

# QUASAR 50-100-125-180



aprilia part# 8202427

**use+maintenance**book



First edition: April 2004

Reprint:

Produced and printed by:

**DECA S.r.l.**

Via Risorgimento, 23/1 - Lugo (RA) - Italy

Tel. +39 - 0545 35235

Fax +39 - 0545 32844

E-mail: [deca@decaweb.it](mailto:deca@decaweb.it)

[www.decaweb.it](http://www.decaweb.it)

On behalf of:

**Moto Laverda s.r.l.**

via G. Galilei, 15 - 30033 Noale (VE) - Italy

Tel. +39 - 041 50 79 823

Fax +39 - 041 50 79 720

E-mail: [customer@laverda.it](mailto:customer@laverda.it)

## **SAFETY WARNINGS**

The symbols and warnings used throughout this manual have the following meanings:

 **Safety warning.** This symbol attached to the vehicle or in the manual indicates a potential risk of personal injury. Non-compliance with the indications given in the messages preceded by this symbol may result in major risks for your and other people's safety and for the vehicle!

### **WARNING**

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

### **CAUTION**

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

**CAUTION** The word "CAUTION" in this manual identifies important information or instructions.

## **TECHNICAL INFORMATION**

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

Unless expressly indicated otherwise, reassembly is a reversal of the disassembly procedure.

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

## **WARNINGS - PRECAUTIONS - GENERAL ADVICE**

Before starting the engine, read this manual thoroughly paying special attention to section "SAFE RIDING".

Your and other people's safety largely depends on your reflexes and agility, but there are other key factors, such as your knowledge of the vehicle's operation and condition, as well as of the basic rules of "SAFE RIDING".

Becoming thoroughly familiar with vehicle is essential to mastering safe riding techniques in traffic.

## CAUTION

This manual must be considered as an integral part of the vehicle and must always accompany it, also in the event the vehicle is resold.

**Laverda** has carried out this manual with the maximum attention, in order to supply the user with correct and updated information. However, since **Laverda** constantly improves the design of its products, there may be slight discrepancies between the characteristics of your vehicle and those described in this manual.

For any clarification concerning the information contained in this manual, do not hesitate to contact your **Aprilia** Authorised Dealer.

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

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

All rights of electronic storage, reproduction and total or partial adaptation with any means reserved for all Countries.

## CAUTION

Some countries have statutory emission and noise control regulations in place requiring that motor vehicles undergo periodical inspections.

Users in these countries must:

- contact an **Aprilia** Authorised Dealer to have the non-homologated components replaced with others homologated for use in the country in question;
- have their vehicles inspected at the required intervals.

50 model 50 cu cm

100 model 100 cu cm

125 model 125 cu cm

180 model 180 cu cm

HP “HP” version

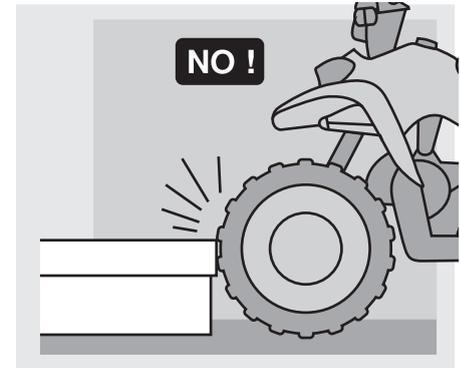
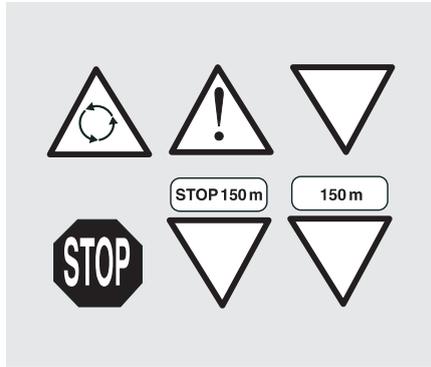
GRIP “GRIP” version

## GENERAL INDEX

<b>SAFETY WARNINGS</b> .....	2	<b>INSTRUCTIONS FOR USE</b> .....	28	<b>TRANSPORT</b> .....	52
<b>TECHNICAL INFORMATION</b> .....	2	PRE-RIDE CHECKS .....	28	<b>CLEANING</b> .....	53
<b>WARNINGS - PRECAUTIONS - GENERAL</b>		PRE-RIDE CHECKS CHART .....	29	LONG PERIODS OF INACTIVITY .....	54
<b>ADVICE</b> .....	2	STARTING .....	30	<b>TECHNICAL DATA</b> .....	55
BASIC SAFETY RULES .....	6	MOVING OFF AND RIDING .....	32	LUBRICANT CHART .....	58
CLOTHING .....	8	RUNNING-IN .....	32	WIRING DIAGRAM .....	60
<b>ARRANGEMENT OF THE MAIN</b>		STOPPING .....	33	KEY TO WIRING DIAGRAM .....	61
<b>ELEMENTS</b> .....	10	PARKING .....	33	WIRING DIAGRAM .....	62
<b>ARRANGEMENT OF THE MAIN ELEMENTS</b>		SUGGESTIONS TO PREVENT THEFT .....	33	KEY TO WIRING DIAGRAM .....	63
<b>HP</b> .....	11	<b>MAINTENANCE</b> .....	34	AUTHORISED DEALERS AND SERVICE	
<b>ARRANGEMENT OF THE MAIN ELEMENTS</b>		SCHEDULED MAINTENANCE CHART .....	35	CENTRES .....	64
<b>GRIP</b> .....	12	IDENTIFICATION DATA .....	37		
<b>LOCATION OF INSTRUMENTS/CONTROLS</b>	13	AIR FILTER 50 100 .....	38		
<b>INDICATORS</b> .....	14	DRIVE CHAIN .....	39		
INSTRUMENTS AND INDICATORS TABLE .....	15	CHECKING AND SERVICING THE			
<b>MULTIFUNCTION COMPUTER</b> .....	16	SUSPENSIONS .....	41		
OPERATION .....	16	ADJUSTING THE THROTTLE TWISTGRIP .....	41		
SETTING THE CLOCK .....	17	ADJUSTING THE BRAKE LEVERS .....	42		
CHANGING THE BATTERY .....	17	IDLING ADJUSTMENT .....	42		
<b>MAIN INDEPENDENT CONTROLS</b> .....	18	SPARK PLUG .....	43		
CONTROLS ON LEFT HANDLEBAR .....	18	BATTERY .....	45		
IGNITION SWITCH .....	18	CHECKING AND CLEANING THE TERMINALS	45		
<b>AUXILIARY EQUIPMENT</b> .....	19	REMOVING THE BATTERY .....	45		
GLOVE/TOOL KIT COMPARTMENT .....	19	CHECKING BATTERY FLUID LEVEL .....	46		
<b>MAIN COMPONENTS</b> .....	20	CHARGING THE BATTERY .....	46		
FUEL .....	20	INSTALLING THE BATTERY .....	47		
FUEL COCK 50 100 .....	21	TRANSMISSION AIR FILTER 50 100 .....	47		
MIXER OIL RESERVOIR 50 100 .....	21	BULBS .....	48		
TYRES .....	22	VERTICAL ADJUSTMENT OF THE HEADLIGHT			
CHECKING/CHANGING TRANSMISSION		BEAM .....	48		
FLUID .....	23	CHANGING THE HEADLIGHT			
CHECKING ENGINE OIL LEVEL 125 180 .....	24	BULB 50 100 .....	49		
CHANGING ENGINE OIL 125 180 .....	25	CHANGING THE HEADLIGHT			
BRAKE FLUID - RECOMMENDATIONS .....	26	BULB 125 180 .....	50		
DISC BRAKES .....	26	CHANGING THE TAIL LIGHT BULB .....	51		
CHECKING BRAKE FLUID LEVEL .....	26	REPLACING THE FRONT AND REAR TURN			
CHECKING THE BRAKE PADS FOR WEAR .....	27	INDICATOR BULBS .....	51		
EXHAUST MUFFLER/EXHAUST SILENCER .....	28	REPLACING THE NUMBER PLATE			
		BULB 100 125 180 .....	51		
		CHANGING A FUSE .....	52		



guida sicura



## BASIC SAFETY RULES

To drive the vehicle, you must satisfy certain legal requirements (driving licence, minimum age limit, psychophysical fitness, insurance, vehicle licence tax, vehicle registration, number plate, etc.).

Begin to familiarise yourself with the vehicle by riding in low traffic areas and/or private ground.

Certain prescribed medicines, alcohol, drugs and psychotropic substances will affect your riding, thereby increasing the risk of an accident.

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

Most road accidents are caused by inexperienced riders.

**NEVER** lend your vehicle to a beginner and make sure any person borrowing your vehicle fills the legal requirements for driving.

Strictly observe all posted signs and national and local road regulations.

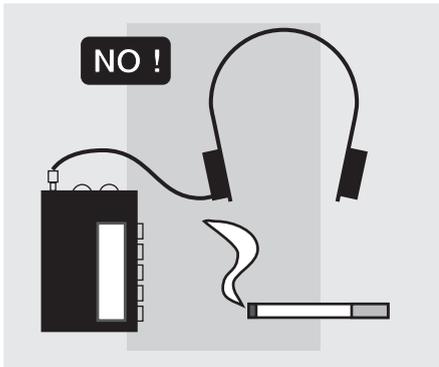
Avoid any sudden or risky manoeuvres that may endanger your and other people's safety (for example: reckless manoeuvres, speeding, etc.), and adjust your riding style to road surface conditions, visibility, etc.

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

## **⚠ WARNING**

**Always hold the handlebars with both hands and keep both feet on the footpegs (or on the rider's footboards), in the correct riding position.**

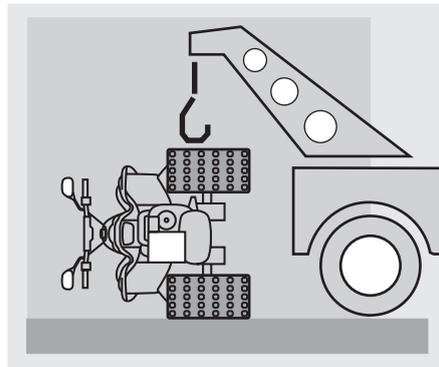
Do not stand up or stretch your limbs while riding.



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

Use only the specified fuels and lubricants indicated in the "LUBRICANT CHART" (page 58) and check engine oil, transmission fluid and fuel levels at regular intervals.

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



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

Remember to report any malfunction to the technicians and/or mechanics to facilitate their work.

Never use the vehicle when the amount of damage it has suffered makes it unsafe to ride.

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

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

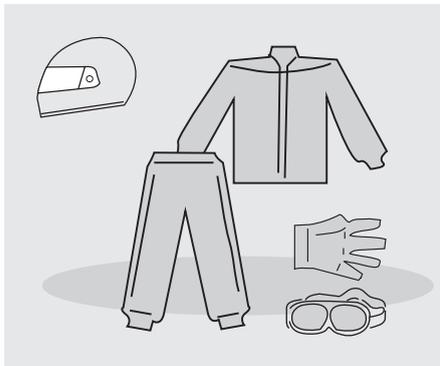


Making any modifications to the vehicle and/or removing the original components can adversely affect vehicle performance and safety or make it illegal to ride.

Observe applicable law and all national and local regulations concerning vehicle equipment.

In particular, avoid any modifications apt to enhance performance or alter the vehicle's original specifications.

Never race with other vehicles.

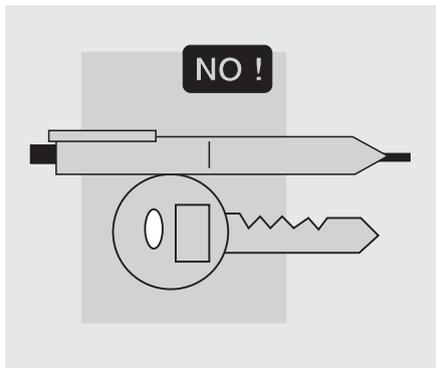


## CLOTHING

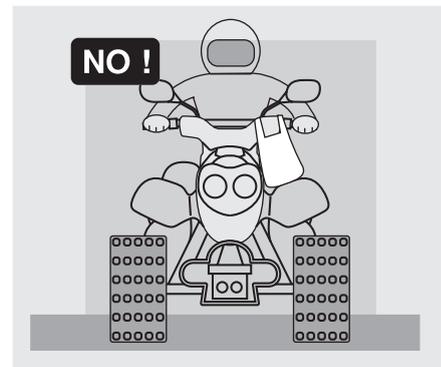
Always wear and fasten your helmet correctly before moving off. Make sure your helmet complies with applicable regulations, is not damaged, is the right size and keep the visor clean.

Wear protective clothing, preferably bright and/or reflective clothing. This will ensure you are easily seen by other road users and reduce the risk of an accident, besides affording improved protection in the event of a fall.

Wear tight-fitting clothing fastened at the wrists and ankles; make sure no strings, belts and ties are hanging loose; make sure no items of clothing or other objects can distract you or become entangled with moving parts or with the handlebars.



Do not ride with sharp or pointed objects in your pockets as they might cause injury in the event of a fall (this includes keys, pens, glass vials, etc. - note that the same applies to your passenger).

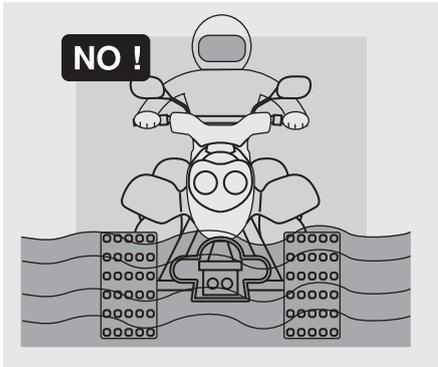


Avoid fixing bulky, heavy and/or dangerous objects to the handlebars, mudguards and forks - this could slow down the vehicle's response in turns and would inevitably affect handling.

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

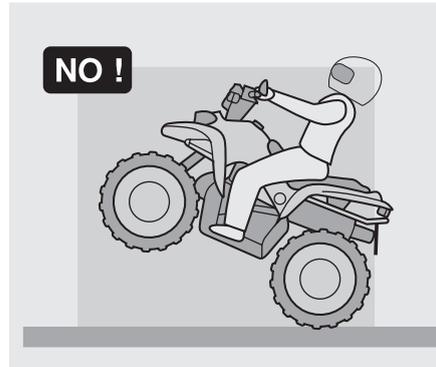
Do not exceed the maximum load capacity of each luggage rack.

