency. Dirty pads must be replaced, while dirty discs must be cleaned with a high-quality degreaser.

### ⚠ CAUTION

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

**NOTE** To remove the front brake calipers, it is necessary to use the appropriate front **OPT** and rear support stands **OPT**.

## DISASSEMBLY

- ◆ Position the vehicle on the appropriate front support stand, see p. 67 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND m).

### ⚠ CAUTION

Make sure that the vehicle is stable.

- ◆ Manually rotate the wheel, so that the space between two spokes of the rim is in correspondence with the brake caliper.
- ◆ Have someone keep the handlebar steady in running position, so that the steering is locked.

**Brake caliper screw driving torque (1):**  
50 Nm (5 kgm).

- ◆ ★ Unscrew and remove the two brake caliper screws (1).

### ⚠ CAUTION

Never pull the brake lever after removing the caliper, otherwise the 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.

- ◆ ★ Withdraw the brake caliper (2) from the disc, leaving it attached to the pipe (3).

**Work on the second brake caliper:**

- ◆ Repeat the operations marked with ★.

## REASSEMBLY

### ⚠ CAUTION

Proceed with care, in order not to damage the brake pads.

- ◆ ✕ Insert the brake caliper (2) on the disc and position it so that its fastening holes and the holes on the support are aligned.

### ⚠ WARNING

Upon reassembly of the brake caliper, replace the caliper fastening screws (1) with two new screws of the same type.

- ◆ ✕ Screw and tighten the two screws (1) that fasten the brake caliper.

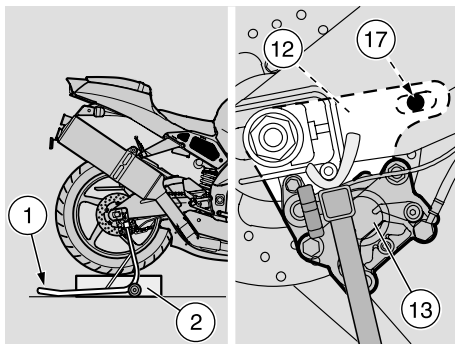
**Brake caliper screw driving torque:**  
50 Nm (5 kgm).

**Work on the second brake caliper:**

- ◆ Repeat the operations marked with ✕.
- ◆ Remove the front support stand **OPT**, see p. 67 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND m).

### ⚠ CAUTION

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



## REAR WHEEL

### ⚠ CAUTION

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

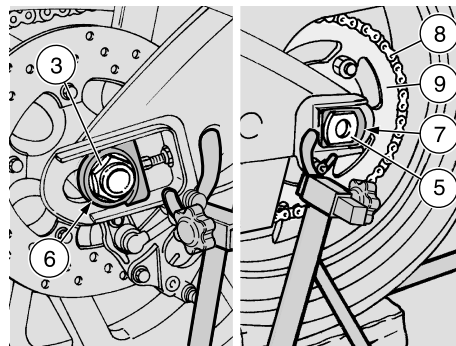
If necessary, contact your **aprilia** Official Dealer.

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

Carefully read p. 59 (MAINTENANCE).

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

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



### ⚠ WARNING

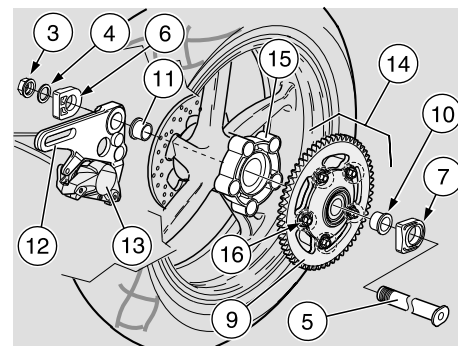
Riding with damaged rims may be dangerous for the rider, other persons and the vehicle.

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

**NOTE** To remove the rear wheel it is necessary to use the appropriate rear support stand **OPT**.

### DISASSEMBLY

- ◆ Position the vehicle on the appropriate rear support stand (1), see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ Put a support (2) under the tyre, in such a way as to keep the wheel in its position after loosening it.



Wheel nut (3) driving torque: 120 Nm (12 kgm).

- ◆ Loosen and remove the wheel nut (3), taking the washer (4).

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

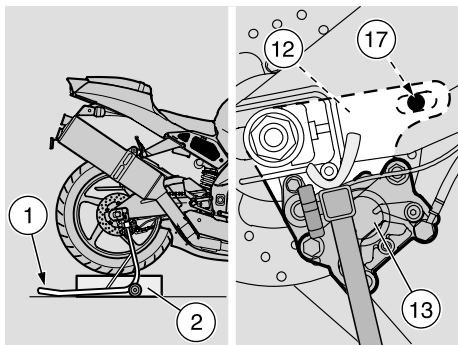
- ◆ Withdraw the wheel pin (5) from the left side.

**NOTE** Check the arrangement of the right (6) and left (7) chain tighteners, in order to be able to reassemble them correctly.

- ◆ Take the right (6) and left (7) chain tighteners.

**NOTE** Lower the drive chain (8) outside the crown gear (9).

- ◆ Make the wheel advance and release the drive chain (8) from the crown gear (9).
- ◆ Withdraw the wheel from the rear fork



from behind, carefully withdrawing the disc from the brake caliper.

### CAUTION

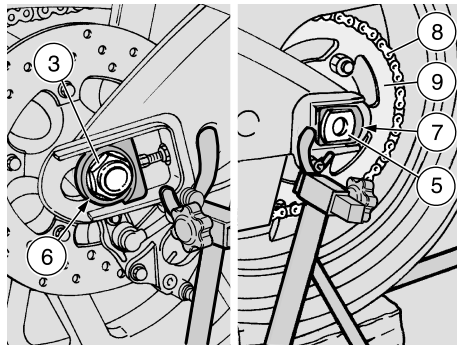
**Do not operate the rear brake lever after removing the wheel, since the pins may go out of their seats and cause brake fluid leakages. In this case consult your **aprilia** Official Dealer, who will carry out the proper maintenance operation.**

### CAUTION

**The left (10) and right spacer rings (11) remain positioned in the respective seats on the wheel; if they should come off, reposition them correctly (see RE-ASSEMBLY).**

**NOTE** The support plate (12) of the brake caliper (13) remains positioned on the right side of the rear fork.

Proceed with care. If the final drive unit (14) is installed on the flexible coupling

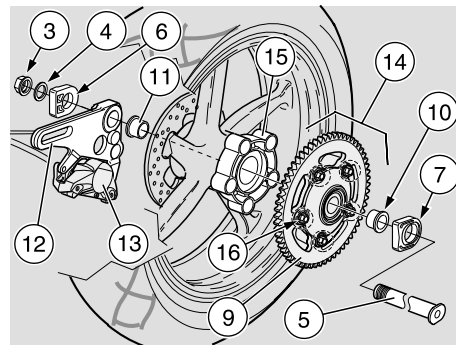


holder (15), do not overturn or rotate the rear wheel in horizontal position on the rear sprocket side (A), since the final drive unit would come off and fall down, with the risk of damaging the rear sprocket (9).

**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 five nuts (16). The whole final drive unit must be withdrawn from the flexible coupling holder.

- ◆ Working (B) with both hands on the outer diameter of the sprocket (9), withdraw the final drive unit parallelly to the wheel axis.



### REASSEMBLY

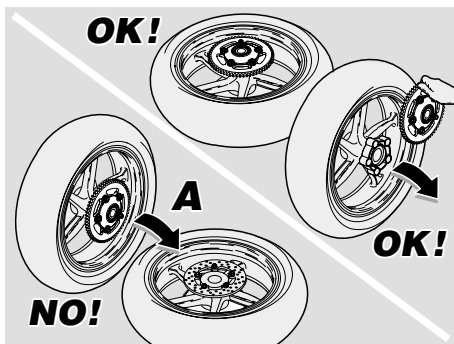
**If the final drive unit (14) has been removed:**

**NOTE** Introduce the final drive unit, parallelly to the wheel axis, inserting the flexible coupling rubber elements in the corresponding seats on the flexible coupling holder (15).

- ◆ Working (C) with both hands on the outer diameter of the sprocket (9), insert the final drive unit in the flexible coupling holder (15).

**NOTE** Perform the operation described below only if the left (10) and/or the right spacer ring (11) have come off their seats.

- ◆ Insert the left (10) and/or the right spacer ring (11) in the respective seats, with the longer diameter towards the outside of the vehicle.



### ⚠ CAUTION

Before proceeding with the reassembly, make sure that support plate (12) of the brake caliper (13) is positioned correctly; the plate slot must be inserted in the appropriate stop pin (17) in the inner part of the rear fork right rod.

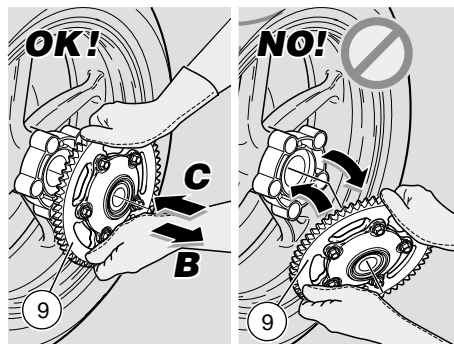
Insert the disc in the brake caliper carefully.

- ◆ Position the wheel between the rear fork rods on the support (2).

### ⚠ WARNING

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

- ◆ Make the wheel advance and position the drive chain (8) on the crown gear (9).
- ◆ Correctly insert the right (6) and left (7) chain tighteners in their seats on the fork.
- ◆ Uniformly apply a moderate quantity of



grease on the wheel pin (5), see p. 113 (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 (12), complete with brake caliper (13) and with fulcrum on the stop pin (17), until it is aligned with the holes.
- ◆ Introduce the wheel pin (5) completely from the left side.

**NOTE** Make sure that the wheel pin (5) is completely inserted, with the head in the relevant seat on the left chain tightener (7).

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

- ◆ Check the chain tension, see p. 74 (DRIVE CHAIN).

- ◆ Tighten the wheel nut (3).

**Wheel nut (3) driving torque: 120 Nm (12 kgm).**

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

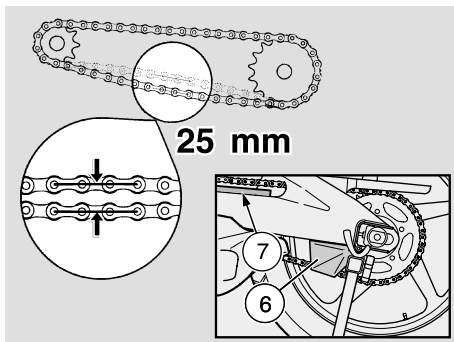
- tyre;
- wheel;
- brake discs.

### ⚠ CAUTION

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

**Check the wheel centering.**

**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.**



## DRIVE CHAIN

Carefully read p. 59 (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. 74 (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.

**NOTE** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

## CHECKING THE SLACK

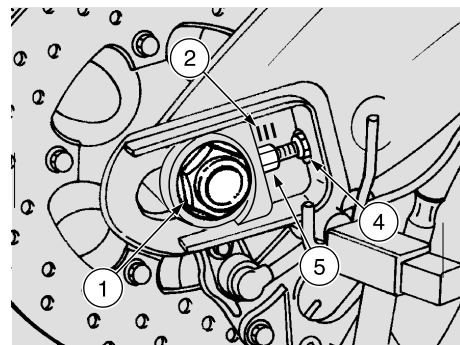
To check the slack, proceed as follows:

- ◆ Stop the engine.
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ 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 about **25 mm**.
- ◆ Move the vehicle forwards, or turn the wheel, in order to be able to check the vertical oscillation of the chain even when the wheel turns; the slack must be constant in all the rotation phases of the wheel.

### ⚠ 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. 75 (CLEANING AND LUBRICATION).

If the slack is uniform, but higher or lower than **25 mm**, adjust it, see p. 74 (ADJUSTMENT).