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



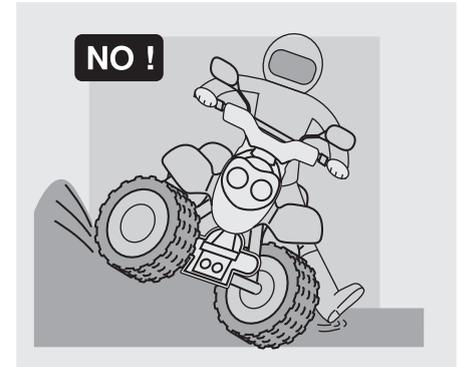
Never use the vehicle in water deeper than 10 cm.

After having used the vehicle in salt water, it is necessary to wash it with fresh water.



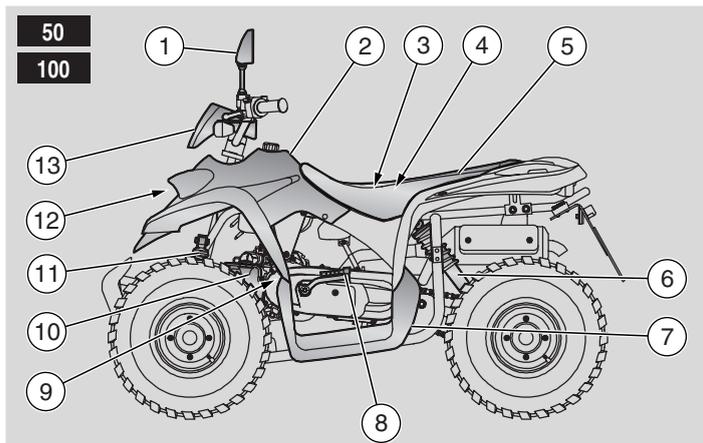
Never show off without respecting the safety features.

Never unbalance the weight of your body so to avoid that vehicle takes unusual positions.



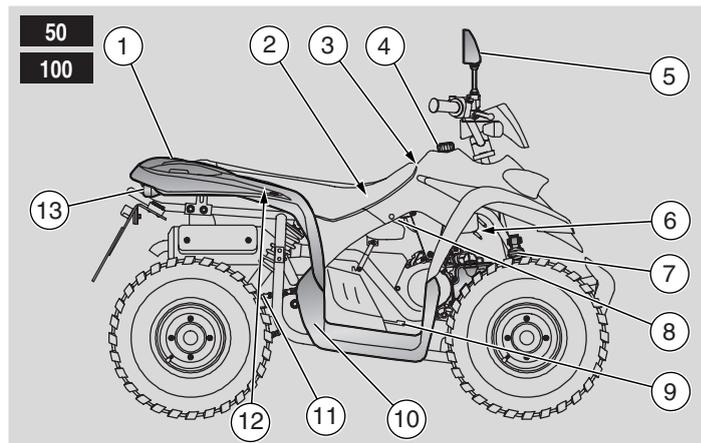
The vehicle should always be ridden following the safety rules indicated in this manual, at any time (riding uphill, downhill, turning, etc.) and with any surface conditions.

## ARRANGEMENT OF THE MAIN ELEMENTS



### KEY

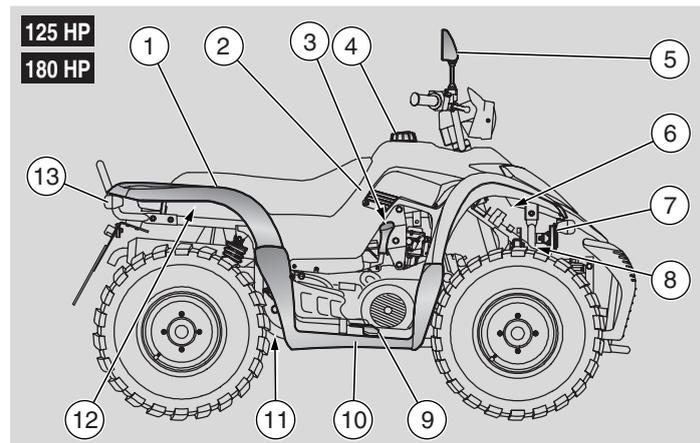
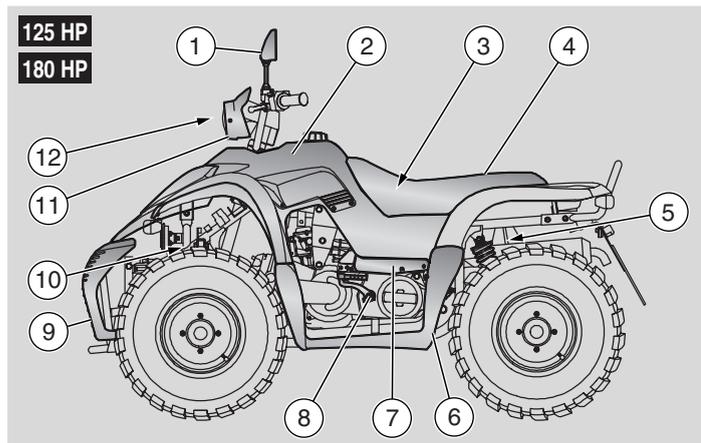
- |                            |                           |
|----------------------------|---------------------------|
| 1) Left rear-view mirror   | 9) Air filter             |
| 2) Front shield            | 10) Left front suspension |
| 3) Battery                 | 11) Headlight             |
| 4) Main fuse carrier       | 12) Instrument holder     |
| 5) Seat                    |                           |
| 6) Rear shock absorber     |                           |
| 7) Left footrest           |                           |
| 8) Transmission air filter |                           |



### KEY

- |                           |   |
|---------------------------|---|
| 1) Rear shield            | 9) Front + rear brake pedal (100 cc only) |
| 2) Mixer oil filler plug  | 10) Right footrest                        |
| 3) Fuel tank              | 11) Drive chain                           |
| 4) Fuel tank filler plug  | 12) Glove/tool kit compartment            |
| 5) Right rear-view mirror | 13) Tail light                            |
| 6) Right footrest         |   |
| 7) Warning horn           |   |
| 8) Fuel cock              |   |

## ARRANGEMENT OF THE MAIN ELEMENTS HP



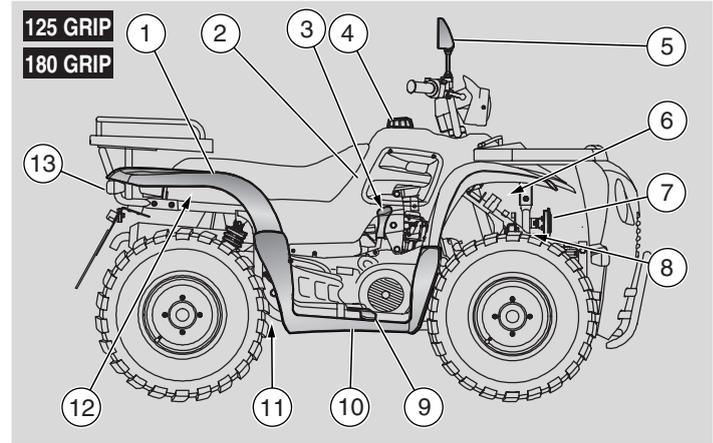
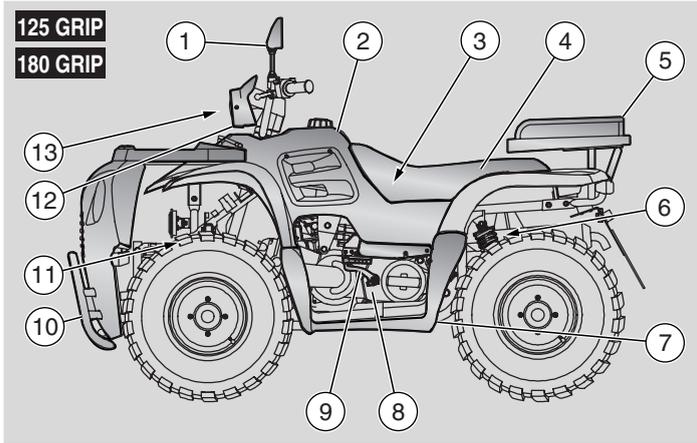
### KEY

- |                          |                                       |
|--------------------------|---------------------------------------|
| 1) Left rear-view mirror | 10) Left front suspension             |
| 2) Front shield          | 11) Headlight mount/Instrument holder |
| 3) Battery, main fuse    | 12) Headlight                         |
| 4) Seat                  |                                       |
| 5) Rear shock absorber   |                                       |
| 6) Left footrest         |                                       |
| 7) Air filter            |                                       |
| 8) Kick start lever      |                                       |
| 9) Front protection      |                                       |

### KEY

- |                           |                                |
|---------------------------|--------------------------------|
| 1) Rear shield            | 9) Front + rear brake pedal    |
| 2) Fuel tank              | 10) Right footrest             |
| 3) Gear change lever      | 11) Drive chain                |
| 4) Fuel tank filler plug  | 12) Glove/tool kit compartment |
| 5) Right rear-view mirror | 13) Tail light                 |
| 6) Starting relay         |                                |
| 7) Warning horn           |                                |
| 8) Right front suspension |                                |

## ARRANGEMENT OF THE MAIN ELEMENTS GRIP



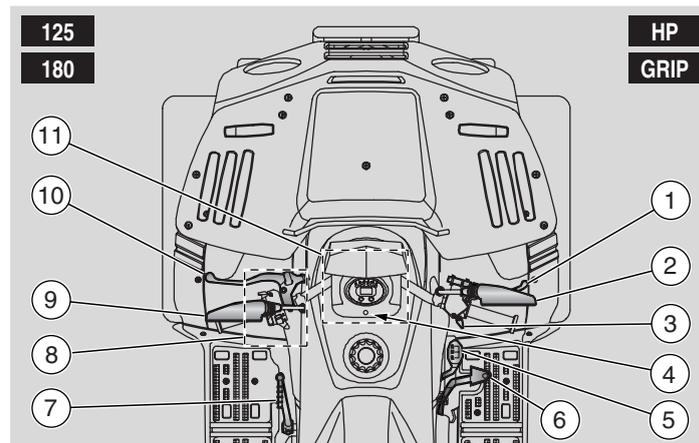
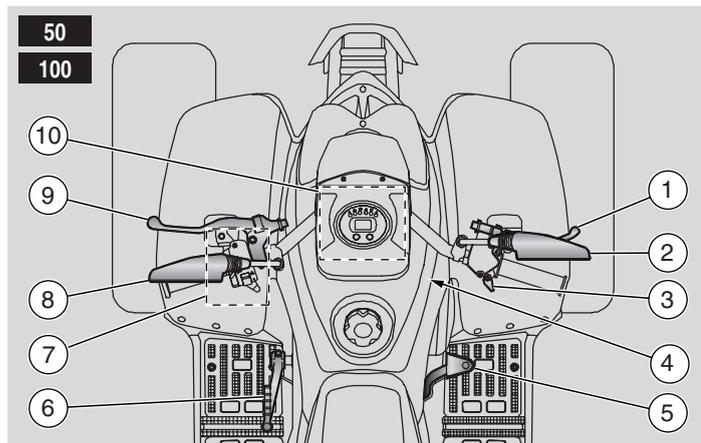
### KEY

- |                          |                                       |
|--------------------------|---------------------------------------|
| 1) Left rear-view mirror | 10) Front protection                  |
| 2) Front shield          | 11) Left front suspension             |
| 3) Battery, main fuse    | 12) Headlight mount/Instrument holder |
| 4) Seat                  | 13) Headlight                         |
| 5) Rear luggage rack     |                                       |
| 6) Rear shock absorber   |                                       |
| 7) Left footrest         |                                       |
| 8) Air filter            |                                       |
| 9) Kick start lever      |                                       |

### KEY

- |                           |                                |
|---------------------------|--------------------------------|
| 1) Rear shield            | 9) Front + rear brake pedal    |
| 2) Fuel tank              | 10) Right footrest             |
| 3) Gear change lever      | 11) Drive chain                |
| 4) Fuel tank filler plug  | 12) Glove/tool kit compartment |
| 5) Right rear-view mirror | 13) Tail light                 |
| 6) Starting relay         |                                |
| 7) Horn                   |                                |
| 8) Right front suspension |                                |

## LOCATION OF INSTRUMENTS/CONTROLS



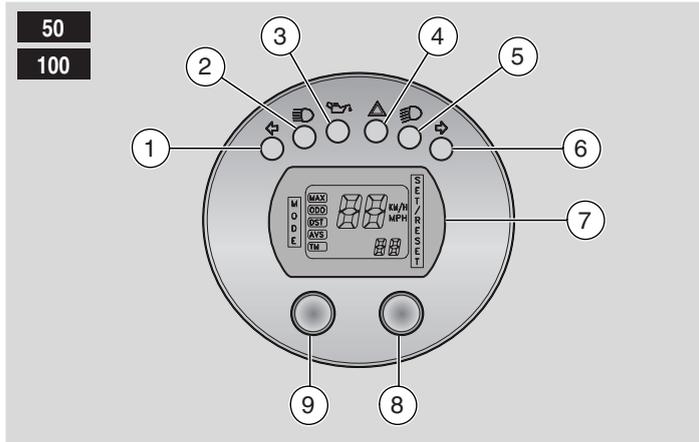
### KEY 50 100

- |  |                            |
|--|----------------------------|
| 1) Front brake lever                                     | 8) Left rear-view mirror   |
| 2) Right rear-view mirror                                | 9) Rear brake lever        |
| 3) Throttle control                                      | 10) Multifunction computer |
| 4) Ignition switch with key (○ - ☒)                      |                            |
| 5) Front + rear brake pedal (100 cc only)                |                            |
| 6) Kick start lever                                      |                            |
| 7) Electrical controls on the left side of the handlebar |                            |