## ADJUSTMENT

**NOTE** To adjust the chain it is necessary to use the appropriate rear support stand **OPT**.

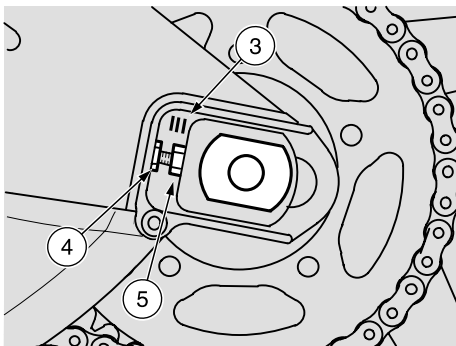
If after the check it is necessary to adjust the chain tension, proceed as follows:

- ◆ Position the vehicle on the appropriate rear support stand, see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ Loosen the nut (1) completely.

**NOTE** For the wheel centering fixed reference marks (2-3) are provided, which can be seen inside the chain tightener seats on the rear fork arms, before the wheel pin.

- ◆ Loosen the two lock nuts (4).
- ◆ Act on the adjusters (5) and adjust the chain slack, making sure that the reference marks (2-3) are correctly positioned on both sides of the vehicle.





- ◆ Tighten the two lock nuts (4).
- ◆ Tighten the nut (1).

**Wheel nut (1) driving torque: 120 Nm (12 kgm).**

- ◆ Check the chain slack, see p. 74 (CHECKING THE SLACK).

### CHECKING THE DRIVING CHAIN, PINION AND SPROCKET WEAR

Further, check the following parts every 7500 km (4687 mi) and make sure that chain, pinion and crown 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).**

**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.**

- ◆ Check the wear of the chain plastic guide (6).
- ◆ Finally, check the wear of the rear fork protection shoe (7).

### 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.

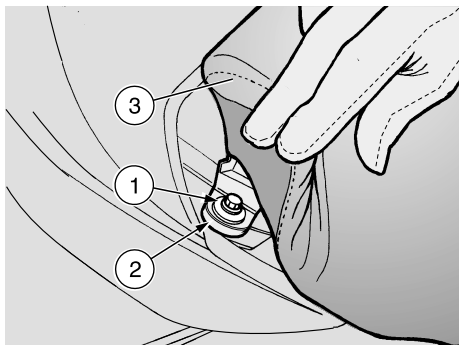
Lubricate the chain every 1000 km (625 mi) or whenever necessary.

- ◆ After washing the chain and letting it dry, lubricate it with spray grease for chains provided with sealing rings, see p. 113 (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.



## REMOVING THE RIDER SADDLE

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ ★ Partially raise the rear side edge of the saddle.
- ◆ ★ Unscrew and remove the screw (1) and take the bushing (2).

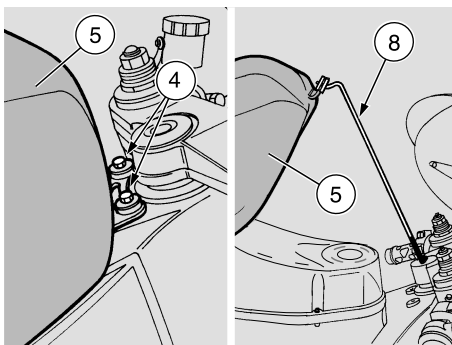
**Screw (1) driving torque: 12 Nm (1.2 kgm).**

- ◆ Raise and remove the saddle (3).

**NOTE** Upon reassembly, insert the front tang of the saddle in the appropriate seat.

## ⚠ CAUTION

Before leaving, make sure that the saddle (3) is properly positioned and locked.



## LIFTING THE FUEL TANK

Carefully read p. 33 (FUEL) and p. 59 (MAINTENANCE).

## ⚠ WARNING

**Risk of fire.**

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

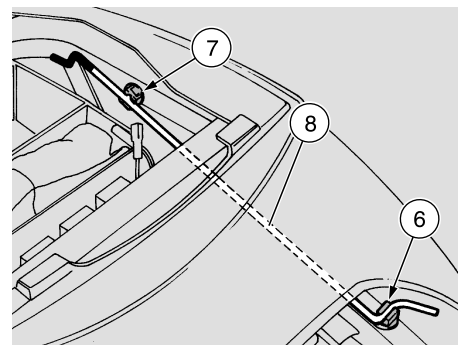
**Fuel vapours are noxious for your health.**

**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.**



- ◆ **RSV** Remove the passenger seat (or the glove/tool kit compartment cover **OPT**), see p. 29 (UNLOCKING/LOCKING THE PASSENGER SEAT W).

- ◆ **RSV R** Remove the glove/tool kit compartment cover, see p. 30 (UNLOCKING/LOCKING THE GLOVE/TOOL KIT COMPARTMENT COVER w).

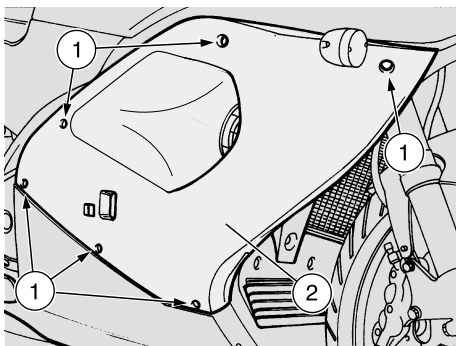
- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).

- ◆ Unscrew and remove the two screws (4) that fasten the front part of the fuel tank (5).

- ◆ Remove the fuel tank support rod (8) from the relevant anchorage seats (6-7).

**NOTE** The rubber-covered end of the rod (8) must be introduced in the central hole of the steering pin.

- ◆ Lift the front part of the fuel tank (5) and introduce the rod (8) as indicated in the figure.



## REMOVING THE SIDE FAIRINGS

Carefully read p. 59 (MAINTENANCE).

### ⚠ WARNING

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

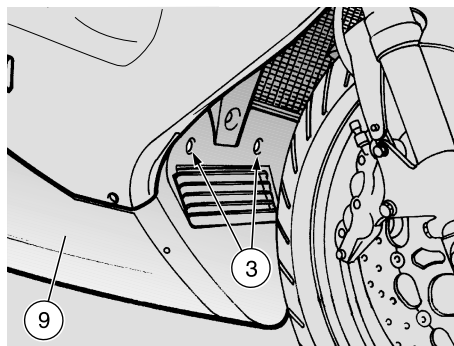
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Rotate the six rapid fastening screws (1) by giving them 1/4 turn anticlockwise.

### ⚠ CAUTION

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

- ◆ Remove the side fairing (2).

**NOTE** Repeat these operations to remove the other side fairing.

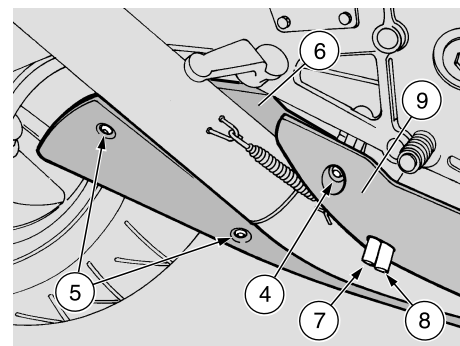


## REMOVING THE LOWER FAIRING

Carefully read p. 59 (MAINTENANCE).

**NOTE** To remove the lower fairing, it is necessary to use the appropriate rear support stand **OPT**.

- ◆ Position the vehicle on the appropriate rear support stand, see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ Remove the two side fairings, see p. 77 (REMOVING THE SIDE FAIRINGS).
- ◆ Unscrew and remove the two front screws (3).
- ◆ ★ Unscrew and remove the rear screw (4).
- ◆ Unscrew and remove the two screws (5) of the rear right profile (6) (inside the exhaust silencer).



### ⚠ CAUTION

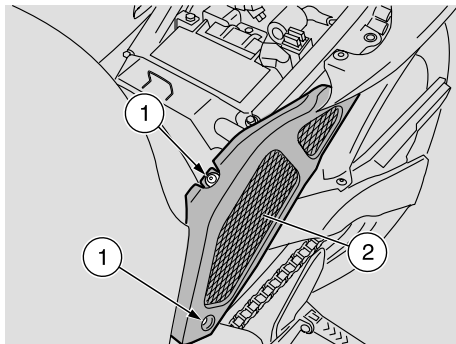
Handle the plastic and painted components with care to avoid scraping or damaging them.

- ◆ Let the side stand down.
- ◆ Withdraw the two pipes (7-8) from the hole provided on the fairing.
- ◆ Remove the entire lower fairing (9) by lowering it and with small movements try to find the best position to withdraw it from the side stand.

**NOTE** Upon reassembly, introduce the two pipes (7-8) in the hole provided on the fairing.

- ◆ Take the rear right profile (6).

**NOTE** Upon reassembly, the upper part of the profile (6) must be fitted between the lower fairing (9) and the support plate.



## REMOVING THE SIDE COVERS

- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).
- ◆ Unscrew and remove the two screws (1).

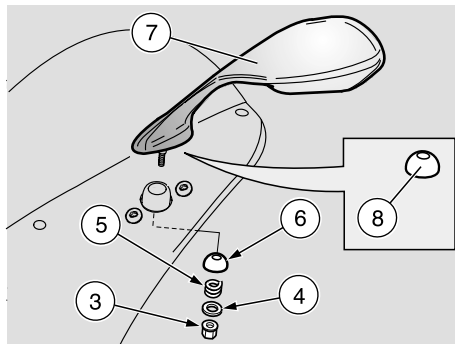
### ⚠ CAUTION

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

- ◆ Remove the side cover (2).

**NOTE** Upon reassembly, make sure that the rear coupling is positioned correctly.

Repeat these operations to remove the other side cover.



## REMOVING THE REAR-VIEW MIRRORS

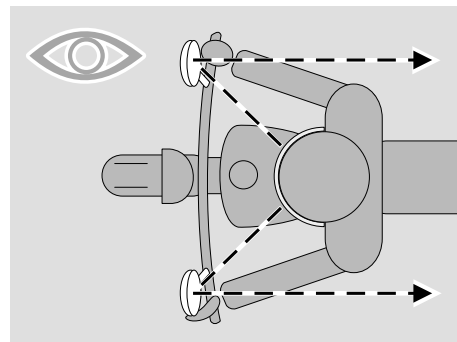
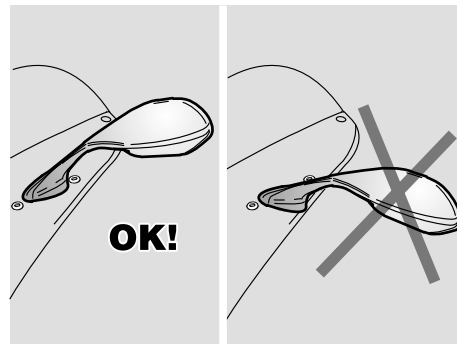
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the nut (3), take the washer (4), the spring (5) and the half sphere (6).

### ⚠ CAUTION

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

- ◆ Remove the rear-view mirror (7).
- ◆ If it has gone out of its seat, take the cup (8).

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

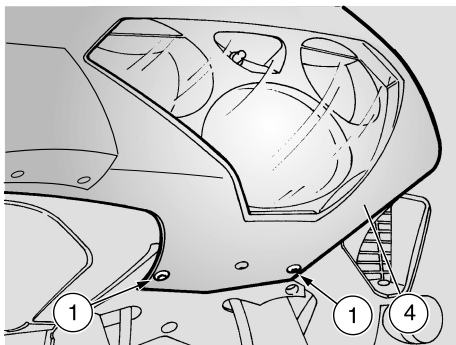


### ⚠ CAUTION

After reassembly, correctly adjust the rear-view mirrors and tighten the nuts in such a way as to ensure their stability.

**After reassembly:**

- ◆ Adjust the inclination of the rear-view mirrors correctly.



## REMOVING THE FRONT PART OF THE FAIRING

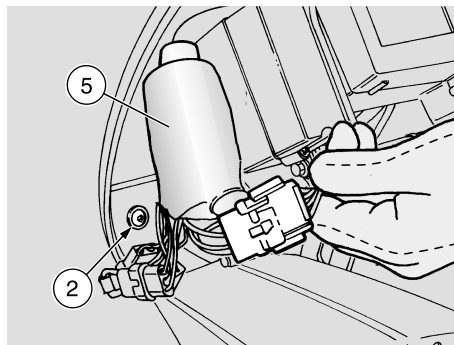
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Turn the ignition switch to position "⏻".
- ◆ Unscrew and remove the two lower screws (1).
- ◆ ★ Unscrew and remove the side screw (2).