### KEY 125 180

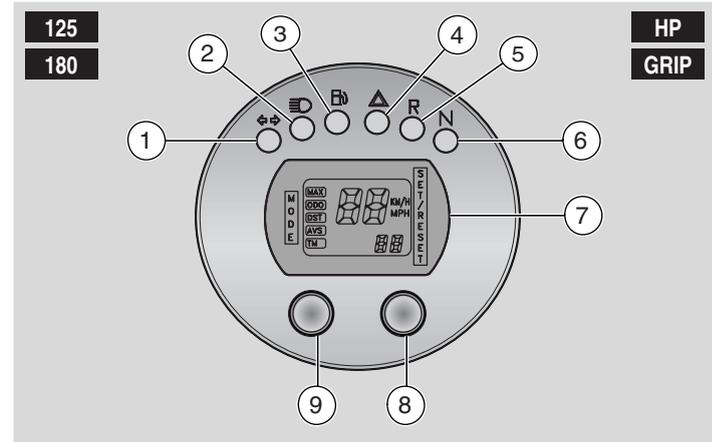
- |  |                            |
|--|----------------------------|
| 1) Front brake lever                                     | 8) Left rear-view mirror   |
| 2) Right rear-view mirror                                | 9) Rear brake lever        |
| 3) Throttle control                                      | 10) Multifunction computer |
| 4) Ignition switch with key (○ - ☒)                      |                            |
| 5) Gear selector lever                                   |                            |
| 6) Front + rear brake pedal<br>Kick start lever          |                            |
| 7) Electrical controls on the left side of the handlebar |                            |

# INDICATORS



## KEY 50 100

- |   |   |
|---|---|
| 1) Left direction indicator warning light (↔) | 6) Right turn indicator warning light (⇄) |
| 2) High beam warning light (≡D)               | 7) Multifunction computer                 |
| 3) Mixer reserve light (☛)                    | 8) Key "SET/RESET"                        |
| 4) Emergency flasher light (Δ)                | 9) Key "MODE"                             |
| 5) Low beam light (≡D)                        |   |



## KEY 125 180

- |                                     |                                |
|-------------------------------------|--------------------------------|
| 1) Turn indicator light (↔⇄)        | 6) Neutral indicator light (↯) |
| 2) High beam warning light (≡D)     | 7) Multifunction computer      |
| 3) Fuel reserve light (☛)           | 8) Key "SET/RESET"             |
| 4) Emergency flasher light (Δ)      | 9) Key "MODE"                  |
| 5) Reverse gear indicator light (R) |                                |

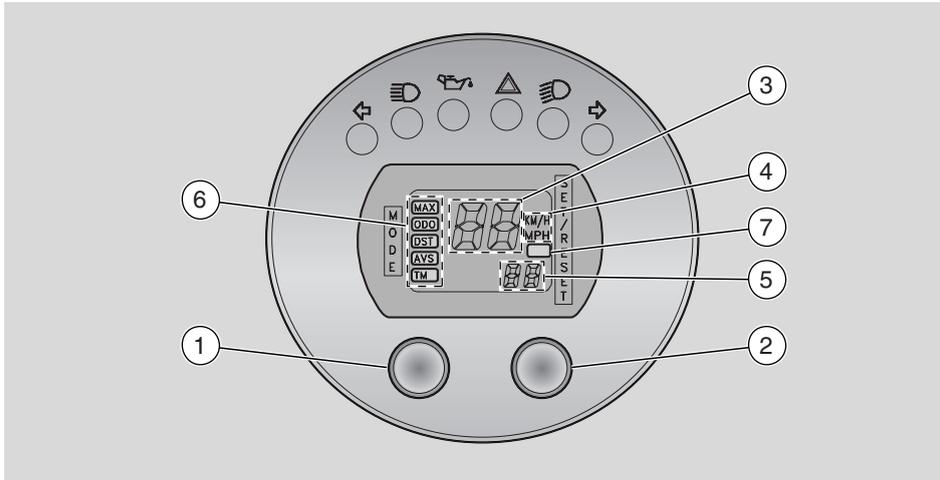
## INSTRUMENTS AND INDICATORS TABLE

### ⚠ CAUTION

Turn the key to ON “”: all the warning lights come on for about 3 seconds to test their operation.

Description		Function
50 100	Left direction indicator warning light (  )	It blinks when the left direction indicator is on.
	High beam warning light (  )	It comes on when the high beam is on.
	Mixer reserve light (  )	It comes on when the mixer oil level is low (reserve); top up as soon as possible, see page 21 (MIXER OIL RESERVOIR).
	Emergency flasher light (  )	It flashes when the emergency flashers (hazard) are on.
	Low beam light (  )	It comes on when the low beam is on.
	Right turn indicator warning light (  )	It blinks when the right direction indicator is on.
125 180	Turn indicator warning light (  )	It comes on when the right or left direction indicator is on.
	High beam warning light (  )	It comes on when the high beam is on.
	Fuel reserve light (  )	It comes on when the fuel level is low (reserve); refuel as soon as possible, see page 20 (FUEL).
	Emergency flasher light (  )	It flashes when the emergency flashers (hazard) are on.
	Reverse gear indicator light (  )	It indicates that the reverse gear is engaged.
	Neutral indicator light (  )	It indicates that the gearbox is in neutral.

## MULTIFUNCTION COMPUTER



### KEY

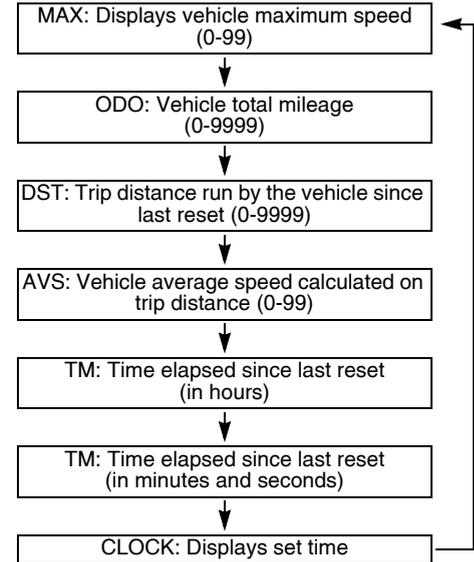
- 1) Push-button "MODE"
- 2) Push-button "SET/RESET"
- 3) Speed display
- 4) Speed unit of measurement indicators
- 5) Additional functions display
- 6) Additional functions indicators
- 7) Clock function indicator

### OPERATION

#### ⚠ CAUTION

The multifunction computer is switched on automatically as soon as the vehicle moves and turns off automatically when the vehicle is stopped for more than 5 minutes. It is possible to turn the multifunction computer on when the vehicle is stopped by pressing the key SET/RESET (2) and then holding down key MODE (1) for more than 3 seconds.

- ◆ On speed Display (3) is shown vehicle instantaneous speed (0-99)
- ◆ On Additional Functions Display (5) are shown accessory functions that can be displayed one after the other by pressing push-button MODE (1)



- ◆ MAX, DST, AVS and TM values can be reset by pressing the key SET/RESET (2) and then holding down key MODE (1) for more than 3 seconds.

- ◆ DST value can be set as Distance of the daily trip (indicated on the display by DST indicator and Clock indicator at the same time).

When this function is activated, the daily Trip distance is automatically reset every time the date changes (at 00.00 of set time).

### CAUTION

**It is possible to manually reset this value only by disabling this function.**

- ◆ To enable the function, press MODE (1) until DST function is displayed.
- ◆ Press the key SET/RESET (2) and then hold down the key MODE (1) for more than three seconds; the DST indicator starts flashing.
- ◆ Press the key SET/RESET (2) to switch from Trip distance function to Daily trip distance function and vice versa.
- ◆ Press the push key MODE (1) to confirm.

## SETTING THE CLOCK

- ◆ Press MODE (1) until the Clock function is displayed.
- ◆ Press the key SET/RESET (2) and then hold down the key MODE (1) for more than three seconds; the minutes indicator starts flashing.
- ◆ Press the key SET/RESET (2) to select the correct minutes value.
- ◆ Press the key MODE (1), hour indicator will start flashing.
- ◆ Press the key SET/RESET (2) to select the correct hour value.
- ◆ Press the key MODE (1) to confirm.

## CHANGING THE BATTERY

### CAUTION

**Removing the battery will reset all values stored in the multifunction computer.**

To change the battery, use a coin to open multifunction computer rear cover and change the battery with one featuring the same rating (3 volts CR2032).

When battery is replaced, the display will show KM/H indication; switch to MPH using the key SET/RESET (2).

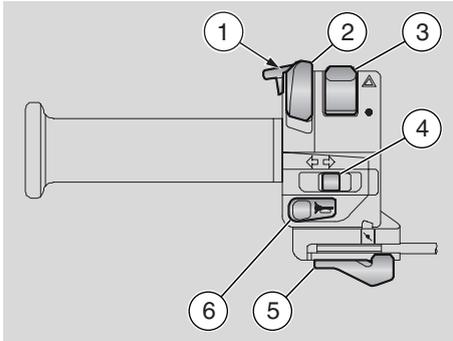
- ◆ Press the key MODE (1) to confirm.

At the bottom on the right side of the display is shown 216 (measure of the tyre circumference), use the key SET/RESET (2) to adjust as per the following table:

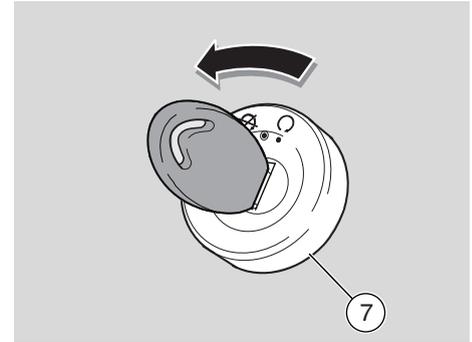
Model	Value
50	142
100	143
125-180 HP	168
125-180 GRIP	175

- ◆ Press the key MODE (1) to confirm. Now the multifunction computer will prompt you to set the clock. Proceed as indicated under SETTING THE CLOCK.

## MAIN INDEPENDENT CONTROLS



- 3) **EMERGENCY FLASHER BUTTON** (▲)  
Press this button (marked with relevant symbol) to activate all turn indicators at the same time.
- 4) **TURN INDICATOR SWITCH** (←→)  
To indicate the turn to the left, move the switch to the left; to indicate the turn to the right, move the switch to the right. Push in to cancel the indicators after turning.
- 5) **CHOKE LEVER** (↵)  
The choke device to start the engine from cold is operated by rotating the lever "↵" leftwards.  
To disconnect the choke device, set the lever (↵) back to its initial position.
- 6) **HORN BUTTON** (🔊)  
Press this button to operate the horn.



### CONTROLS ON LEFT HANDLEBAR

**CAUTION** The electric components will only work when the ignition switch is in position "O".

- 1) **STARTER BUTTON** (🔌)  
Press the starter button "🔌" to operate the starter motor that turns the engine over.
- 2) **DIMMER SWITCH** (🔦 - 🔦)  
Take switch to "🔦" position to switch on parking lights/low beam.  
Take switch to "🔦" position to switch on the high beam.

**CAUTION** The dimmer switch is enabled only when engine is running.

### IGNITION SWITCH

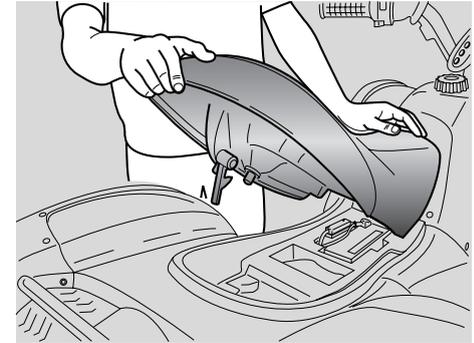
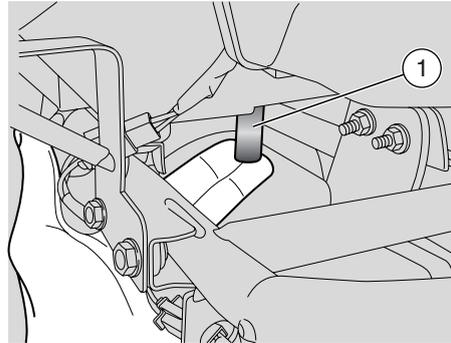
The ignition switch (7) for **50** **100** can be found on front shield right-hand side. For **125** **180** can be found on the instrument panel under the multifunction computer.

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

**CAUTION** Store the spare key in a safe place (other than the vehicle).

Position	Function	Key removal
	Neither the engine, nor the lights will operate.	It is possible to remove the key.
	The engine can be started. The lights turn on automatically as soon as the engine starts.	It is not possible to remove the key.

## AUXILIARY EQUIPMENT



### GLOVE/TOOL KIT COMPARTMENT

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

- ◆ Working from the bottom side of the rear shield, release the seat lock (1) by pulling the seat rearward and raise it.

To lock the seat, proceed as follows:

- ◆ Fit the lower front fasteners under the relevant fittings onto the fairing.
- ◆ Position the seat unit in its seat and press until the latch clicks in place.

### WARNING

Before riding, make sure that the seat is properly positioned and secured firmly.

## MAIN COMPONENTS

### FUEL

#### **⚠ WARNING**

The fuel used in internal combustion engines is highly flammable and can become explosive under particular conditions.

It is important to refuel and service the vehicle in a well-ventilated area, with the engine off. Do not smoke while refuelling or near fuel vapours, in any case avoid contact with naked flames, sparks and any other heat source or source of ignition to prevent fires or explosion.

Avoid spilling fuel, as it may ignite when in contact with hot engine parts.

In the event of accidental spillage, make sure that the area has completely dried before starting the engine.

Never fill the tank to the rim, as fuel expands from heat and when left under direct sunlight. Tighten the filler plug securely after refuelling.

Avoid contact with skin, do not inhale fuel vapours; do not swallow fuel or transfer it between different receptacles using a hose.

**DO NOT RELEASE FUEL INTO THE ENVIRONMENT.**

**KEEP AWAY FROM CHILDREN.**

Use only premium-grade unleaded fuel with a minimum octane rating of 95 (RON) and 85 (MON).

**To refuel, proceed as follows:**

- ◆ Unscrew and remove the tank plug (1).

FUEL TANK CAPACITY (reserve included):

125 180 8 ℓ

50 100 5 ℓ

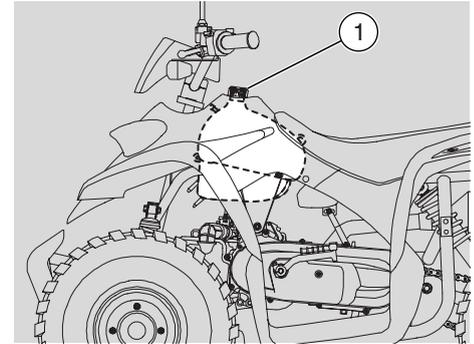
FUEL RESERVE:

125 180 1.5 ℓ

50 100 0.8 ℓ

#### **⚠ CAUTION**

Do not add any additives or other substances to the fuel. If you use a funnel or other tools, make sure that they are perfectly clean.