### ⚠ CAUTION

Upon reassembly, tighten the screw (2) moderately, since it is fixed on plastic.

- ◆ ★ Unscrew and remove the two upper screws (3).

**NOTE** Upon reassembly, rotate the rear-view mirror support so that the fastening holes coincide with those provided on the front part of the fairing.



The whole unit must be correctly positioned on the support.

- ◆ Move the front part of the fairing (4) slightly forward.
- ◆ Raise the protection element (5).
- ◆ Disconnect the electric connector (6) of the headlight.

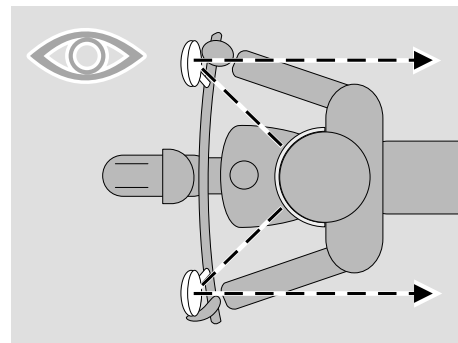
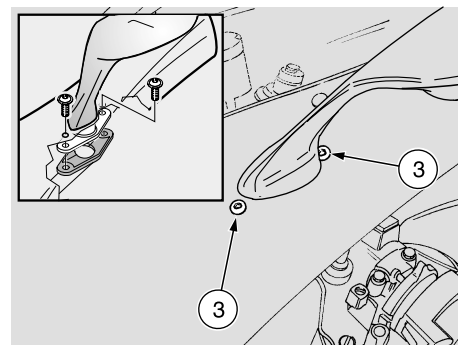
### ⚠ CAUTION

Upon reassembly, make sure that the electric connector (6) is correctly coupled.

### ⚠ CAUTION

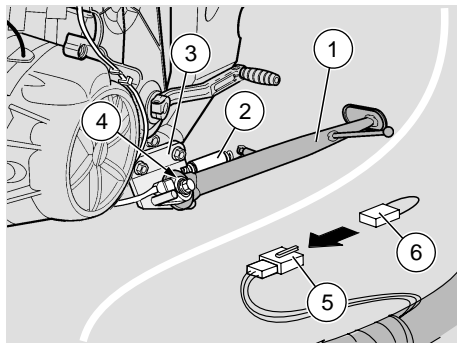
Handle the plastic and painted components with care to avoid scraping or damaging them.

- ◆ Remove the front part of the fairing (4) completely, together with the headlight and the rear-view mirrors.



**After reassembly:**

- ◆ Adjust the inclination of the rear-view mirrors correctly.



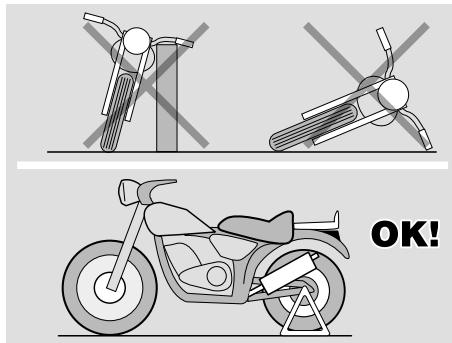
## REMOVING THE SIDE STAND

Carefully read p. 59 (MAINTENANCE).

Only when the vehicle must be used on racetracks, it is advisable to remove the stand (1) complete with:

- springs (2);
- support (3);
- safety switch (4).

**NOTE** The removal of the safety switch (4) disconnects the electric circuit; to restore it, connect the wiring (6) (aprilia part # 8124943), which is available at any **aprilia** Official Dealer, to the connector (5).



## ⚠ CAUTION

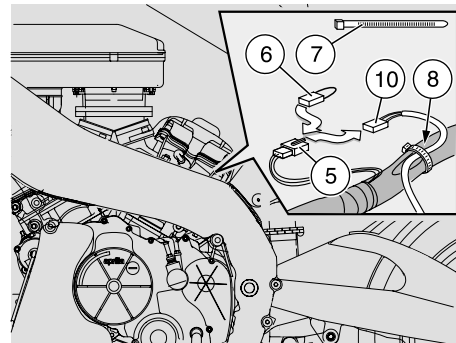
Neither lean the vehicle against walls, nor lay it on the ground.

To park the vehicle without stand (the removal of the stand is allowed only for the use of the vehicle on racetracks), always and exclusively use the rear support stand **OPT**.

## ⚠ WARNING

It is forbidden to disconnect or remove the safety switch (4) separately from the stand.

The disconnection or removal of the safety switch (4) alone makes it possible to start the vehicle and leave with the stand down, which may result in a fall and in serious injuries to the rider and other people and damage to the vehicle itself.



For the removal, proceed as follows:

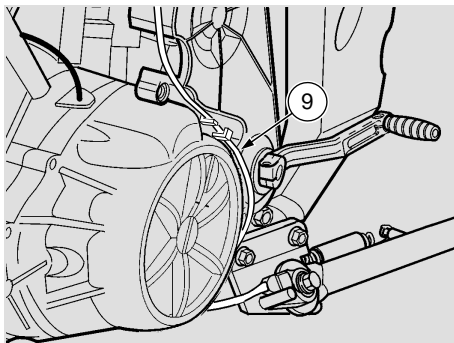
- ◆ Remove the left side cover, see p. 78 (REMOVING THE SIDE COVERS).
- ◆ Remove the lower fairing, see p. 77 (REMOVING THE LOWER FAIRING).
- ◆ Lift the fuel tank, see p. 76 (LIFTING THE FUEL TANK)

**NOTE** Prepare a clamp (7) to be used for the reassembly.

## ⚠ CAUTION

Do not force cables, pipes, connectors and wires.

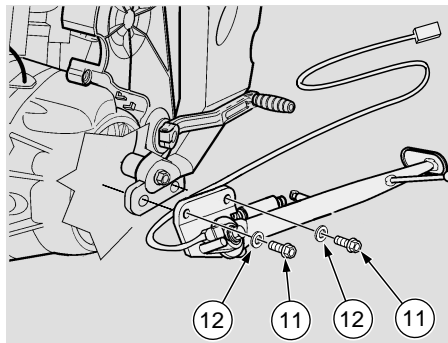
- ◆ Cut the clamp (8) and release the cable (9).
- ◆ Disconnect the electric connector (10) from the connector (5).
- ◆ Connect the wiring (6) (aprilia part # 8124943) [replacing the electric connector (10)].



- ◆ Withdraw the cable (9) completely.
- ◆ Put back the fuel tank, see p. 76 (LIFTING THE FUEL TANK).
- ◆ Put back the left side cover, see p. 78 (REMOVING THE SIDE COVERS).

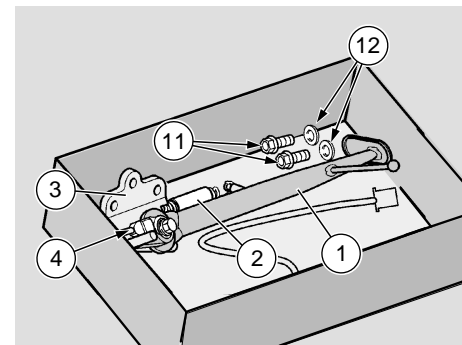
**NOTE** Support the stand, in order to prevent it from accidentally falling down.

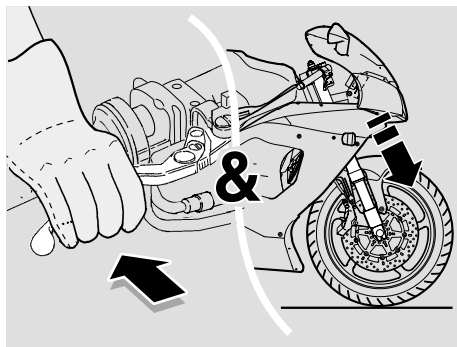
- ◆ Unscrew and remove the screws (11) and take the washers (12).
- ◆ Remove the stand (1) complete with:
  - springs (2);
  - support (3);
  - safety switch (4).



**NOTE** Store the following components together: complete stand, screws (11) and washers (12), in order to be able to install them correctly when the vehicle must be used on roads.

- ◆ Put back the lower fairing (and the two side fairings), see p.77 (REMOVING THE LOWER FAIRING).





## INSPECTING THE FRONT AND REAR SUSPENSIONS

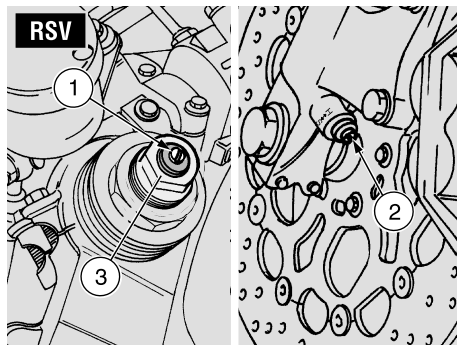
Carefully read p. 59 (MAINTENANCE).

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

**NOTE** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Have the front fork oil changed after the first 7500 km (4687 mi) and successively every 22500 km (14000 mi).

With "R" front fork **RSV R** (**RSV** **OPT**), have the oil changed every 10000 km (6250 mi).

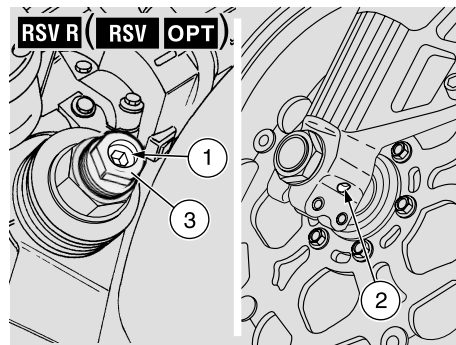


Carry out the following checks after the first 1000 km (625 mi) and successively every 15000 km (9375 mi):

- ◆ 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 (1875 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.

For the setting of the vehicle attitude, each rod of the fork is provided with an upper screw (1) for the adjustment of the hydraulic braking with extended shock absorber, a lower screw (2) for the adjustment of the hydraulic braking with compressed shock absorber and an upper nut (3) for the adjustment of the spring preload.

## ADJUSTING THE FRONT FORK

### ⚠ CAUTION

Do not force the rotation of the adjusters (1-2) beyond the end of stroke in both directions, in order to avoid any



damage. Set the same spring preload and hydraulic braking for both rods: a different setting of the rods decreases the stability of the vehicle while riding. When the spring preload is increased, it is necessary to increase also the hydraulic braking, in order to avoid sudden jerks while riding.

For the adjustment of the fork:

- **RSV** see p. 83 (FORK W);
- **RSV R** (**RSV** **OPT**) see p. 84 ["R" FORK w (W m)].

## FORK **RSV**

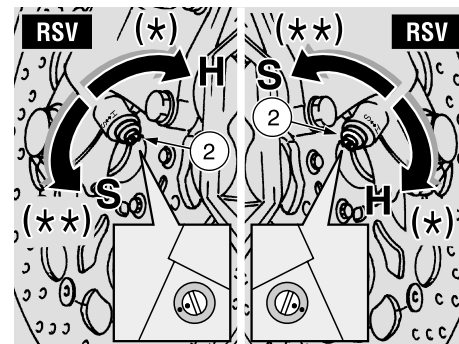
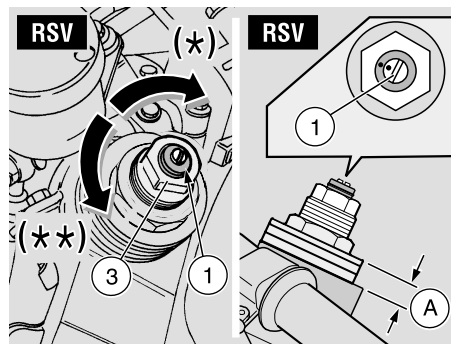
The standard setting of the front fork is such as to satisfy most driving conditions at low and high speed, either with reduced load and full load.

However, it is also possible to adjust the setting according to the intended use of the vehicle.

## ⚠ CAUTION

For the adjustment, always start from the most rigid setting [complete clockwise rotation of the adjusters (1-2)]. Use the notches (1-2) provided on the adjusters as reference marks for the adjustment of the hydraulic braking with compressed and extended shock absorber. Gradually rotate the adjusters (1-2) giving 1/8 turn per time.

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



Front suspension	Standard adjustment	Adjustment for racetrack use	Possible adjustments
Hydraulic adjustment with extended shock absorber, screw (1)	from completely closed (*) open (**) 1.25 turns	from completely closed (*) open (**) 0.5 – 1 turn	from completely closed (*) open (**) 0.5 – 1.5 turns
Hydraulic adjustment with compressed shock absorber, screw (2)	from completely closed (*) (H) open (**) (S) 1 turns	from completely closed (*) (H) open (**) (S) 0.5 – 1 turn	from completely closed (*) open (**) 0.5 – 2 turns
Spring preload, nut (3)	from completely closed (*) open (**) 4 – 5 reference notches		from completely closed (*) open (**) 3 – 5 reference notches
Protrusion of the rods (A) (***) from the upper plate (plug excluded)		3 reference notches	2 – 4 reference notches

(\*) = clockwise

(\*\*) = anticlockwise

(\*\*\*) = Have this type of adjustment carried out exclusively by an **aprilia** Official Dealer

## "R" FORK RSV R (RSV OPT)

The standard setting of the front fork is adjusted in such a way as to be suitable for racetrack riding.

However, it is possible to adjust the setting according to how the vehicle is going to be used.

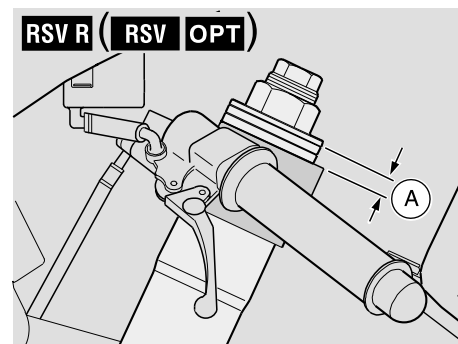
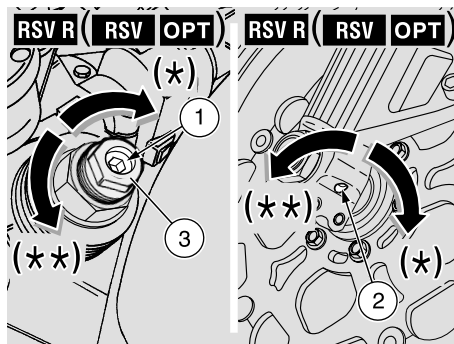
### ⚠ CAUTION

To calculate the number of clicks of the adjusters (1-2), always start from the most rigid setting (complete clockwise rotation of the adjuster).

Use the adjusters (1-2) as reference point for the adjustment of the hydraulic braking with compressed and extended shock absorber (1-2).

Give the adjusters (1-2) one notch at a time.

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

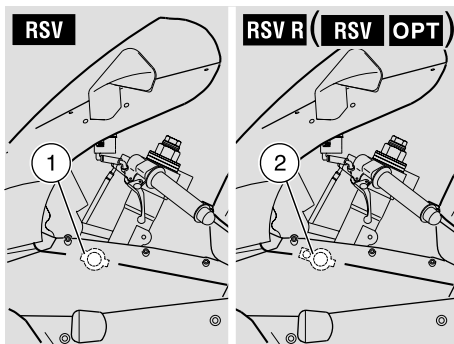


Front suspension	Standard adjustment	Adjustment for racetrack use	Possible adjustments
Hydraulic adjustment with extended shock absorber, screw (1)	from completely closed (*) unscrew (**) 12 clicks	from completely closed (*) unscrew (**) 8 – 10 clicks	from completely closed (*) unscrew (**) 6 – 15 clicks
Hydraulic adjustment with compressed shock absorber, screw (2)			from completely closed (*) unscrew (**) 5 – 16 clicks
Spring preload, nut (3)	from completely open (**) screw (*) 8 turns	from completely open (**) screw (*) 6 – 9 turns	from completely open (**) screw (*) 5 – 10 turns
Protrusion of the rods (A) (***) from the upper plate (plug excluded)	4 reference notches		2 – 5 reference notches

(\*) = clockwise

(\*\*) = anticlockwise

(\*\*\*) = Have this type of adjustment carried out exclusively by an **aprilia** Official Dealer



## STEERING DAMPER

**RSV** non-adjustable shock absorber (1).

**RSV R (RSV OPT)** adjustable shock absorber (2).

**RSV R (RSV OPT)**

The steering damper (2) is provided with a knob (3) for the adjustment of the hydraulic braking (see table).

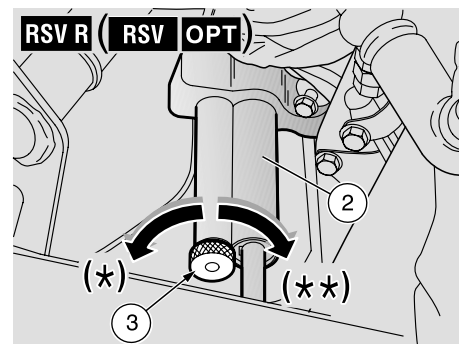
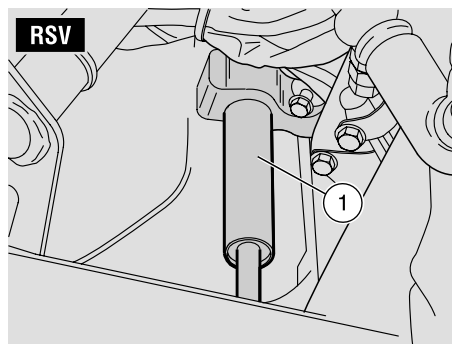
**For the adjustment, proceed as follows:**

- ◆ Rotate the handlebar completely left-wards.

### ⚠ CAUTION

**For the adjustment, always start from the most rigid setting (complete anti-clockwise rotation of the knob).**

- ◆ Act on the knob (3) to adjust the hydraulic braking (see table).



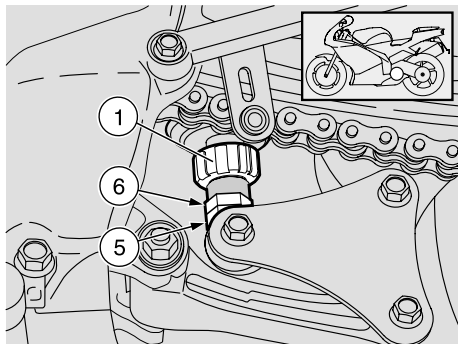
Adjustable steering damper <b>RSV R (RSV OPT)</b>	Standard adjustment	Adjustment for racetrack use	Possible adjustments
Adjustment	from completely closed (**) open (*) 15 clicks		from completely closed (**) open (*) 2 – 17 clicks

(\*) = anticlockwise

(\*\*) = clockwise

### ⚠ CAUTION

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

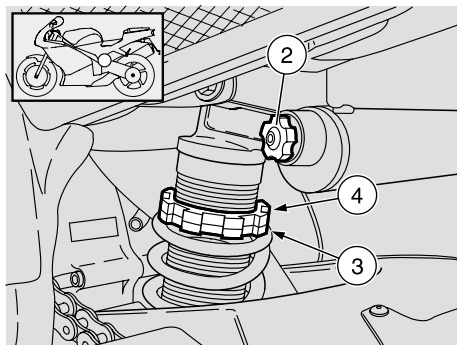


## REAR SUSPENSION

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 adjustment of the setting, the shock absorber is provided with a ring nut adjuster (1) for the hydraulic braking with extended shock absorber, with a knob adjuster (2) for the hydraulic braking with compressed shock absorber, with a ring nut for the spring preload (3) and with a locking ring nut (4).

**NOTE** It is possible to adjust the height of the rear part of the vehicle, to personalize the attitude of the vehicle itself.



## ADJUSTING THE REAR SHOCK ABSORBER

**NOTE** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Check and if necessary adjust the rear shock absorber every 15000 km (9375 mi).

The standard setting of the rear shock absorber is adjusted in such a way as to be suitable for racetrack riding.

However, it is possible to adjust the setting according to how the vehicle is going to be used.

## ⚠ CAUTION

To calculate the number of clicks of the adjusters (1-2), always start from the most rigid setting (complete clockwise rotation of the adjuster).

Do not force the rotation of the adjusters (1-2) beyond the end of stroke in both directions, in order to avoid any damage.

- ◆ Unscrew the lock metal ring (4) by means of the appropriate spanner.
- ◆ Adjust the preload of the spring (B) through the adjusting ring nut (3) (see table).
- ◆ After the adjustment, tighten the metal ring (4).
- ◆ Adjust the metal ring (1) to adjust the hydraulic braking with extended shock absorber (see table).
- ◆ Adjust the knob (2) to adjust the hydraulic braking with compressed shock absorber (see table).

**To vary the attitude of the vehicle, proceed as follows:**

- ◆ Moderately loosen the lock nut (5).
- ◆ Adjust the shock absorber length (distance between centres) (6) through the adjuster (A) (see table).

## ⚠ CAUTION

**The lock nut (5) must be tightened with the indicated driving torque.**

- ◆ After the adjustment, tighten the lock nut (5).

**Driving torque lock nut (5): 40 Nm (4 kgm).**

## ⚠ 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.

## ⚠ CAUTION

**RSV** To avoid affecting the operation of the shock absorber, neither remove the plug (7), nor adjust the underlying valve, since this may cause nitrogen to flow out, with consequent risk of accidents.

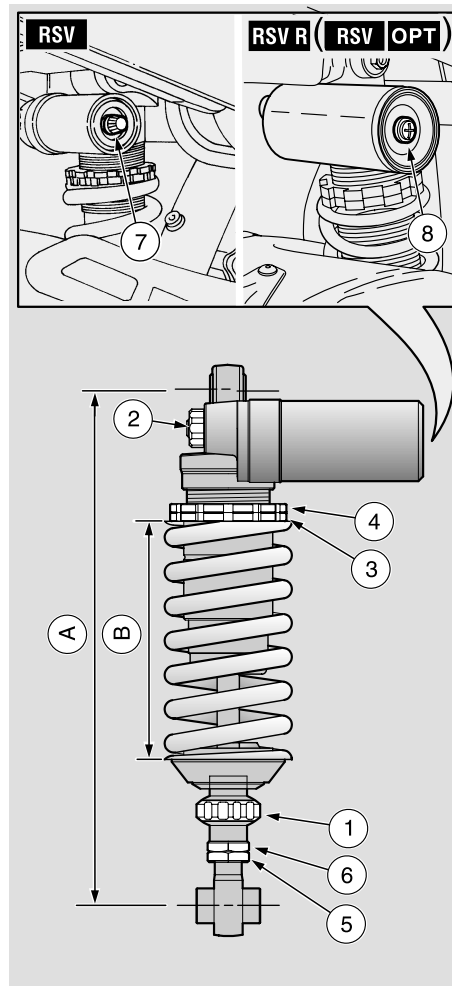
## ⚠ CAUTION

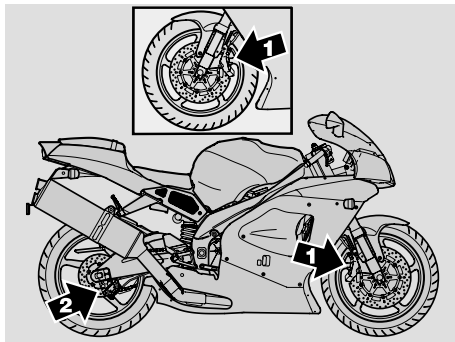
**RSV R (RSV OPT)** In order to avoid compromising the operation of the shock absorber, neither loosen the screw (8), nor work on the underlying membrane, since this may cause an emission of nitrogen; risk of accident.