#### **⚠ WARNING**

Do not fill the tank up to the rim. Fuel level must always remain below the lower edge of the filler neck.

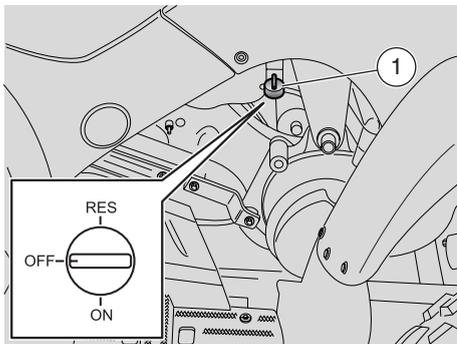
- ◆ Refuel.

**After refuelling:**

- ◆ Fully screw the filler plug (1).

#### **⚠ WARNING**

Make sure the plug is firmly closed.



## FUEL COCK 50 100

The fuel system is fitted with a cock that can be closed when the vehicle is not being used. The fuel cock (1) is on the vehicle right-hand side and can be positioned in three positions:

### ON

Position it to "ON" to let fuel flow from the fuel tank to the carburettor. Set the cock to this position during standard vehicle use.

### OFF

Position it to "OFF" to prevent fuel from flowing out of the tank. Set the cock to this position when the vehicle is not being used.

### RES

Position it to "RES" to let fuel flow from the tank reserve area to the carburettor.

Set the cock to this position when the fuel is low (reserve).

**CAUTION** When fuel reserve is being used, refuel as soon as possible.

**CAUTION** It is necessary to open the fuel cock before starting the vehicle and close it just after use.

## MIXER OIL RESERVOIR 50 100

This vehicle features a separated mixer allowing fuel to be mixed with oil, for engine lubrication, see page 58 (LUBRICANT CHART).

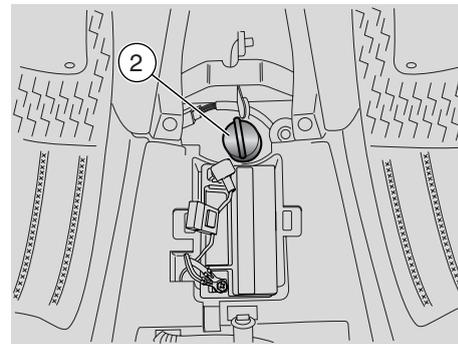
The mixer reserve light "⚡" positioned on the instrument panel, indicates the reserve of the mixer oil, see page 14 (INDICATORS).

### Top up mixer oil as follows:

- ◆ Raise the seat, see page 19 (GLOVE/TOOL KIT COMPARTMENT).
- ◆ Remove the cap (2).

## ⚠ WARNING

It is necessary to check and top up, if needed, mixer oil before every trip.



## ⚠ WARNING

Should you run out of mixer oil (empty reservoir), contact the nearest **Aprilia** Authorised Dealer that shall bleed the system.

This operation is necessary because engine might be damaged if running with air in the mixer oil system.

## ⚠ CAUTION

Wash your hands carefully after handling oil.

Do not dispose of oil in the environment.

**KEEP AWAY FROM CHILDREN.**

## TYRES

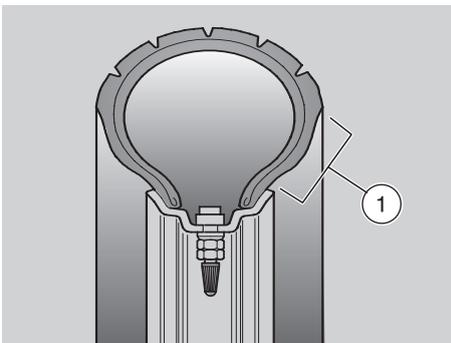
This vehicle is equipped with tubeless tyres.

### CAUTION

Perform maintenance operations more frequently than the indicated intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

### ⚠ WARNING

Check the tyre inflation pressure at room temperature before every ride. Measuring pressure on hot tyres will lead to inaccurate measurement. Overinflated tyres will not absorb bumps when riding on rough road surfaces and resulting vibration is transferred through the handlebar, giving a harsh ride and reducing tyre grip especially during cornering. Conversely, underinflation will put more stress on the sidewalls (1) and the tyre may slip on the rim or even come off the rim, leading to loss of control. The tyres could come off the rims under harsh braking. An underinflated tyre will put the tyre in contact with the rim thus cutting the tyre surface. After the first two weeks and then every month check tyre condition. Finally, the vehicle could skid during cornering.



### ⚠ WARNING

Inspect tyre surface condition and check for wear, as worn tyres lead to poor road holding and handling. Some of the tyres approved for this vehicle are equipped with wear indicators. There are several kinds of wear indicators. For more information on how to check the tyres for wear, contact your Dealer. Visually inspect the tyres for wear and have them changed if worn. Have the wheels balanced after each tyre repair.

### ⚠ WARNING

Use tyres of the specified type and model recommended by the manufacturer. Using other than specified tyres may adversely affect handling.

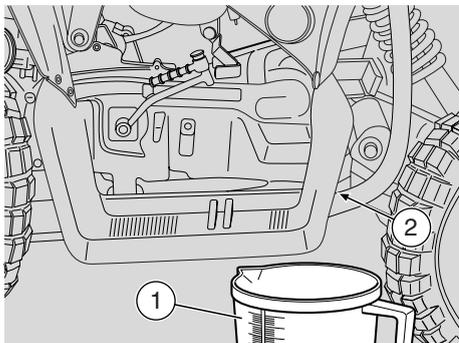
Do not install tube tyres on tubeless tyre rims or vice versa.

Always check that the caps are in place on the valves, or the tyres may deflate suddenly.

Tyre replacement and repair, and wheel servicing and balancing are delicate operations that should be carried out using adequate tools and are best left to experienced mechanics.

Have your tyres and wheels serviced at an **Aprilia** Authorised Dealer or a specialised tyre repairer.

New tyres may be coated with an oily film: ride carefully until covering several kilometres. Old tyres, even if not completely worn down, may become hard and provide poor grip. If so, have them replaced.



## CHECKING/CHANGING TRANSMISSION FLUID

### ⚠ CAUTION

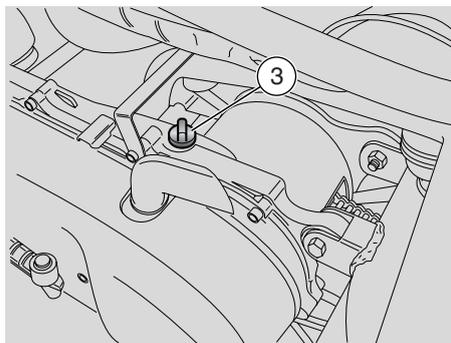
In case of oil leakage or malfunctions, contact an **Aprilia** Authorised Dealer.

Do not dispose of oil in the environment.

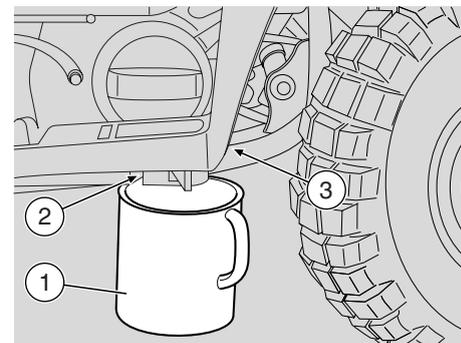
Dispose of engine oil - stored in a sealed container - through the nearest waste oil reclamation firm or through the supplier.

Carefully read page 34 (MAINTENANCE)

- ◆ Ride for a few kilometres until engine reaches the operating temperature, then stop the engine.



- ◆ Place a graduated container (1) holding at least 200 cu cm under the drain plug (2).
- ◆ loosen oil filler plug (3) and drain plug (2).
- ◆ Let oil flow out of the sump.
- ◆ If checking oil level, measure the quantity of oil that flows out. If lower than required, top up with the necessary oil, see page 58 (LUBRICANT CHART).
- ◆ If changing the oil, prepare the suitable oil quantity in a graduated container, see page 58 (LUBRICANT CHART).



- ◆ Tighten drain plug (2) and pour oil through filler plug (3).
- ◆ Tighten the filler plug (3).

### ⚠ CAUTION

Carefully tighten filler and drain plugs and ensure oil does not leak out.

Periodically check for leaks at the casing cover gasket.

Do not use the vehicle with insufficient lubrication or with contaminated or unsuitable lubricants, since this would cause early wear of the moving parts and may also cause irreparable failures.



## CHECKING ENGINE OIL LEVEL

125 180

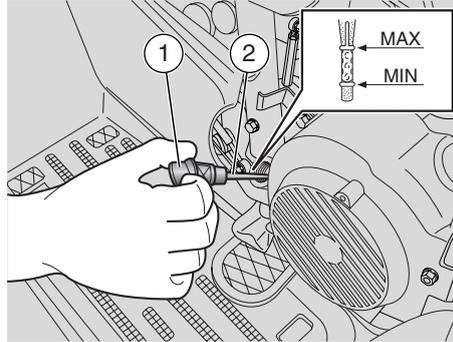
### ⚠ CAUTION

In case of oil leakage or malfunctions, contact an **Aprilia** Authorised Dealer.

Do not dispose of oil in the environment.

Check engine oil level as follows:

- ◆ Ride for a few kilometres until engine reaches the operating temperature, then stop the engine.



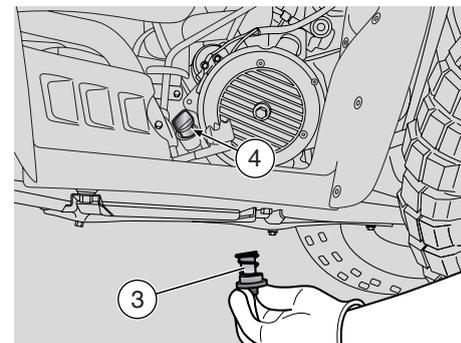
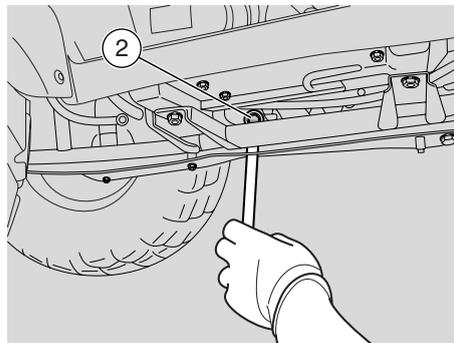
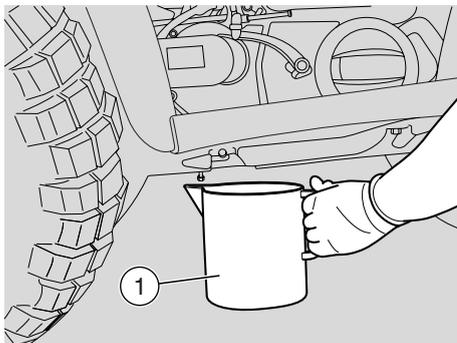
- ◆ Stop the vehicle for a few minutes to allow oil to settle.
- ◆ Loosen filler plug (1) and clean the rod (2) fixed to the filler plug.
- ◆ Completely tighten the filler plug (1).
- ◆ Loosen the filler plug (1) and slide out the rod (2).
- ◆ Check that oil level measured with the rod is between MIN and MAX (as shown).
- ◆ Should the level be lower than MIN notch, top up as required, see page 58 (LUBRICANT CHART)
- ◆ Tighten the filler plug (1).

### ⚠ CAUTION

Carefully tighten filler and drain plugs and ensure oil does not leak out.

Periodically check for leaks at the casing cover gasket.

Do not use the vehicle with insufficient lubrication or with contaminated or unsuitable lubricants, since this would cause early wear of the moving parts and may also cause irreparable failures.



## CHANGING ENGINE OIL 125 180

### **⚠ CAUTION**

In case of oil leakage or malfunctions, contact an **Aprilia** Authorised Dealer.

Do not dispose of oil in the environment.

Dispose of engine oil - stored in a sealed container - through the nearest waste oil reclamation firm or through the supplier.

Carefully read **page 34 (MAINTENANCE)**

To change engine oil:

- ◆ Ride for a few kilometres until engine reaches the operating temperature, then stop the engine.
- ◆ Position a graduated container (1), under the drain plug (2).
- ◆ Loosen oil filler plug (4) and drain plug (2).
- ◆ Let oil flow out of the sump.
- ◆ Loosen oil filter (3) and carefully clean it.
- ◆ Refit the filter and tighten fully.
- ◆ Tighten drain plug (2) and pour recommended oil into filler plug (4), see page 58 (LUBRICANT CHART).
- ◆ Tighten the filler plug.

### **⚠ CAUTION**

**Carefully tighten filler and drain plugs and ensure oil does not leak out.**

**Periodically check for leaks at the casing cover gasket.**

**Do not use the vehicle with insufficient lubrication or with contaminated or unsuitable lubricants, since this would cause early wear of the moving parts and may also cause irreparable failures.**

## BRAKE FLUID - recommendations

### CAUTION

This vehicle fits rear disc brake.

#### ⚠ WARNING

Sudden changes in brake lever play or a spongy feel of the lever may indicate problems with the hydraulic system. If in doubt about the proper operation of the clutch or if you are not able to perform routine checks, contact an **Aprilia** Authorised Dealer.

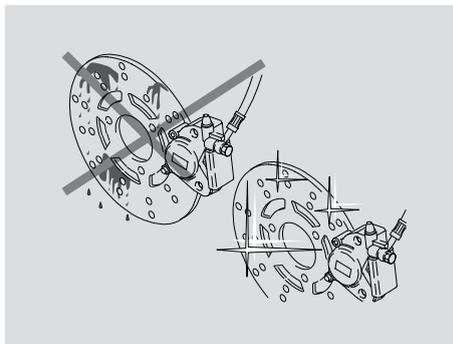
#### ⚠ WARNING

Pay special attention to the brake disc and friction material, making sure that they are neither dirty nor oily, especially after maintenance operations or inspections.

Make sure the brake hose is not twisted or worn.