Rear suspension	Standard adjustment	Adjustment for racetrack use	Possible adjustments
Shock absorber distance between centers (A)	321 ±1.5 mm	from 321 to 323 mm	from 319 to 323 mm
Spring length (preloaded) (B)	147 mm	145 mm	from 143 to 149 mm
Adjustment with extended shock absorber, metal ring (1)	from completely closed (*) open (**): - <b>RSV</b> 12 – 16 clicks - <b>RSV R</b> 13 – 16 clicks	from completely closed (*) open (**): - <b>RSV</b> 12 – 16 clicks - <b>RSV R</b> 13 – 16 clicks	from completely closed (*) open (**) 10 – 20 clicks
Adjustment with compressed shock absorber, knob (2)	from completely closed (*) open (**) 12 clicks	from completely closed (*) open (**) 8 – 14 clicks	from completely closed (*) open (**) 5 – 15 clicks

(\*) = clockwise

(\*\*) = anticlockwise





## CHECKING THE BRAKE PAD WEAR

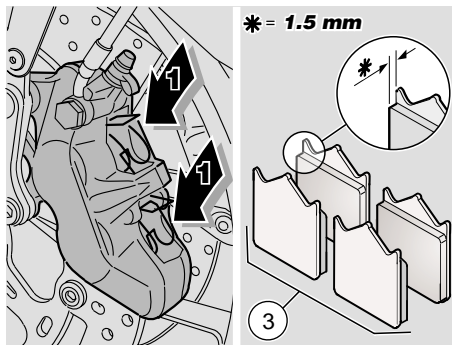
Carefully read p. 34 (BRAKE FLUID - recommendations), p. 35 (DISC BRAKES) and p. 59 (MAINTENANCE).

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

**NOTE** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

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:

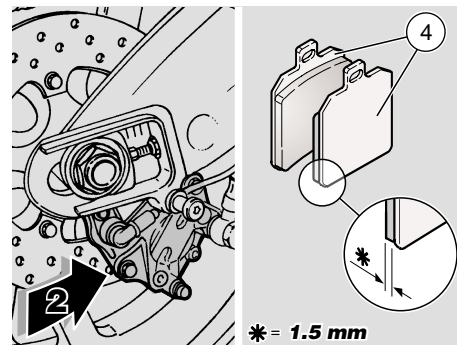
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).

**NOTE** Both front brake calipers (right and left) are provided with four brake pads. The rear brake caliper is provided with two brake pads.

- ◆ Carry out a visual check between the disc and the pads, proceeding:
  - from above, on the rear part, for the front brake calipers (1);
  - from below, on the rear part, for the rear brake caliper (2).

## ⚠ WARNING

The excessive wear of the friction mate-



rial 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 calipers** (right and left), have all pads of both calipers changed.
- **for the rear brake caliper**, have both pads of the caliper changed.

## ⚠ WARNING

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

## ADJUSTING THE COLD START CONTROL (N)

### ⚠ CAUTION

The operations necessary to adjust the cold start control “N” require specific skills and therefore should be carried out by an **aprilia** Official Dealer.

## IDLING ADJUSTMENT

Carefully read p. 59 (MAINTENANCE).

Adjust the idling every time it is irregular.

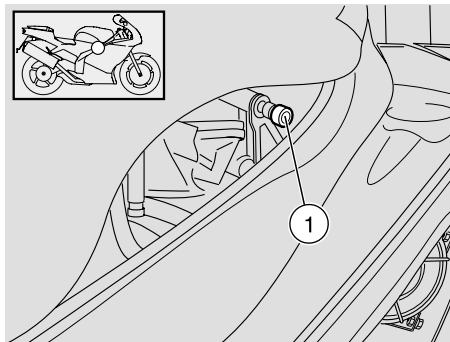
To carry out this operation, proceed as follows:

- ◆ Ride for a few miles until reaching the normal running temperature, see p. 19 (Coolant temperature “E”).
- ◆ Position the gear lever in neutral (green warning light “N” on).
- ◆ Check the engine idling rpm on the revolution counter.

The engine idling speed must be about  $1250 \pm 100$  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.

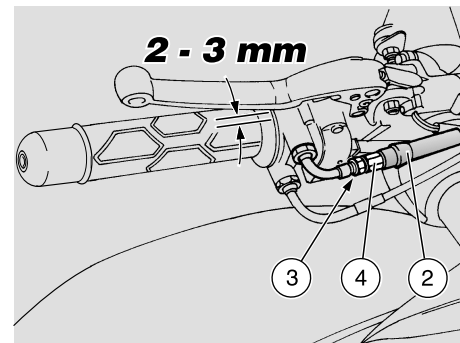
## ADJUSTING THE ACCELERATOR CONTROL

Carefully read p. 59 (MAINTENANCE).

**NOTE** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Have the accelerator control cables checked by an **aprilia** Official Dealer after the first 1000 km (625 mi) and successively every 7500 km (4687 mi).

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

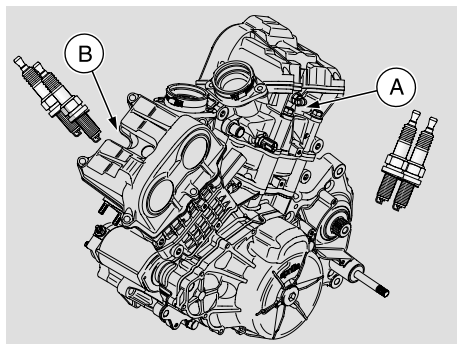


If not, proceed as follows:

- ◆ Position the vehicle on the stand, see p. 58 (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.



## SPARK PLUGS

Carefully read p. 59 (MAINTENANCE).

**NOTE** Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

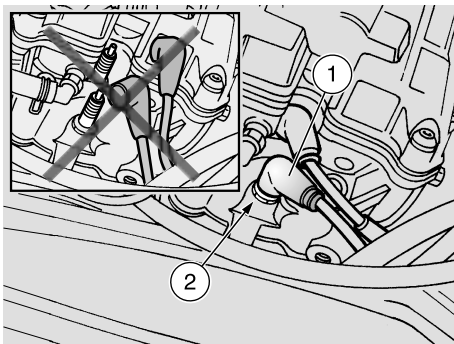
### ⚠ CAUTION

**Check, clean or change all the spark plugs, one by one.**

Check the spark plugs every 7500 km (4687 mi), change them every 15000 km (9375 mi).

In case of use on racetracks, change the spark plugs every 3750 km (2343 mi).

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



### ⚠ CAUTION

Even if only one spark plug needs changing, always replace all of them.

To reach the spark plugs:

### ⚠ 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.

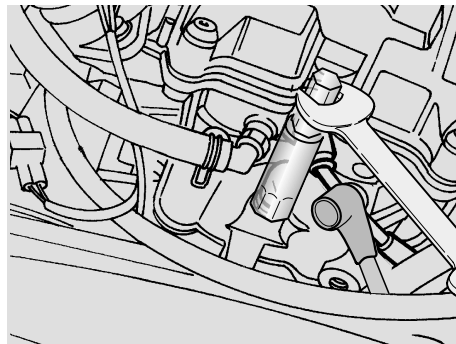
- ◆ Lift the fuel tank, see p. 76 (LIFTING THE FUEL TANK)

**NOTE** The vehicle is equipped with two spark plugs per cylinder (A) and (B).

The following operations refer to the two spark plugs of one cylinder, but are valid for both cylinders.

### ⚠ CAUTION

Carry out all the operations indicated on



the first spark plug and then repeat them on the second spark plug of the same cylinder.

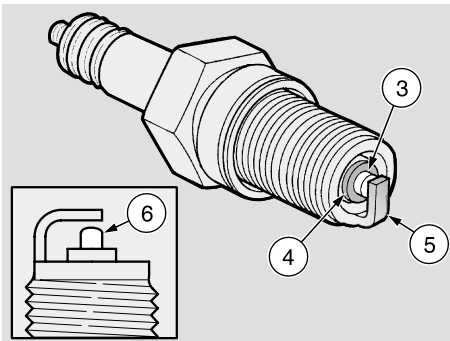
For the removal, proceed as follows:

### ⚠ CAUTION

Do not invert the position of the two spark plug caps.  
Do not remove the two spark plug caps at the same time.

- ◆ 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.
- ◆ Insert the 13 mm fork spanner provided in the tool kit in the hexagonal seat of the spark plug spanner.
- ◆ 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:

### ⚠ CAUTION

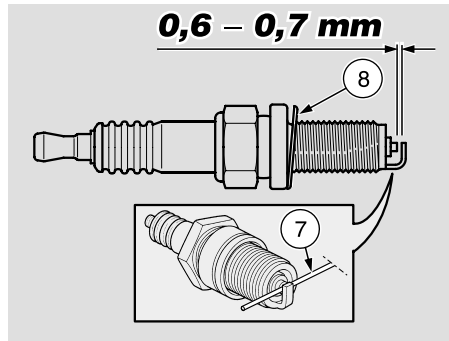
This vehicle is fitted with spark plugs featuring platinum-type electrodes. To clean the spark plugs, do not use wire brushes and/or abrasive products, but only a pressurized air jet.

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. 109 (TECHNICAL DATA), in order not to compromise the life and performance of the engine.

To check the spark plug gap, use a wire thickness gauge (7) to avoid damaging the platinum covering.

- ◆ Check the spark plug gap with a wire thickness gauge (7).

### ⚠ CAUTION

Do not try to recover the spark plug gap in any way.

The gap must be **0.6 – 0.7 mm**, otherwise it is necessary to change the spark plug.

- ◆ Make sure that the washer (8) is in good conditions.

For the installation:

- ◆ With the washer on, 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 kgm).**

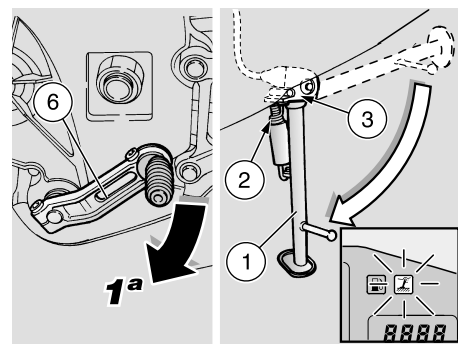
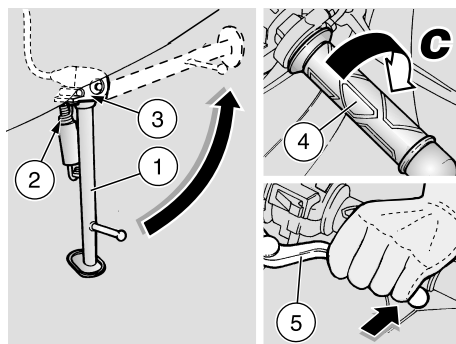
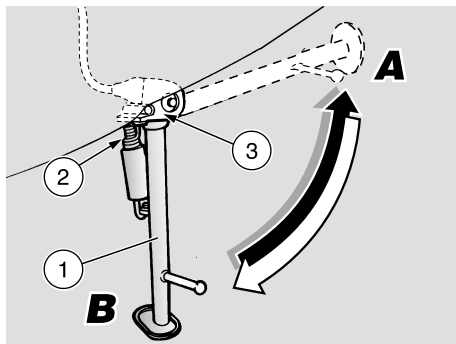
### ⚠ CAUTION

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

- ◆ Position the spark plug cap (1) properly, so that it does not come off due to the vibrations of the engine.

**NOTE** Repeat the operations described on the second spark plug of the same cylinder and successively on both spark plugs of the other cylinder.

- ◆ Put back the fuel tank, see p. 76 (LIFTING THE FUEL TANK).



## CHECKING THE SIDE STAND

Carefully read p. 59 (MAINTENANCE) and p. 97 (CHECKING THE SWITCHES).

The side stand (1) has two positions:

- normal or lifted (**Pos.A**);
- extended (**Pos.B**).

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

The side stand (1) must rotate without hindrances.

The springs (2) provide for keeping the stand in the desired position (extended or lifted).

### Carry out the following checks:

- ◆ Position the vehicle on the appropriate rear support stand, see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ The springs (2) 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. 113 (LUBRICANT CHART).


The side stand (1) is provided with a safety switch (3) 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 (3), proceed as follows:

- ◆ Remove the rear support stand, see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ Seat on the vehicle in driving position.
- ◆ Fold the side stand (1).

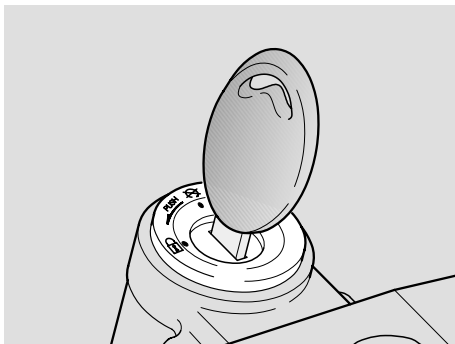
- ◆ Start the engine, see p. 50 (STARTING).
- ◆ With released throttle grip (4) (**Pos.C**) and engine idling, pull the clutch lever (5) completely.
- ◆ Engage the first gear, by pushing the gear lever (6) downwards.
- ◆ Lower the side stand (1), thus operating the safety switch (3).

### At this point:

- the engine must stop;
- the “side stand down” warning light “” must come on.

## CAUTION

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



## BATTERY

Carefully read p. 59 (MAINTENANCE).

### ⚠ WARNING

Risk of fire.

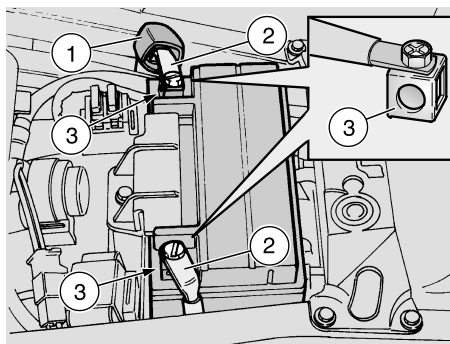
Keep fuel and other flammable substances away from the electrical components.

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.

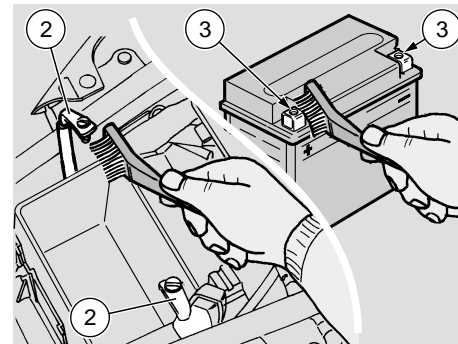


**NOTE** This vehicle is provided with a maintenance-free battery and no operation is necessary, excepting occasional checks and the recharge when required.

## CHECKING AND CLEANING THE TERMINALS

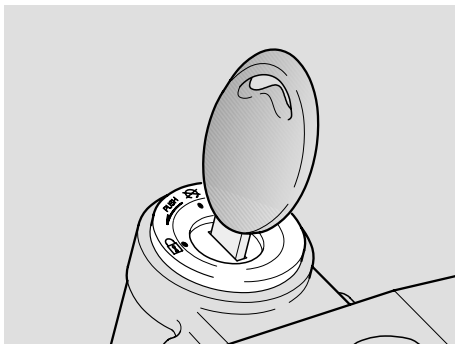
Carefully read p. 93 (BATTERY).

- ◆ Make sure that the ignition switch is in position "⊗".
- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).
- ◆ 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 vase-line.



If necessary, proceed as follows:

- ◆ Remove the battery, see p. 94 (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. 96 (INSTALLING THE BATTERY).



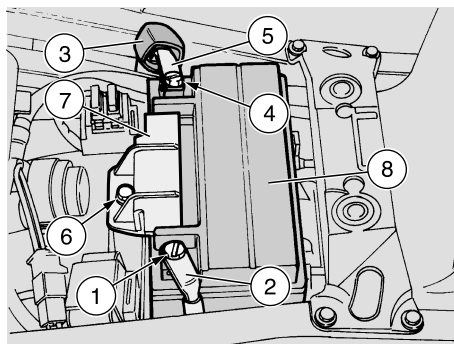
## REMOVING THE BATTERY

### ⚠ CAUTION

To remove the battery it is necessary to set to zero the digital clock and the red line setting. To reset these functions, see p. 20 (MULTIFUNCTION COMPUTER).

Carefully read p. 93 (BATTERY).

- ◆ Make sure that the ignition switch is in position "X".
- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).
- ◆ Unscrew and remove the screw (1) on the negative terminal (-).
- ◆ Move the negative cable (2) sideways.
- ◆ Remove the red protection element (3).

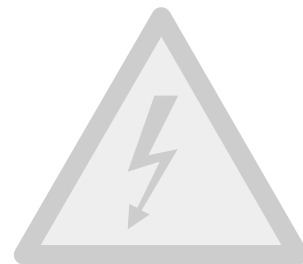


- ◆ Unscrew and remove the screw (4) on the positive terminal (+).
- ◆ Move the positive cable (5) sideways.
- ◆ Unscrew and remove the screw (6).
- ◆ Remove the bracket (7) that locks the battery.
- ◆ Grasp the battery (8) firmly and remove it from its compartment by lifting it.

### ⚠ WARNING

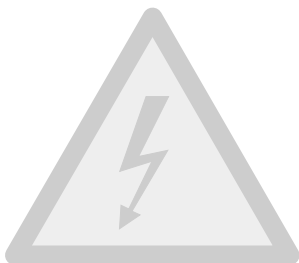
**Once it has been removed, the battery must be stored in a safe place and kept away from children.**

- ◆ Position the battery on a flat surface, in a cool and dry place.



- ◆ Put back the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).

**NOTE** For the installation of the battery, see p. 96 (INSTALLING THE BATTERY).



## CHECKING THE ELECTROLYTE LEVEL

Carefully read p. 93 (BATTERY).

The vehicle is equipped with a maintenance-free battery, which does not require any check of the electrolyte level.

## RECHARGING THE BATTERY

Carefully read p. 93 (BATTERY).

### ⚠ CAUTION

**Do not remove the battery plugs: without plugs the battery may be damaged.**

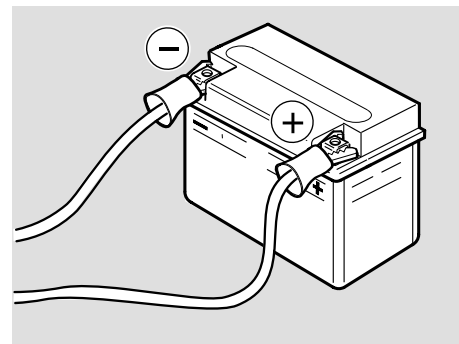
- ◆ Remove the battery, see p. 94 (REMOVING THE BATTERY).
- ◆ Prepare an appropriate battery charger.
- ◆ Set the charger for the desired type of recharge (see table).
- ◆ Connect the battery with a battery charger.

### ⚠ WARNING

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

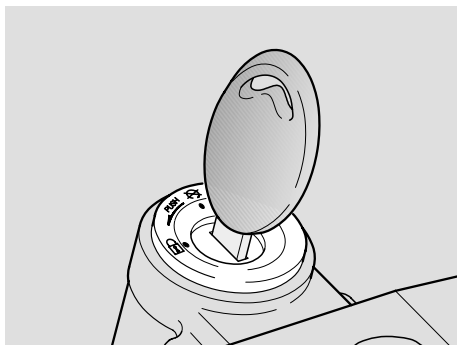
- ◆ Switch on the battery charger.

Type of recharge	Voltage (V)	Voltage (A)	Time (hours)
Normal <b>RSV</b>	12	1.2	8 – 10
Quick <b>RSV</b>	12	12	0.5
Normal <b>RSV R</b>	12	1.0	8 – 10
Quick <b>RSV R</b>	12	1.0	0.5



### ⚠ WARNING

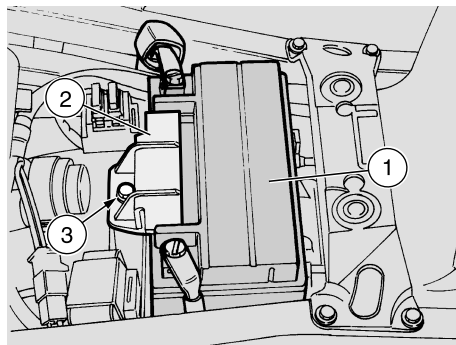
**Reassemble the battery only 5/10 minutes after disconnecting the recharge apparatus, since the battery continues to produce gas for a short lapse of time.**



## INSTALLING THE BATTERY

Carefully read p. 93 (BATTERY).

- ◆ Make sure that the ignition switch is in position "OFF".
- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).

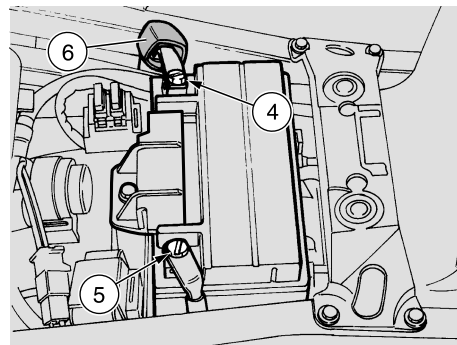


**NOTE** The battery (1) must be positioned in its compartment with the terminals directed towards the rear part of the vehicle.

- ◆ Put the battery (1) in its compartment.
- ◆ Put back the bracket (2) that locks the battery.
- ◆ Screw and tighten the screw (3).

### ⚠ WARNING

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



- ◆ Connect the positive terminal (+) by means of the screw (4).
- ◆ Connect the negative terminal (-) by means of the screw (5).
- ◆ Cover the terminals of the cables and of the battery with neutral grease or vaseline.
- ◆ Put back the red protection element (6).
- ◆ Put back the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).

### ⚠ CAUTION

To remove the battery it is necessary to set to zero the digital clock and the red line setting. To reset these functions, see p. 20 (MULTIFUNCTION COMPUTER).

## LONG INACTIVITY OF THE BATTERY

### ⚠ CAUTION

If the vehicle remains unused for more than twenty days, disconnect the 30A fuses, in order to avoid the deterioration of the battery caused by the current consumption due to the multifunction computer.

**NOTE** The removal of the 30A fuses requires the setting to zero of the following functions: digital clock and red line setting. To reset these functions, see p. 20 (MULTIFUNCTION COMPUTER).

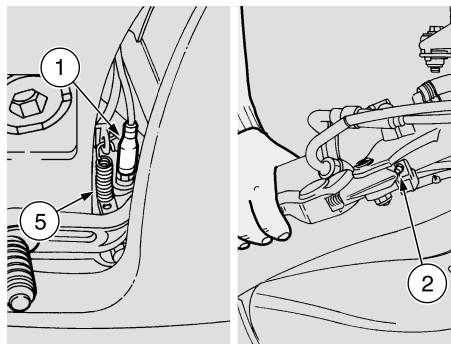
If the vehicle remains unused for more than fifteen days, it is necessary to recharge the battery, in order to prevent its sulphation, see p. 95 (RECHARGING THE BATTERY).

- ◆ Remove the battery, see p. 94 (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 normal charge, see p. 95 (RECHARGING THE BATTERY).

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

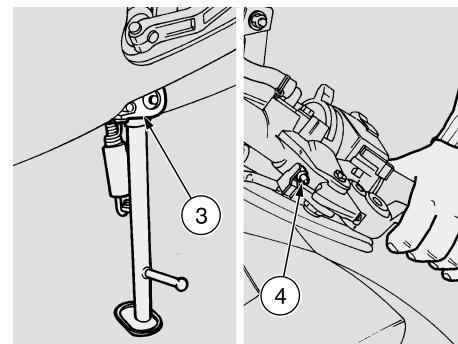


## CHECKING THE SWITCHES

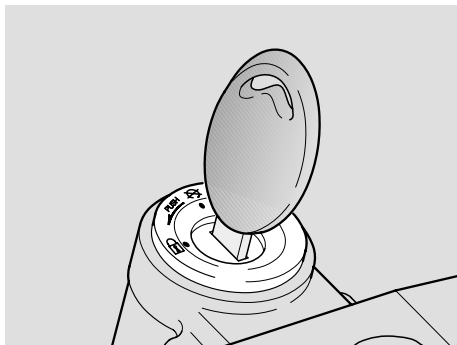
Carefully read p. 59 (MAINTENANCE).

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. 59 (MAINTENANCE).