**KEEP AWAY FROM CHILDREN.**

**DO NOT RELEASE INTO THE ENVIRONMENT.**



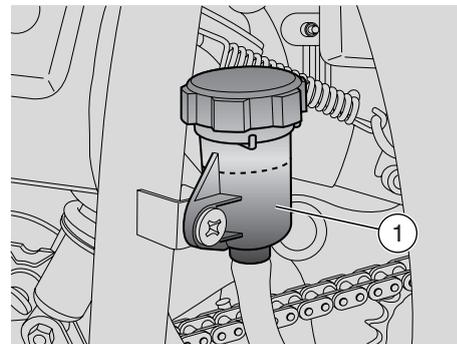
## DISC BRAKES

#### ⚠ WARNING

The brakes are critical to your safety and must always be kept in sleek running order. Check the brakes before each ride.

A dirty disc will soil the pads, leading to loss of braking efficiency. Dirty pads must be replaced, while dirty discs must be cleaned with a high-quality degreaser.

Have brake fluid changed at an **Aprilia** Authorised Dealer every two years.



## CHECKING BRAKE FLUID LEVEL

#### ⚠ CAUTION

Fluid reservoir (1) is under rear right wheelhouse.

### CAUTION

Position the vehicle on firm and flat ground.

◆ Make sure that the fluid contained in the reservoir exceeds the "MIN" mark stamped on the reservoir.

MIN = minimum level.

#### ⚠ WARNING

Do not use the vehicle if the braking system is leaking fluid.

#### ⚠ CAUTION

Do not use the vehicle if the fluid is below the "MIN" mark.

### **⚠ CAUTION**

**Brake fluid level decreases as the brake pads wear down.**

Should the level be too low:

- ◆ Check the brake discs and pads for wear, see page 27 (CHECKING THE BRAKE PADS FOR WEAR)

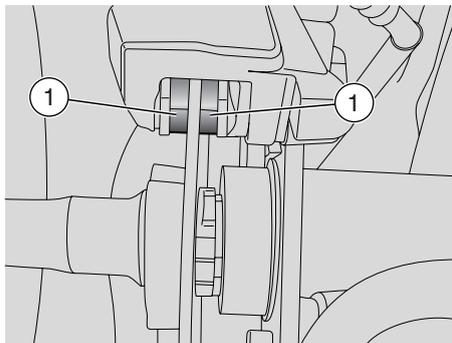
If the pads and/or the disc do not need replacing:

- ◆ Contact an **Aprilia** Authorised Dealer that will top up the fluid.

### **⚠ WARNING**

**Check the brake for proper operation.**

**When the brake lever has exceeding travel or if you notice a loss of braking, contact an **Aprilia** Authorised Dealer. The braking system may need bleeding.**



### **CHECKING THE BRAKE PADS FOR WEAR**

Carefully read page 26 (BRAKE FLUID - recommendations), page 26 (DISC BRAKES) and page 34 (MAINTENANCE).

Periodically check brake pad wear. The rate at which brake pads will wear depends on vehicle usage, riding style and road surface condition.

Outlined below is a quick brake pad inspection procedure:

- ◆ Visually check between brake disc and pads, check both pads (1) looking from the bottom at the rear end.
- ◆ Should friction material (of even one pad only) be worn down to 1.5 mm of thickness, have both pads replaced.

### **⚠ WARNING**

**If brake pads were allowed to wear down until uncovering the metal substrate, metal-to-metal contact with the brake disc would lead to rattle and the brake calliper sparking; this would result in loss of braking and brake disc damage, causing a dangerous riding condition.**

**Contact an **Aprilia** Authorised Dealer for the replacement.**

## EXHAUST MUFFLER/EXHAUST SILENCER

### ⚠ WARNING

Tampering with the noise control system is prohibited.

Owners are warned that the law may forbid (depending on the country):

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

Check the exhaust muffler/silencer and the silencer pipes, making sure that they show no traces of damages or holes and that the exhaust system is operating properly.

If the exhaust system noise increases, contact an **Aprilia** Authorised Dealer immediately.

### ⚠ CAUTION

The muffler reaches a very high temperature, allow 20/30 minutes after use before touching the muffler and never park the vehicle close to flammable materials or dry grass to avoid fire.

## INSTRUCTIONS FOR USE



### PRE-RIDE CHECKS

#### ⚠ WARNING

Check the vehicle before each ride to ensure safe riding. (See the PRE-RIDE CHECKS CHART).

Failure to perform these checks may lead to severe personal injury or vehicle damage.

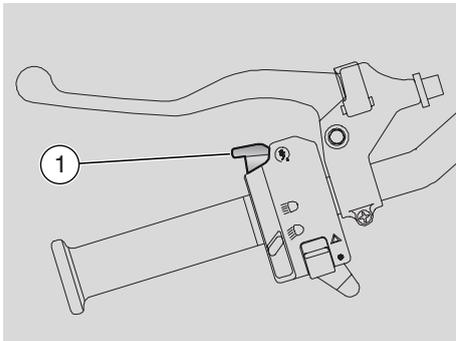
If you have any doubts on the operation of the vehicle controls or believe that any vehicle components might be faulty, do not hesitate to contact an **Aprilia** Authorised Dealer.

A quick pre-ride check takes just a few minutes and greatly improves your safety.

**CAUTION** Perform maintenance operations more frequently than the indicated intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

### PRE-RIDE CHECKS CHART

Part	Check	Part
Throttle	Check for smooth operation; throttle should fully open and close at all positions of the steering. Adjust and/or lubricate, if necessary.	41
Drive chain	Check for play.	39
Fastening elements	Make sure that the fastening elements are not loose. Adjust or tighten as required.	/
Front and rear brake	Check for proper operation, check lever free play, fluid level and check for leaks. Check the pads for wear. Top up brake fluid, if necessary.	26, 27
Brake levers	Make sure that they work smoothly. If necessary, lubricate the joints.	42
Lights, warning lights, horn, rear brake light switches and electrical devices	Check the proper operation of the acoustic and visual devices. Change the bulbs or repair if faulty.	48÷51
Mixer oil 50 100	Check and/or top up as required.	21
Engine oil 125 180	Check and/or top up as required.	25
Idling speed	Check that engine idling speed is correct	42
Wheels / tyres	Check tyre surface, inflation pressure. Check for wear or damage. Remove any objects trapped in the tread.	22
Fuel tank	Check fuel level and top up, if necessary. Check the circuit for leaks. Make sure the filler plug is tightened securely.	20
Suspensions	Check front and rear suspensions for proper operation	41
Steering	Steering should rotate smoothly and evenly. There should be no play or looseness.	/



## STARTING

### ⚠ WARNING

**This vehicle should be used gradually and with utmost care. Do not store any objects on the handlebars as this could impair handlebar movement or hide the instrument panel from your vision.**

**CAUTION** Before starting the engine, carefully read section "Safe Riding", see page 5 (SAFE RIDING).

### ⚠ WARNING

**Exhaust gases contain carbon monoxide, which is extremely toxic if inhaled. Do not start the engine in an enclosed space or poorly ventilated area. Failure to observe this warning may lead to loss of consciousness or even death by asphyxia.**

- ◆ Check parking brake operation, see page 33 (PARKING).
- ◆ Sit astride the vehicle.
- ◆ **50 100** Turn fuel cock to ON or RES position, see page 21 (FUEL COCK).
- ◆ Turn the key and set the ignition switch to position "O".
- ◆ **50 100** Check that the red "Mixer oil reserve" (M) goes out. If not, top up, see page 21 (MIXER OIL RESERVOIR).
- ◆ **125 180** If the yellow "Fuel reserve" light (R) comes on, refuel as soon as possible.
- ◆ **125 180** Check that the green "Neutral" (N) light comes on. If a gear is engaged, it is not possible to start the engine.

- ◆ Press the starter button "⚡" (1) - do not open the throttle yet - and release the button as soon as the engine starts.

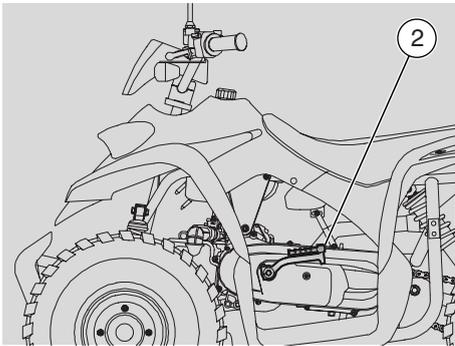
### ⚠ CAUTION

**Do not press the starter button "⚡" for more than fifteen seconds at a time or it will draw too much current from the battery. If the engine does not start within fifteen seconds, wait ten seconds and then press the button "⚡" again.**

### ⚠ CAUTION

**Avoid pressing the starter button "⚡" with the engine running or you will damage the starter motor.**

- ◆ Engage the parking brake and do not open the throttle until before moving off.

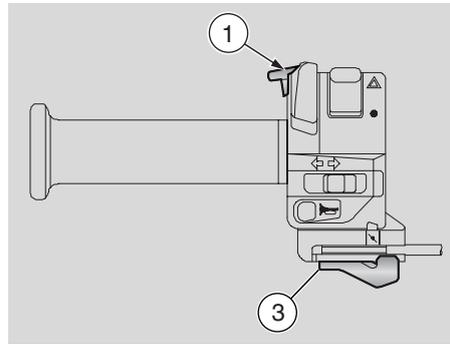


If the mixer oil reserve light (⚠) stays on after the engine is running or comes on during normal engine operation, it means that engine oil pressure in the circuit is low. In this case, immediately stop the engine and top up.

### ⚠ CAUTION

**Never move off abruptly with a cold engine. To reduce emissions and fuel consumption, ride slowly until covering several miles to warm the engine up to operating temperature.**

**CAUTION** If starting fails with the electric starter, use the “kick-start” pedal (2).



### STARTING WITH FLOODED ENGINE

If the starting is not carried out properly or if there is too much fuel in the intake ducts the engine may get flooded.

To clean a flooded engine:

- ◆ Rotate the choke lever “↶” (3) leftwards.
- ◆ Press the starter button “⊖” (1) for a few seconds (letting the engine crank) with the throttle fully pressed.

### STARTING THE ENGINE FROM COLD

If ambient temperature is low (close to or below 0°C), you may have trouble starting the engine at the first attempt.

If so:

- ◆ Rotate the choke lever “↶” (3) leftwards.
- ◆ Hold down the starter button “⊖” (1) for at least ten seconds and press the throttle slightly.

### If the engine starts:

- ◆ Release of the throttle.
- ◆ Rotate the choke lever “↷” (3) rightwards.  
If idle speed is erratic, press the throttle moderately several times.

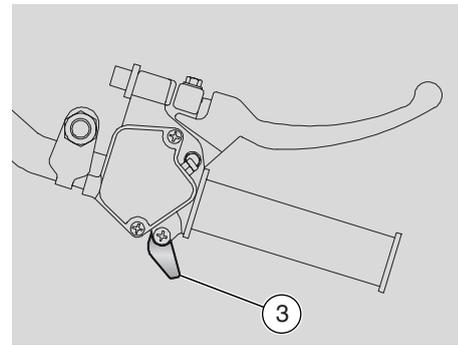
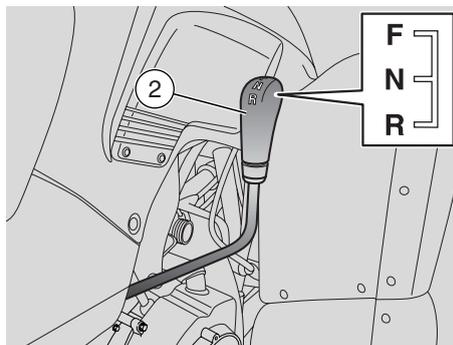
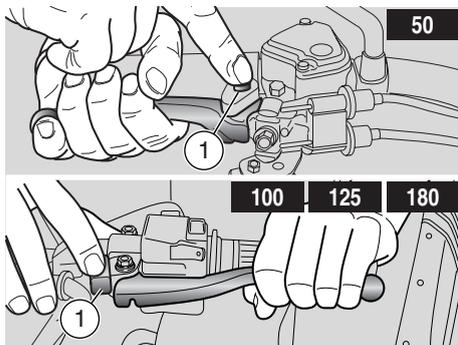
### If the engine fails to start

Wait a few seconds and repeat the starting procedure.

### STARTING AFTER A LONG PERIOD OF INACTIVITY

If the vehicle has been left unriden for a long time, crank the engine with the starter motor for about ten seconds, do not accelerate, in order to ensure the filling of the float chamber.

To start the engine, slightly accelerate and carry out the starting procedure.



## MOVING OFF AND RIDING

### To move off:

- ◆ Adjust the rear-view mirrors.
- ◆ Start the engine, see page 30 (STARTING).
- ◆ Release of the parking brake (1).
- ◆ **125 180** Set the gear change lever (2) to (F) position to engage the gear.
- ◆ Press the throttle lever (3), the vehicle will start moving.
- ◆ Ride at slow speed until covering several kilometres/miles to warm the engine up to operating temperature.

## CAUTION

**125 180** It is possible to engage the reverse gear by pulling the rear brake lever and bringing the gear change lever (2) to (R) position.

## ⚠ CAUTION

**When going in reverse, proceed with utmost care, pay attention to property, persons or animals.**

## RUNNING-IN

Correct engine running is essential to ensuring proper performance and durability. Vary speed frequently during the running-in period.

This will allow engine parts to be alternately loaded and unloaded, allowing them to cool down when unloaded.

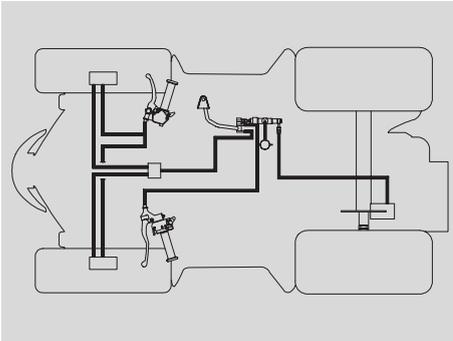
While it is important to put some stress on engine components during running-in, it is equally important to avoid extreme load conditions.

## CAUTION

It is possible to reach the best performance of the vehicle only when the first 20 ℓ of fuel have been used.

### Follow these recommendations:

- ◆ Do not open the throttle harshly and completely when engine is running at low rpm.
- ◆ During the first 4 hours of operation, use the brakes gently and avoid harsh, prolonged braking. This will help the brake pads bed in properly against the brake discs and block friction material to settle onto brake drums.



## STOPPING

### **⚠ WARNING**

If you can, do not stop or slow down suddenly and avoid limit-braking.

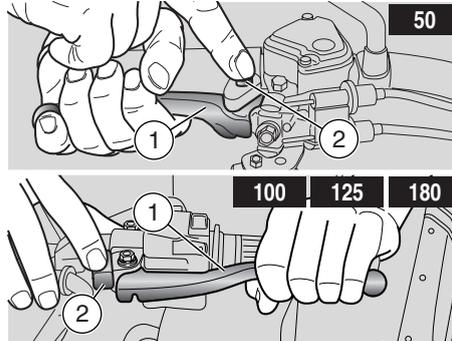
- ◆ Release of the throttle.
- ◆ Gradually put on the brakes until the vehicle stops.
- ◆ If you need to stop only briefly, keep at least one brake applied.

### CAUTION

100 125 180 Use, whenever possible, the brake pedal that applies front and rear brakes at the same time thanks to a distribution frame, thus ensuring quick deceleration without the risk of locking the wheel.

### **⚠ CAUTION**

If left stranded, in an emergency, switch on the hazard lights.



## PARKING

It is very important to select an adequate place to park your vehicle - observe local regulations and the indications given below.

### **⚠ WARNING**

**Park the vehicle on firm and flat ground. Make sure that the vehicle and any of its parts that are still hot do not pose a burn risk for any persons nearby, especially children. Do not leave the vehicle unattended with the engine running or the key in the ignition switch.**

**To park the vehicle:**

- ◆ Select a suitable area for parking.
- ◆ Turn the ignition switch to "OFF" to stop the vehicle.
- ◆ Engage the parking brake with the rear brake lever (1) and lock its position by engaging fastener (2).

### **⚠ WARNING**

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

## SUGGESTIONS TO PREVENT THEFT

NEVER leave the key in the ignition switch when leaving the vehicle unattended, unused or simply parked.

Park the vehicle in a safe place, possibly in a garage or at a guarded parking place.

If possible, use an additional antitheft device.

Make sure you have all the necessary documents with you and that the road tax has been paid.

Write your personal data and telephone number in this page to help trace the vehicle back to you in the event it is stolen and subsequently recovered.

SURNAME: .....

NAME: .....

ADDRESS: .....

.....

TELEPHONE NO.: .....

### CAUTION

In most cases, stolen vehicles are identified through the data written on the Owner's Manual.

### WARNING

**Risk of fire.**

**Keep fuel and other flammable substances away from electric components.**

**Before proceeding to service or inspect of the vehicle, stop the engine and remove the key from the ignition, wait for the engine and the exhaust system to cool down and, if possible, lift the vehicle using adequate lifting equipment placed on firm and level ground.**

**Ensure the area is well ventilated before proceeding.**

**Be careful not to touch hot engine and exhaust system parts that might burn you.**

**Do not put any vehicle parts into your mouth: vehicle components are not edible and some of them are harmful or even toxic.**

### CAUTION

**Unless expressly indicated otherwise, reassembly is a reversal of the disassembly procedure.**

**Wear latex gloves during servicing.**

Normally, scheduled maintenance can be carried out by the owner, although some operations may require specific tools and technical training.

If you need assistance or technical advice, contact an **Aprilia** Authorised Dealer for guaranteed accurate, prompt service.

We recommend having the vehicle road-tested at the **Aprilia** Authorised Dealer after repair or servicing.

In addition, perform the "Pre-ride checks" after each maintenance operation, see page 29 (PRE-RIDE CHECKS CHART).

## SCHEDULED MAINTENANCE CHART

OPERATIONS TO BE CARRIED OUT BY THE **Aprilia** Authorised Dealer(CAN BE CARRIED OUT BY THE USER AS WELL).

### KEY

① = check, clean and possibly lubricate, adjust, top up or replace, if needed;

② = clean;

③ = replace;

④ = adjust;

\* = perform maintenance operations monthly if you are riding in muddy or dusty conditions, on wet or rough road surfaces (off-road).

**CAUTION** Perform maintenance operations more frequently than the indicated intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

Component	End of running-in (after 2 weeks)	Monthly	Every six months	Every year
Throttle and brake cables	①	①		
Battery	①	①		
Spark plug			①	
Carburettor - idling	①		②	
Drive chain	①	Every 10 hours of use: ①		
Air filter		②		③
Engine oil filter			②	
Fuel indicator	①	①		
Light switch	①	①		
Brake light switches	①		①	
Brake fluid level	Check before every trip			
Engine oil *  	③		③	
Tyre pressure	①	Check before every trip		
Mixer oil reserve light	Check before every trip			
Front brake drums/blocks	①	Check before every trip		
Rear brake pad wear	①	①		

## OPERATIONS TO BE CARRIED OUT BY THE **Aprilia** Authorised Dealer

### KEY

① = check, clean and possibly lubricate, adjust, top up or replace, if needed;

② = clean;

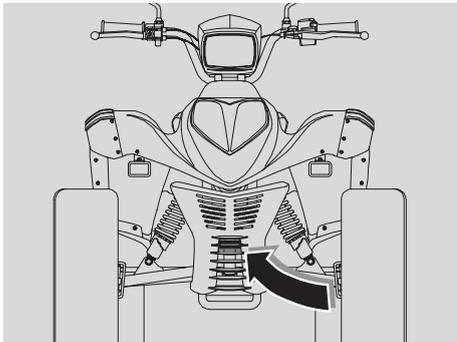
③ = replace;

④ = adjust;

\* = perform maintenance operations monthly if you are riding in muddy or dusty conditions, on wet or rough road surfaces (off-road).

**CAUTION** Perform maintenance operations more frequently than the indicated intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

Component	End of running-in (after 2 weeks)	Monthly	Every six months	Every year
Spark advance				④
Drive chain <b>125</b> <b>180</b>			①	
Transmission cables *	①		①	
Drive belt				①
Steering tube bearing and steering play	①		①	
Clamps				①
Fuel filter			③	
Clutch				①
Vehicle operation	①		①	
Valve clearance <b>125</b> <b>180</b>	④			④
Grease			①	
Brake fluid	Every two years	③		
Exhaust muffler/exhaust silencer				①
Transmission fluid *	③		③	
Rear pulley pins				③
Mobile & fixed front pulley				③
Converter rollers				③
Nut, bolt, screw tightening	①		①	
Battery terminals tightening	①			
Suspensions *			①	
Bleeding the brake system	①			①
Fuel hose	①		①	
Brake hoses				①
Brake disc wear			①	

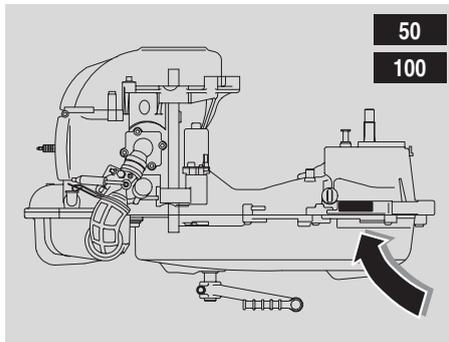


### IDENTIFICATION DATA

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

You may be asked to provide the frame number when purchasing spare parts.

**CAUTION** Altering a vehicle identification numbers is illegal and punished by the law with fines and imprisonment. In addition, altering the frame number invalidates the warranty.

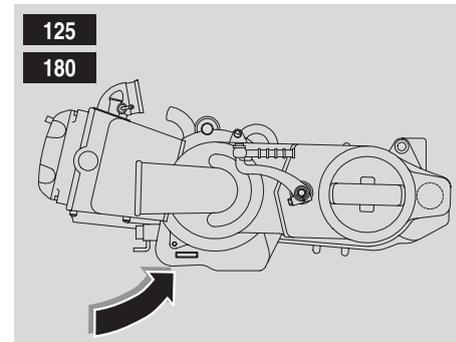


### FRAME NUMBER

The frame number is stamped on the vehicle front, on the frame.

**125** **180** To read the frame number, it is necessary to remove the front fairing.

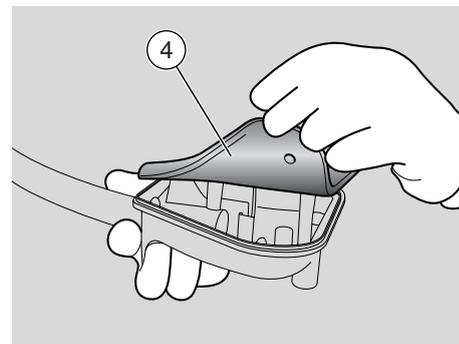
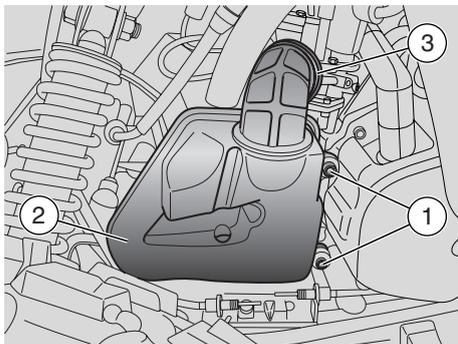
Frame no. \_\_\_\_\_



### ENGINE NUMBER

The engine number is stamped on the crankcase, on the vehicle left side.

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



## Air filter 50 100

**CAUTION** Perform maintenance operations more frequently than the indicated intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

### ⚠ CAUTION

Partial cleaning of the air filter does not eliminate the need to change the filter at the specified intervals. Do not start the engine when the air filter is not in place. Do not clean the filter element with petrol or solvents. These products may cause the fuel to ignite in the fuel system, leading to personal injury and vehicle damage.

**DO NOT RELEASE POLLUTING PRODUCTS INTO THE ENVIRONMENT.**

## REMOVING

- ◆ Unscrew and remove the two retaining screws (1) of air box (2).
- ◆ Remove the clamp (3) securing the pipe to the carburettor.
- ◆ Remove the air box (2).
- ◆ Remove the screws and the air box cover.
- ◆ Extract the air filter (4).

### ⚠ CAUTION

Block off the opening with a clean cloth to prevent the ingress of dirt into the intake ducts. On refitting, make sure to remove the cloths and any other objects you may have placed into the airbox before installing the air box cover. Make sure the air filter is properly in place or it will let unfiltered air into the system. Note that early wear of piston rings and cylinder is frequently due to a defective or badly positioned air filter.

## PARTIAL CLEANING 50 100

### ⚠ CAUTION

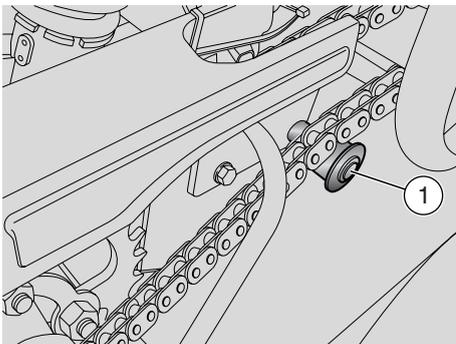
**Do not use a screwdriver or any other tools on the air filter.**

- ◆ Hold the air filter (4) in a vertical position and tap it repeatedly on a clean bench.
- ◆ If needed, blow the air filter (4) with an air line. Aim the nozzle from the inside of the meshing outwards.

### ⚠ CAUTION

**When cleaning the air filter, ensure the meshing is not torn. Always change a damaged air filter.**

- ◆ Clean the outer surface of the air filter (4) with the suitable products for cleaning this type of filters.



## Drive chain

### ⚠ CAUTION

A wrong adjustment of the chain might damage the chain and the adjustment screw.

Periodically check the chain slack and adjust, if necessary.

Have the chain adjusted and replaced at an **Aprilia** Authorised Dealer only, for guaranteed accurate, prompt service.

Improper maintenance may lead to early wear of the chain and/or front/rear sprocket damage.

**CAUTION** Perform maintenance operations more frequently than the indicated intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

## CHAIN SLACK INSPECTION

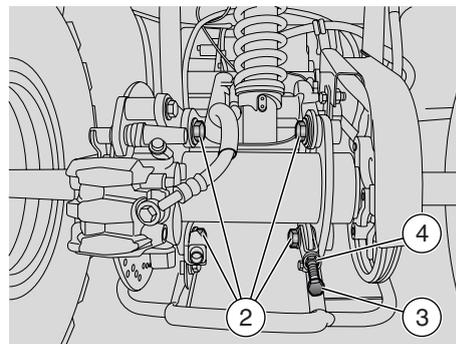
To check chain slack:

- ◆ Stop the engine.
- ◆ Remove the chain tensioner (1) check that the vertical slack in the chain upper section, in an intermediate point between rear and front sprocket, is approximately **15 - 20 mm** 50 100, **50 - 60 mm** 125 180.
- ◆ Move the vehicle forward so to check the chain vertical slack even at other positions; the slack should be the same with the wheel at any position.
- ◆ Refit the chain tensioner (1).

### ⚠ CAUTION

If slack is greater at particular positions of the chain, it means that some links are warped or have seized. In this case, contact an **Aprilia** Authorised Dealer. To prevent seizure, lubricate the chain frequently.

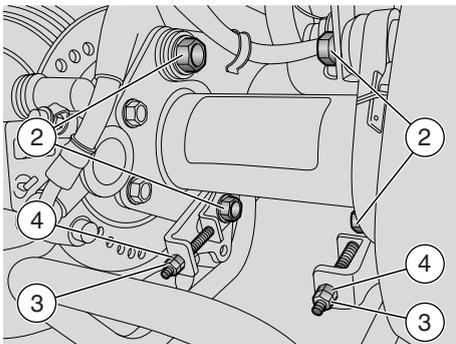
Chain slack must be adjusted whenever it differs from the specified value, even when it is consistent at all positions of the chain.



## ADJUSTING 125 180

If the chain needs adjusting after the inspection, proceed as follows:

- ◆ Loosen the 4 screws (2).
- ◆ Partially loosen lock nut (3) on tensioner.
- ◆ Adjust chain tension by turning screw (4).
- ◆ After the adjustment, tighten the lock nut (3).
- ◆ Tighten the 4 screws (2).
- ◆ Check chain slack complies with specified values.



## CHECKING CHAIN AND SPROCKETS FOR WEAR

Visually inspect chain, front and rear sprockets looking for:

- damaged chain rollers;
- loose chain link pins;
- dry, rusty, warped or seized links;
- exceeding wear;
- exceedingly worn or damaged sprocket teeth.

### **⚠ CAUTION**

**If chain rollers are damaged and/or chain link pins are loose, renew the drive chain and the front and rear sprockets as a set.**

**Lubricate the chain frequently, especially if you find any dry or rusty parts.**

**Change the chain if some links are warped or have seized.**

**If this is not possible, have the chain replaced at an **Aprilia** Authorised Dealer.**

## CLEANING AND LUBRICATION

Never wash the drive chain using steam cleaners, high-pressure water nozzles or highly flammable solvents.