### ⚠ CAUTION

**Do not repair faulty fuses.**

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

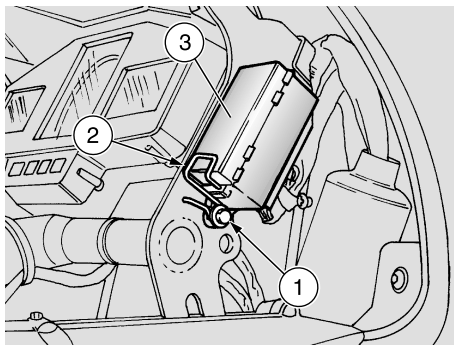
**The use of unsuitable fuses may cause damages to the electric system or, in case of short circuit, even a fire.**

**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.

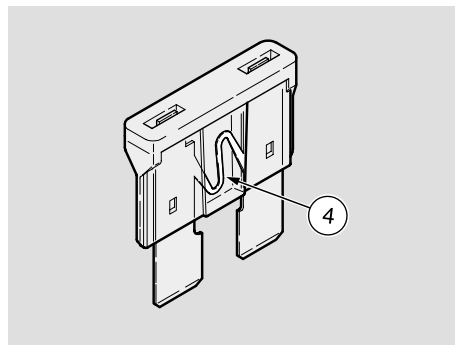
Check first the 15A secondary fuses and then the 30A primary fuses.



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

- ◆ Turn the ignition switch to position "⏏", to avoid any accidental short circuit.
- ◆ Loosen the screw (1).
- ◆ Move the safety clip (2).
- ◆ Open the cover of the box (3) containing the secondary fuses.
- ◆ Extract the fuses one by one and check if the filament (4) 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.

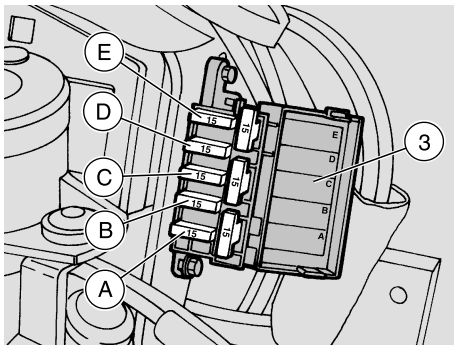
**NOTE** If you use one of the spare fuses, put a new fuse in the proper seat.



- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).
- ◆ Carry out the operations previously described for the secondary fuses also for the main fuses.

**NOTE** The removal of the 30A fuses requires the setting to zero of the following functions: digital clock and red line setting. To reset these functions, see p. 20 (MULTIFUNCTION COMPUTER).

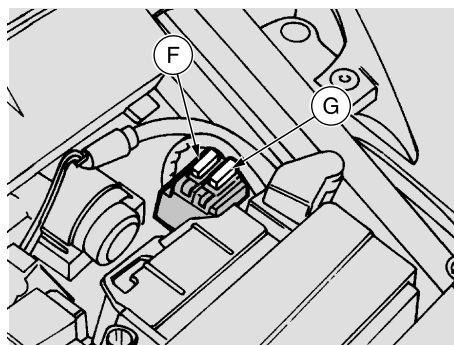




#### ARRANGEMENT OF THE 15A SECONDARY FUSES

- A) From voltage regulator to:  
high beam relay, low beam relay.
- B) From voltage regulator to:  
coils, engine stop relay, fuel pump.
- C) From ignition switch to:  
electric fans, clock.
- D) From ignition switch to:  
parking lights, rear stoplights, horn,  
dashboard lights, direction indicators.
- E) From ignition switch to:  
electronic unit, fuel pump relay, engine  
stop relay.

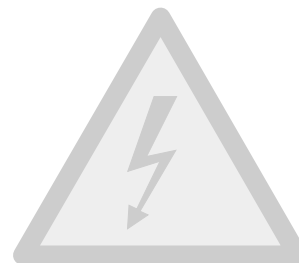
**NOTE** Three fuses are spare fuses.

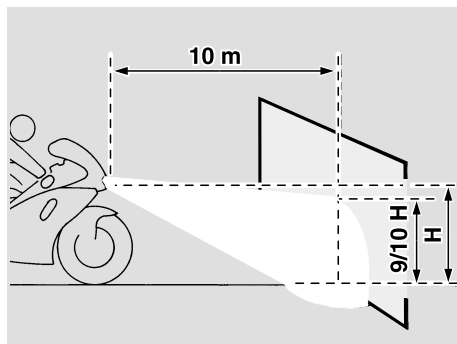


#### ARRANGEMENT OF THE 30A MAIN FUSES

- F) From battery to: ignition.
- G) From battery to: ignition.

**NOTE** One fuse is a spare fuse.





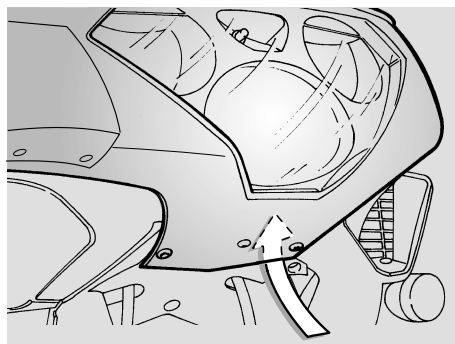
## ADJUSTING THE VERTICAL HEADLIGHT BEAM

**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.



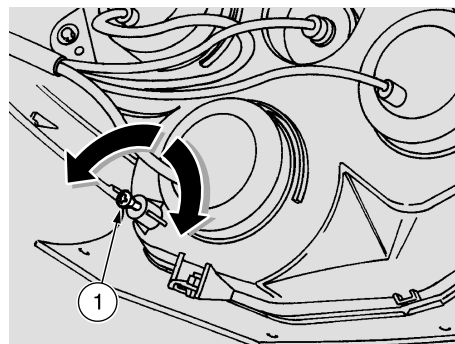
To rapidly check the correct direction of the beam, place the vehicle on flat ground, 10 m away from a wall.

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:**

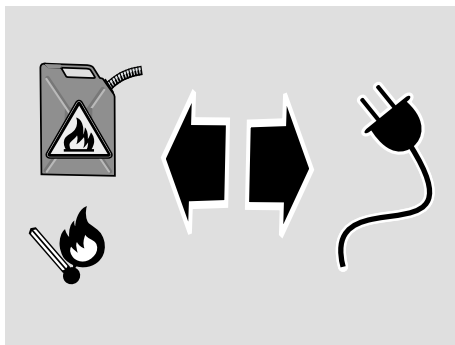
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Working on the rear left side of the front part of the fairing, adjust the appropriate screw (1) by means of a short cross-tip screwdriver.
  - By **SCREWING IT** (clockwise), you set the beam upwards;
  - By **UNSCREWING IT** (anticlockwise), you set the beam downwards.



**After the adjustment:**

## ⚠ WARNING

**Make sure that the vertical adjustment of the headlight beam is correct.**



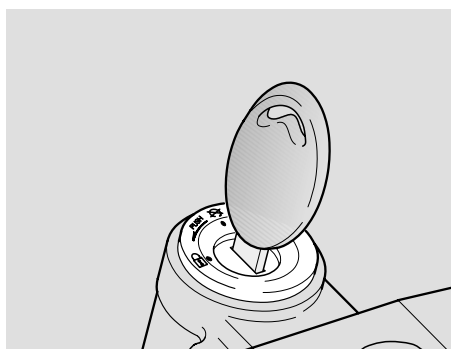
## BULBS

Carefully read p. 59 (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.

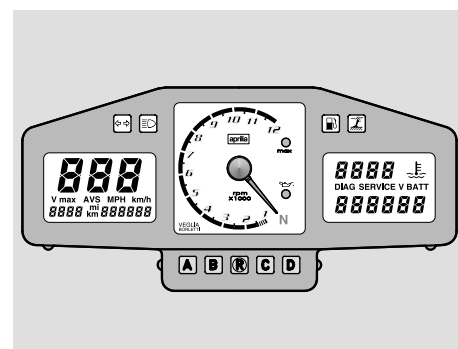
Change the bulb wearing clean gloves or using a clean and dry cloth.

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.

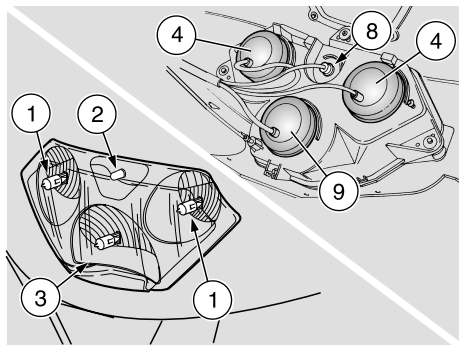
**DO NOT FORCE THE ELECTRIC CABLES.**

**NOTE** Before changing a bulb, check the fuses, see p. 98 (CHANGING THE FUSES).



## CHANGING THE DASHBOARD BULBS

If you need assistance or technical advice, consult your **aprilia** Official Dealer, who can ensure you prompt and accurate servicing.



## CHANGING THE HEADLIGHT BULBS

Carefully read p. 101 (BULBS).

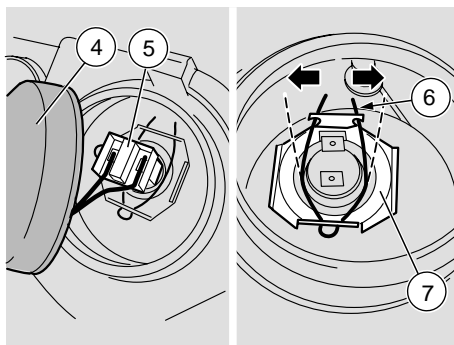
The headlight contains:

- two high beam bulbs (1) (side);
- one parking light bulb (2) (upper);
- one low beam bulb (3) (lower).

The high beam and the low beam bulbs are equal to each other.

If either of them is damaged and no spare bulb is available, it is possible to invert them.

This operation is intended only to make it easier for the rider to go back home or to reach a shop where he can buy a new bulb, but the replacement of the damaged bulb remains indispensable.



To change the bulbs, proceed as follows:

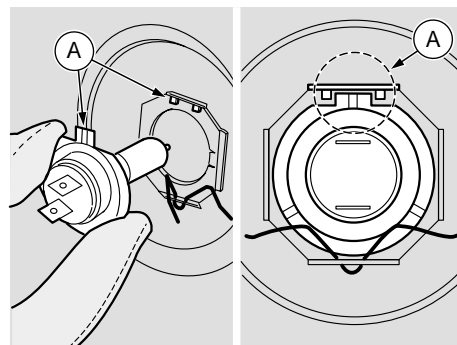
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).

### HIGH BEAM BULBS

**NOTE** Extract the connectors one by one, in such a way as to avoid positioning them wrongly upon reassembly.

If it is necessary to remove all the connectors at the same time, mark them and make sure that you position them correctly upon reassembly.

- ◆ Remove the front part of the fairing, see p. 79 (REMOVING THE FRONT PART OF THE FAIRING).
- ◆ Move the protection element (4) of the bulb to be changed with your hands.



## ⚠ CAUTION

To extract the bulb electric connector, do not pull its wires.

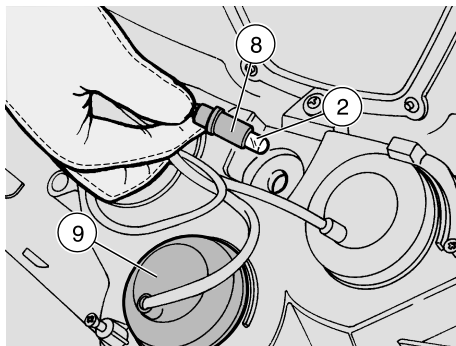
- ◆ Grasp the bulb electric connector (5), pull it and disconnect it from the bulb.
- ◆ Release the two ends of the check spring (6) positioned on the bulb socket (7).
- ◆ Extract the bulb from its seat.

**NOTE** Insert the bulb in the bulb socket, making the respective positioning seats (A) coincide.

- ◆ Correctly install a new bulb of the same type.