- ◆ Wash the drive chain with fuel oil or kerosene. If the chain tends to become rusty quickly, service more frequently.
- ◆ Wash and dry the chain, lubricate it with recommended grease (see lubricant table).

### **CAUTION**

Do not ride when you have only just lubricated the chain. Centrifugal force would cause the newly applied lubricant to fly all over adjacent vehicle parts.

## ADJUSTING 50 100

If the chain needs adjusting after the inspection, proceed as follows:

- ◆ Loosen the 4 screws (2).
- ◆ Partially loosen the lock nuts (3).
- ◆ Adjust chain tension by turning nuts (4).
- ◆ After the adjustment, tighten the lock nuts (3).
- ◆ Tighten the 4 screws (2).
- ◆ Check chain slack complies with specified values.

## CHECKING AND SERVICING THE SUSPENSIONS

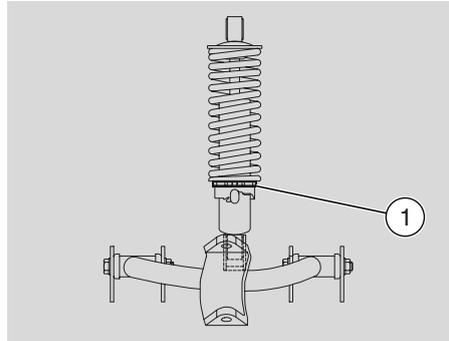
Visually inspect the front and rear suspensions, check that they are not scratched or damaged in any way.

Pull the front brake lever and press on the handlebar some times to check front suspension efficiency.

Repeat this check for the rear suspension: pull the rear brake lever and press on the seat rear end a few times.

In both cases the stroke should be gradual and smooth.

Should you find suspension “bottoming”, contact an **Aprilia** Authorised Dealer.

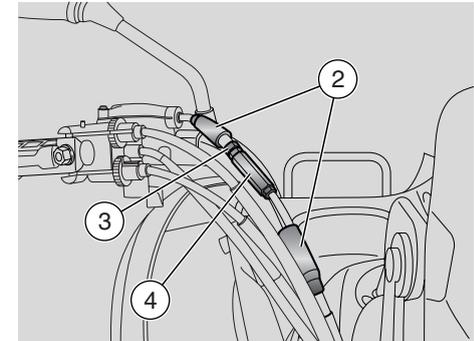


### ADJUSTING THE REAR SUSPENSION

The rear shock absorber fits a ring nut (1) with 5 positions, used to adjust spring preload setting. The standard adjustment, set by the manufacturer, is suitable for a rider weighing about 70 kg.

To change this setting, turn ring nut (1) with a pin wrench:

- ◆ Turn left to increase the preload (stiff).
- ◆ Turn right to decrease the preload (soft).



### ADJUSTING THE THROTTLE TWISTGRIP

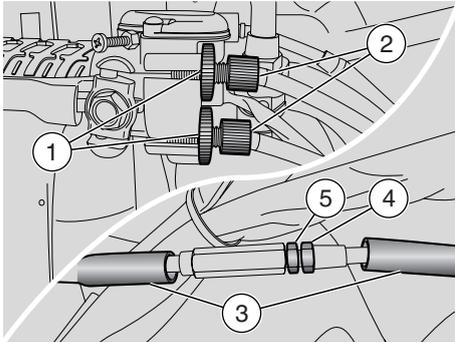
There should be **2-6 mm** free play in the throttle lever (measured at lever edge).

**If not so:**

- ◆ Withdraw the protections (2).
- ◆ Slacken the lock nut (3).
- ◆ Rotate the adjuster (4) until achieving the specified free play.
- ◆ When finished, tighten the lock nut (3) and check free play again.
- ◆ Refit the protections (2).

### **⚠ CAUTION**

**When finished, turn the handlebar to make sure its movement does not affect the engine idle rpm and check that the throttle lever - when released - returns smoothly to the closed position.**



## ADJUSTING THE BRAKE LEVERS

### Front:

- ◆ Loosen ring nut (1).
- ◆ Turn the adjuster screw (2).

### ⚠ CAUTION

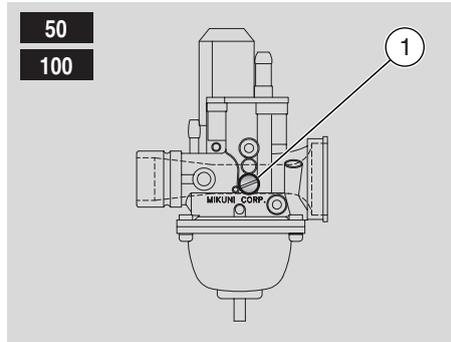
Adjust both brake cables at the same time.

### Rear:

- ◆ Withdraw the protections (3).
- ◆ Slacken the lock nut (4).
- ◆ Turn adjuster (5) and set desired free travel.
- ◆ Tighten the lock nut (4).
- ◆ Refit the protections (3).

### ⚠ CAUTION

Once finished with the setting, check that the wheels turn freely at any position of the handlebar.



## IDLING ADJUSTMENT

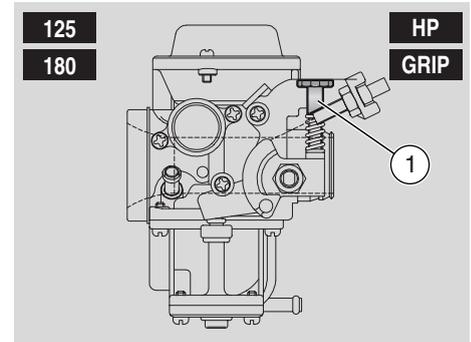
Adjust the idling speed every time it is erratic.

To carry out this operation, proceed as follows:

- ◆ Ride for a few kilometres until reaching engine operating temperature.

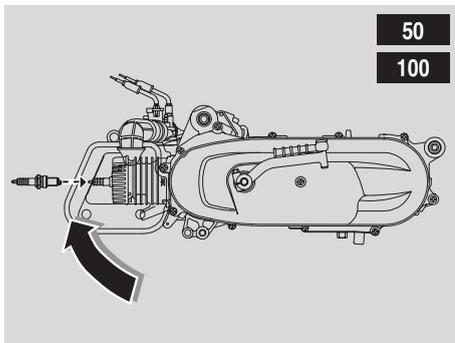
### If necessary:

- ◆ Turn the adjuster screw (1).
  - By **SCREWING IT** (clockwise), you increase the engine rpm.
  - By **UNSCREWING IT** (anticlockwise), you decrease the engine rpm.



- ◆ Keep the vehicle brakes, accelerating and decelerating a few times to make sure that it operates correctly and to check if the idling speed is constant.

**CAUTION** If necessary, contact an **Aprilia** Authorised Dealer.



## Spark plug

### ⚠ CAUTION

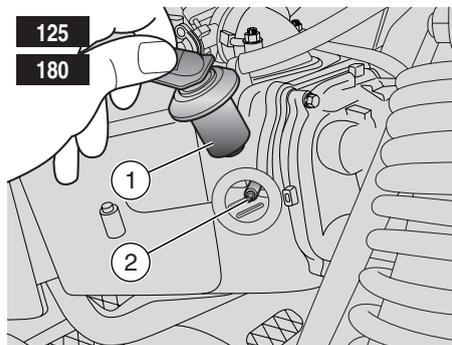
**50 100** The spark plug is on engine cylinder head, you can access it from the front right wheelhouse.

**125 180** The spark plug is on the valve cover right-hand side you can access it from the front right wheelhouse.

### CAUTION

Perform maintenance operations more frequently if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

At regular intervals, remove the spark plug and clean off any carbon deposits or replace as required.

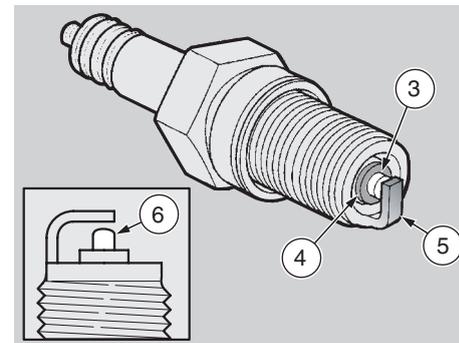


### ⚠ WARNING

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

#### Removal:

- ◆ Pull the cap (1) off the spark plug (2).
- ◆ Remove any trace of dirt from the spark plug base.
- ◆ Fit the special socket included in the tool kit to the spark plug.
- ◆ Unscrew the spark plug and extract it from its seat, making sure no dust or dirt fall into the cylinder.



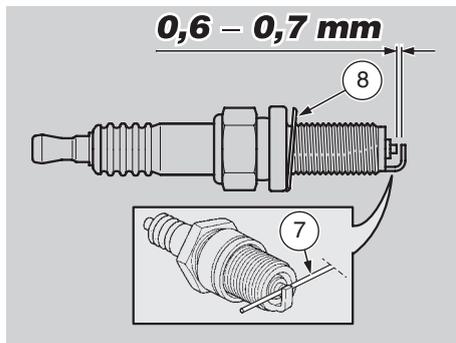
## Inspection and cleaning:

### Key:

- centre electrode (3),
- insulator (4);
- side electrode (5).

- ◆ Check electrodes and insulator for carbon deposits or traces of corrosion and blow them with compressed air if needed.

Always change a spark plug which has a cracked insulator, corroded electrodes, excessive deposits or when the tip (6) of the central electrode (3) is rounded from wear.



### ⚠ CAUTION

Make sure the new spark plug has the correct thread pitch and reach.

A thread reach which is too short will let carbon build up in the spark plug hole thread, leading to engine damage when the right spark plug is refitted subsequently.

Use recommended spark plugs only, see page 55 (TECHNICAL DATA). A spark plug of the wrong rating may shorten engine life and cause loss of performance.

Electrode gap should be checked using a wire gauge (7) to avoid damaging the platinum coating.

- ◆ Check electrode gap with a wire gauge (7).

### ⚠ CAUTION

**Never attempt to adjust electrode gap.**

Electrode gap should be **0.6 – 0.7 mm**.

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

### Installation:

- ◆ Position the washer (8) and screw in the spark plug by hand in order not to damage the thread.
- ◆ Use the wrench supplied with the tool kit to tighten and compress the washer.

**Spark plug tightening torque: 20 Nm (2 kgm).**

### ⚠ CAUTION

**The spark plug must be tightened firmly, otherwise the engine may overheat and severe damage may occur.**

- ◆ Position the spark plug (2) cap (1) properly, to prevent it coming off due to engine vibration.

## Battery

### ⚠ WARNING

Risk of fire.

Keep fuel and other flammable substances away from electric components.

Never invert the battery cables.

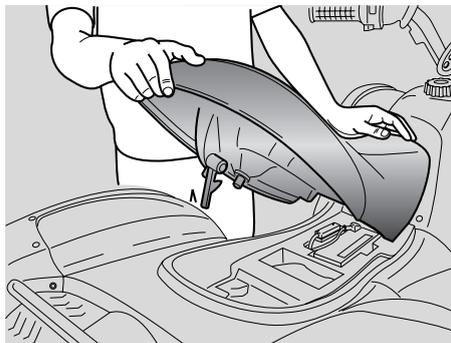
Ensure that the ignition switch is in the "🔌" position before connecting or disconnecting the battery, otherwise some components might damage.

Connect the positive cable (+) first and then the negative cable (-).

Disconnect in the reverse order.

**CAUTION** This vehicle is fitted with a maintenance-free battery which seldom needs inspecting and may need charging from time to time.

Disconnect the terminals if the vehicle is to be left unused for a long period.



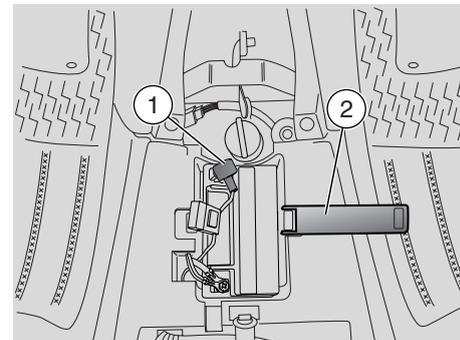
### CHECKING AND CLEANING THE TERMINALS

Carefully read page 45 (Battery)

- ◆ Ensure the ignition switch is in the "🔌" position.
- ◆ Remove the seat, see page 19 (GLOVE/TOOL KIT COMPARTMENT).
- ◆ Slide the red protective cap (1) aside.
- ◆ Make sure that the cable terminals and the battery terminals are:
  - in good condition (and not corroded or covered with deposits);
  - covered with neutral grease or Vaseline.

If necessary:

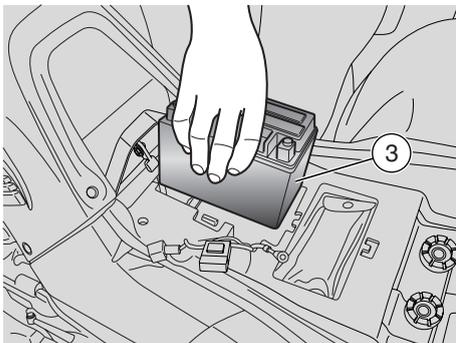
- ◆ Remove the battery, see page 45 (REMOVING THE BATTERY)
- ◆ Clean off cable and battery terminals with a wire brush to remove all traces of corrosion.



- ◆ Install the battery, see page 47 (INSTALLING THE BATTERY)

### REMOVING THE BATTERY

- ◆ Ensure the ignition switch is in the "🔌" position.
- ◆ Remove the seat.
- ◆ Release and remove the negative (-) terminal screw.
- ◆ Move aside the negative cable.
- ◆ Slide the red protective cap (1) aside.
- ◆ Release and remove the positive (+) terminal screw.
- ◆ Move aside the positive cable.
- ◆ Remove the battery retaining grommet (2).



- ◆ Grasp the battery (3) firmly and lift it out of its mount.

### **⚠ WARNING**

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

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

### **⚠ CAUTION**

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

- ◆ Refit the seat.

## **CHECKING BATTERY FLUID LEVEL**

This vehicle is fitted with a maintenance-free battery and it is not necessary to check battery fluid level.