**Upon reassembly:**

**NOTE** Put back the protection element (4) with the cable passage facing downwards.



### PARKING LIGHT BULB

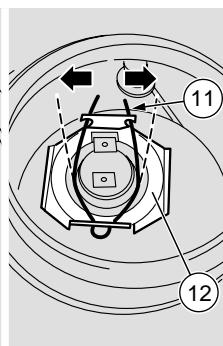
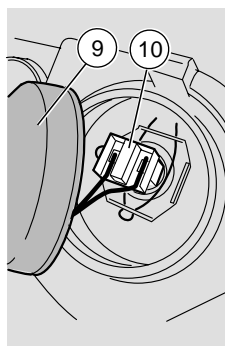
- ◆ Remove the front part of the fairing, see p. 79 (REMOVING THE FRONT PART OF THE FAIRING).

#### **⚠ CAUTION**

To extract the bulb socket, do not pull the electric wires.

- ◆ Grasp the parking light bulb socket (8), pull it and remove it from its seat.
- ◆ Withdraw the bulb (2) and replace it with one of the same type.

**NOTE** Make sure that the bulb is correctly inserted in the bulb socket.



### LOW BEAM BULB

**NOTE** Extract the connectors one by one, in such a way as to avoid positioning them wrongly upon reassembly.

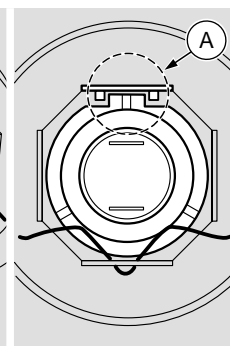
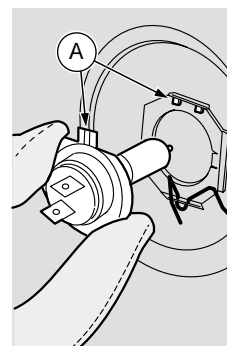
If it is necessary to remove all the connectors at the same time, mark them and make sure that you position them correctly upon reassembly.

- ◆ Remove the front part of the fairing, see p. 79 (REMOVING THE FRONT PART OF THE FAIRING).
- ◆ Move the protection element (9) with your hands.

#### **⚠ CAUTION**

To extract the bulb electric connector, do not pull its wires.

- ◆ Grasp the bulb electric connector (10), pull it and disconnect it from the bulb.



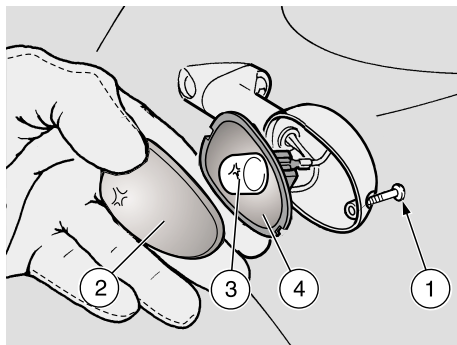
- ◆ Release the two ends of the check spring (11) positioned on the bulb socket (12).
- ◆ Extract the bulb from its seat.

**NOTE** Insert the bulb in the bulb socket, making the respective positioning seats (A) coincide.

- ◆ Correctly install a new bulb of the same type.

**Upon reassembly:**

**NOTE** Put back the protection element (9) with the cable passage facing downwards.



## CHANGING THE FRONT AND REAR DIRECTION INDICATOR BULBS

Carefully read p. 101 (BULBS).

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the screw (1).

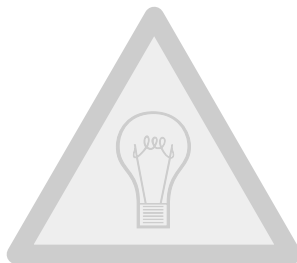
### ⚠ CAUTION

While removing the protection screen, proceed carefully in order not to break the cog.

- ◆ 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.

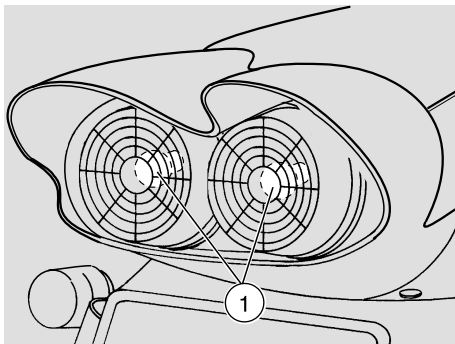
### ⚠ CAUTION

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.

### ⚠ CAUTION

If the bulb socket (4) goes out of its seat, insert it correctly, making the bulb socket opening coincide with the screw seat.



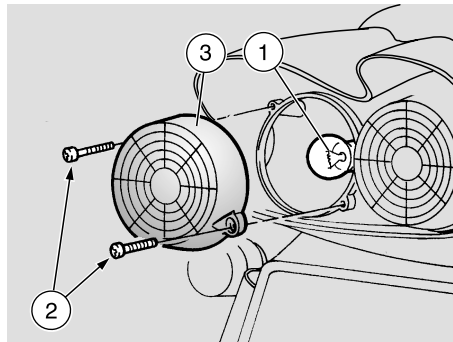
## CHANGING THE REAR LIGHT BULB

Carefully read p. 101 (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. 97 (CHECKING THE SWITCHES).



- ◆ Position the vehicle on the stand, see p. 58 (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.

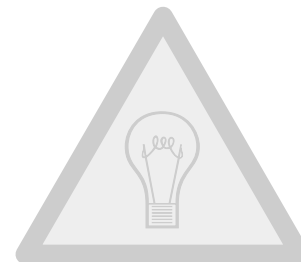
Tighten the screw (2) carefully, without exerting too much pressure, in order to avoid damaging the protection screen.

- ◆ Press the bulb (1) slightly and rotate it anticlockwise.
- ◆ Extract the bulb (1) from its seat.

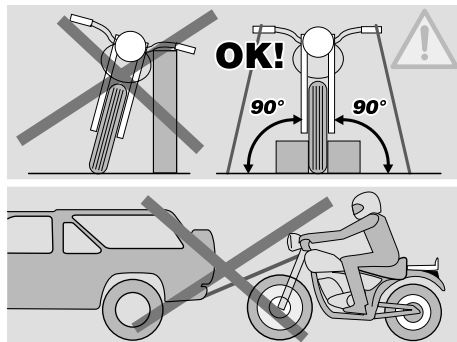
## ⚠ CAUTION

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.



## TRANSPORT

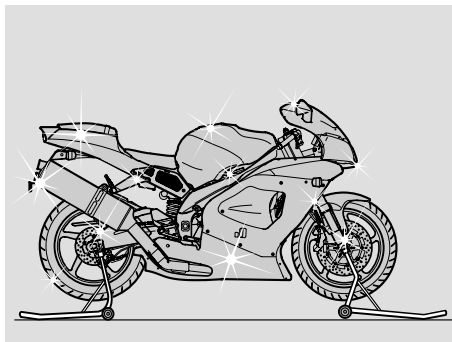


**NOTE** During transport, the vehicle must be kept in vertical position, it must be firmly anchored and the 1st gear must be engaged, in order to avoid any leak of fuel, oil, coolant.

### ⚠ CAUTION

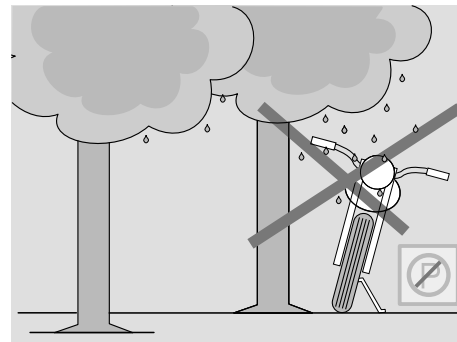
**In case of failure, do not tow the vehicle, but ask for assistance.**

## 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

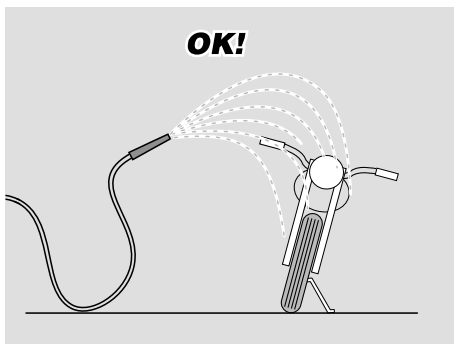
**After the vehicle has been washed, its braking functions could be temporarily impaired because of the presence of water on the grip surfaces.**

**Calculate long braking distances to avoid accidents.**

**Brake repeatedly to restore normal conditions.**

**Carry out the preliminary checking operations, see p. 49 (PRELIMINARY CHECKING OPERATIONS).**



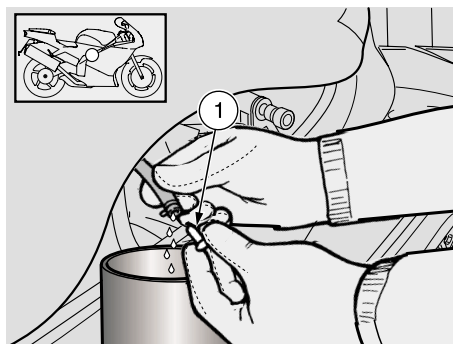


To remove dirt and mud from the painted surfaces use a low- pressure water jet, carefully wet the dirty parts, remove mud and filth with a soft car sponge impregnated with a lot of water and shampoo (2 – 4% parts of shampoo in water). Then rinse with plenty of water and dry with chamois leather.

To clean the outer parts of the engine use a degreaser, brushes and wipers.

#### **After washing the vehicle, always:**

- ◆ 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.**



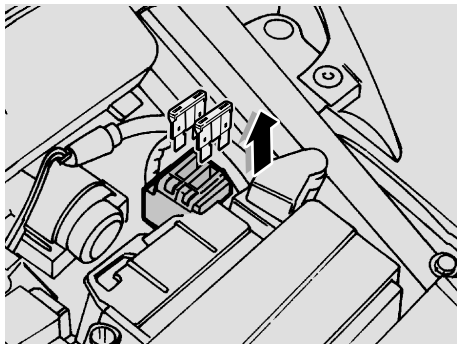
#### **⚠ CAUTION**

**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

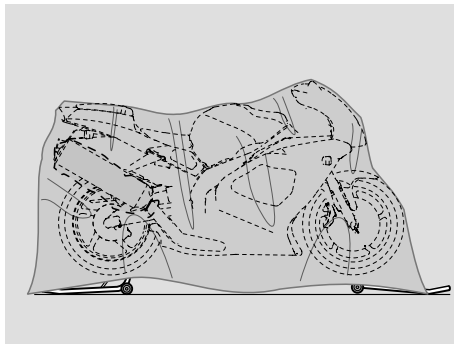
### ⚠ CAUTION

If the vehicle remains unused for more than twenty days, disconnect the 30A fuses, in order to avoid the deterioration of the battery caused by the current consumption due to the multifunction computer.

**NOTE** The removal of the 30A fuses requires the setting to zero of the following functions: digital clock and red line setting. To reset these functions, see p. 20 (MULTIFUNCTION COMPUTER).

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. 94 (REMOVING THE BATTERY) and p. 97 (LONG INACTIVITY OF THE BATTERY).
- ◆ Wash and dry the vehicle, see p. 106 (CLEANING).
- ◆ Polish the painted surfaces with wax.
- ◆ Inflate the tyres, see p. 42 (TYRES).
- ◆ Place the vehicle in an unheated, not-humid room, away from sunlight, with minimum temperature variations.
- ◆ Position and tie a plastic bag on the final pipe of the exhaust silencer, in order to prevent moisture from getting into it.

**NOTE** Position the vehicle on the front **OPT** and rear **OPT** support stands, so that both tyre are raised from the ground.

- ◆ Position the vehicle on the appropriate front support stand, see p. 67 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND m).

- ◆ Position the vehicle on the appropriate rear support stand, see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ Cover the vehicle avoiding the use of plastic or waterproof materials.

## AFTER A PERIOD OF INACTIVITY

**NOTE** Withdraw the plastic bag from the exhaust silencer tailpipe.

- ◆ Uncover and clean the vehicle, see p. 106 (CLEANING).
- ◆ Check the charge of the battery, see p. 95 (RECHARGING THE BATTERY) and install it, see p. 96 (INSTALLING THE BATTERY).
- ◆ Refill the fuel tank, see p. 33 (FUEL).
- ◆ Carry out the preliminary checking operations, see p. 49 (PRELIMINARY CHECKING OPERATIONS).

### ⚠ WARNING

Have a test ride at moderate speed in a low-traffic area.