## **CHARGING THE BATTERY**

Carefully read page 45 (Battery)

### **⚠ CAUTION**

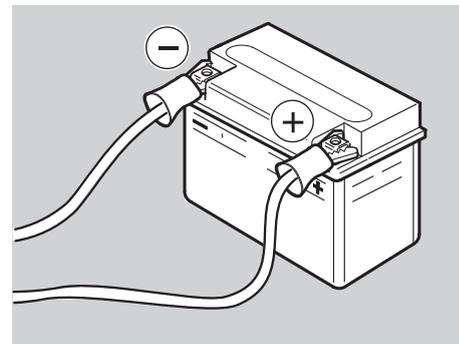
**Do not remove the battery plugs or the battery may damage.**

- ◆ Remove the battery.
- ◆ Be sure to have a suitable battery charger ready at hand.
- ◆ Prepare the battery charger for the required charge.
- ◆ Connect the battery to the battery charger.

### **⚠ WARNING**

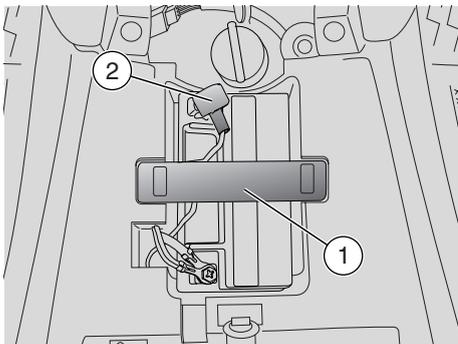
**Charge or use the battery in a well-ventilated place. Do not inhale the gases produced by the battery under charging.**

- ◆ Switch the battery charger on.



### **⚠ WARNING**

**The battery keeps producing gases for some time after the battery charger has been switched off. Allow 5-10 minutes before proceeding to refit the battery.**



## INSTALLING THE BATTERY

- ◆ Ensure the ignition switch is in the "OFF" position.
- ◆ Remove the seat.

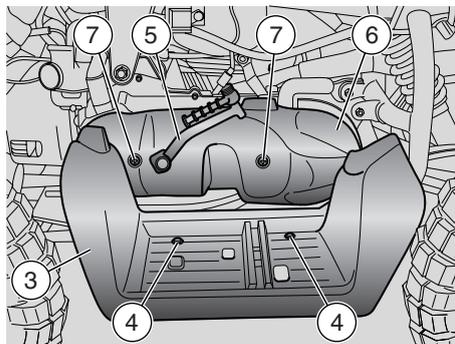
**CAUTION** Place the battery with the terminals pointing to the right side of the vehicle.

- ◆ Refit the battery into its mount.
- ◆ Refit the battery retaining grommet (1).

### ⚠ WARNING

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

- ◆ Connect the positive (+) cable by tightening the terminal screw.
- ◆ Connect the negative (-) cable by tightening the terminal screw.
- ◆ Coat the terminals of cables and battery with neutral grease or Vaseline.



- ◆ Refit the red protective cap (2).
- ◆ Refit the seat.

## TRANSMISSION AIR FILTER

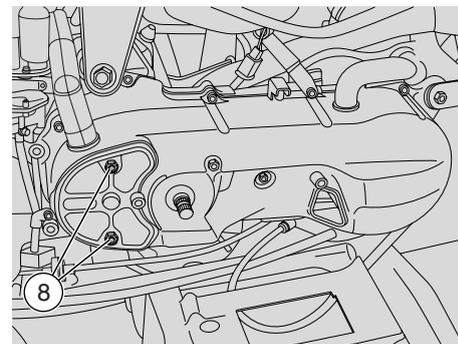
50 100

### ⚠ CAUTION

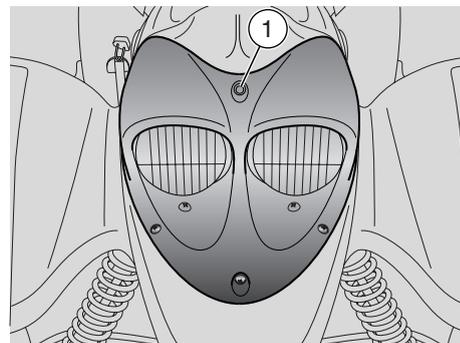
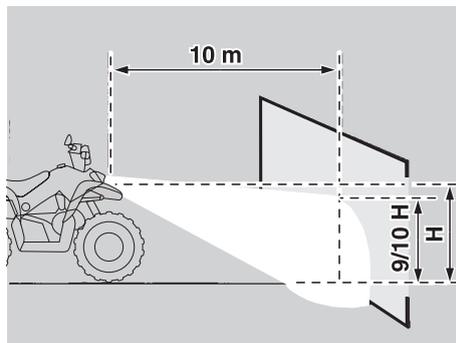
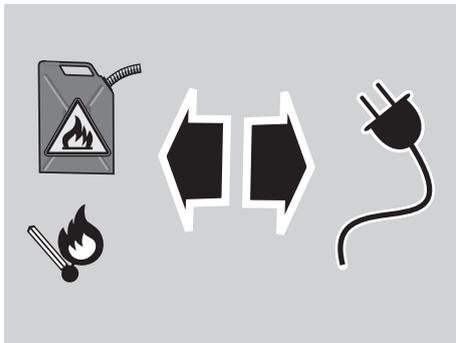
Clean the filter more frequently if the vehicle is often used off-road. Unfiltered dust is extremely harmful for the mechanical parts.

Remove the transmission air filter, proceed as follows:

- ◆ Remove the left footrest (3): loosen the 6 screws securing the footrest to the fairing and the support screws (4).
- ◆ Remove the ignition control lever (5).



- ◆ Remove the soundproofing guard (6) on the left side by loosening the relevant screws (7).
- ◆ Remove the screws (8).
- ◆ Remove the filter and use specific detergents.
- ◆ Let the filter dry and refit it into its seat.



## BULBS

### ⚠ WARNING

Risk of fire.

Keep fuel and other flammable substances away from electric components.

### ⚠ CAUTION

Before proceeding to change a bulb, set the ignition switch to "⊗" and allow some time for the bulb to cool down.

Wear clean gloves or use a clean, dry cloth to handle the new bulb.

Do not put your fingerprints on the bulb, as this may lead to overheating and failure.

If you have handled the bulb with bare hands, clean it with alcohol to avoid any damage.

DO NOT PULL ON THE WIRES.

## VERTICAL ADJUSTMENT OF THE HEADLIGHT BEAM

**CAUTION** Beam inspection procedures may vary from country to country. Observe the law in force in the country of the user.

For a quick beam inspection, place the vehicle on level ground, ten metres away from a vertical wall.

Switch on the low beam, sit astride the vehicle and make sure that the light spot on the wall is just below the horizontal line of the headlight (about nine/tenths of overall height).

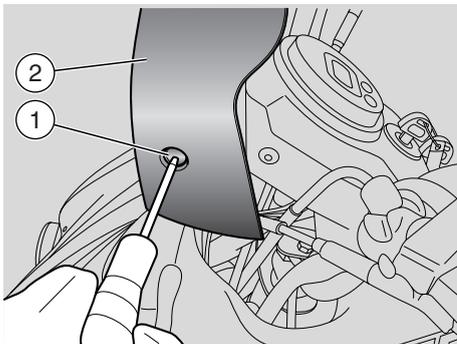
To adjust the headlight beam: **50** **100**

- ◆ Working on the vehicle front end, use a screwdriver to turn screw (1):  
TIGHTEN (clockwise) to lower the beam;  
SLACKEN (anticlockwise) to raise the beam.

When finished:

### ⚠ WARNING

Check for correct beam vertical setting.



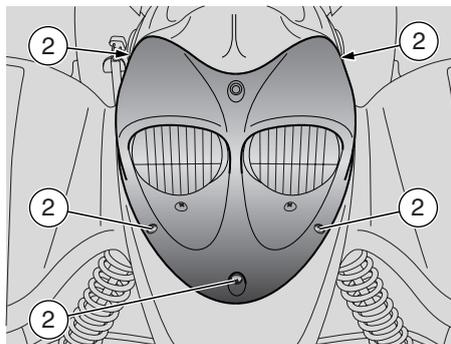
### To adjust the headlight beam: 125 180

- ◆ Loosen the two screws (1) securing the headlight (2) to the relevant supports and set beam direction.
- ◆ Once set to the required position, tighten the screws (1).

When finished:

### **⚠ WARNING**

Check for correct beam vertical setting.

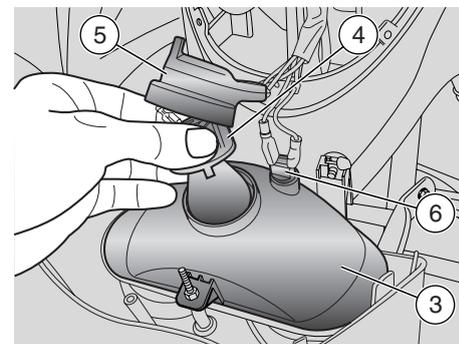


### CHANGING THE HEADLIGHT BULB

50 100

#### To change the bulbs:

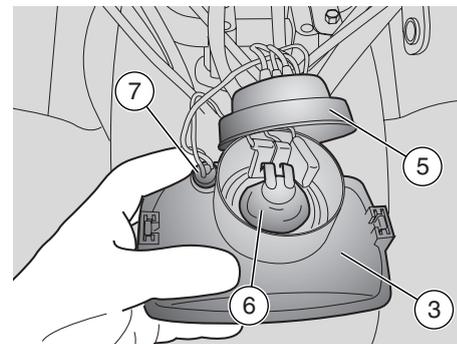
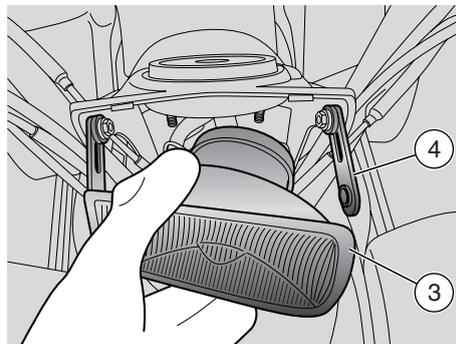
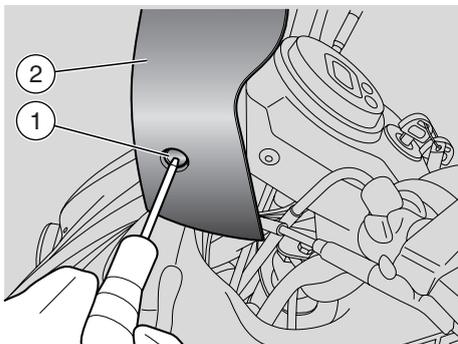
- ◆ Ensure the ignition switch is in the "⊗" position.
- ◆ Loosen the five screws (2) and remove the headlight from the front fairing.
- ◆ Slip off the bulb dust cover (5) with your fingers.
- ◆ Turn counter clockwise the bulb holder (4) and detach it from headlight body (3).
- ◆ Remove the damaged bulb and fit a new bulb of equal rating.



**CAUTION** It is now necessary to set the beam, see page 48 (VERTICAL ADJUSTMENT OF THE HEADLIGHT BEAM).

#### Remove the parking light as follows:

- ◆ Grasp the bulb holder (6) and pull to extract.
- ◆ Remove the parking light bulb and fit a new bulb of equal rating.



## CHANGING THE HEADLIGHT BULB

125 180

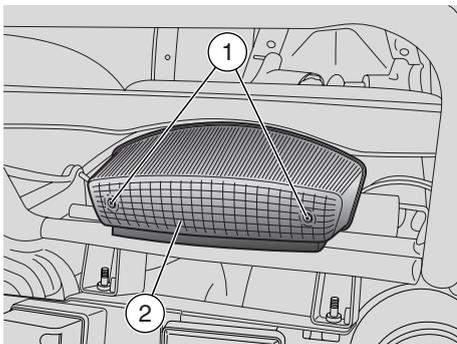
- ◆ Ensure the ignition switch is in the "OFF" position.
- ◆ Completely loosen the screws (1) and remove the headlight cover (2) from the vehicle.
- ◆ Remove the headlight body (3) from the support brackets (4).
- ◆ Remove the dust cover (5).

- ◆ Turn counter clockwise the bulb holder (6) and detach it from headlight body (3).
- ◆ Remove the damaged bulb and fit a new bulb of equal rating.

**CAUTION** It is now necessary to set the beam, see page 48 (VERTICAL ADJUSTMENT OF THE HEADLIGHT BEAM).

## Remove the parking light as follows:

- ◆ Grasp the bulb holder (7) and pull to extract.
- ◆ Remove the parking light bulb and fit a new bulb of equal rating.



## CHANGING THE TAIL LIGHT BULB

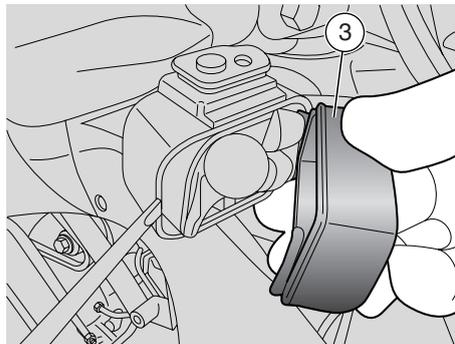
Carefully read page 48 (BULBS)

To change the bulbs:

- ◆ Loosen the two screws (1) securing the tail light lens.
- ◆ Remove the lens (2).
- ◆ Remove the damaged bulb and fit a new bulb of equal rating.

### CAUTION

Now position the lens (2) correctly, match screw holes with the holes on the tail light support.



## REPLACING THE FRONT AND REAR TURN INDICATOR BULBS

Carefully read page 48 (BULBS)

- ◆ Use a screwdriver to lever indicator mount sides and remove the protection (3).

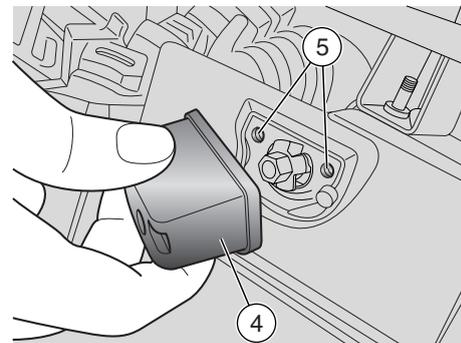
### ⚠ CAUTION

Pay attention while removing the protection or it might damage.

- ◆ Remove the damaged bulb and fit a new bulb of equal rating.

### CAUTION

At reassembly, correctly fit the protection (3) onto indicator mount.



## REPLACING THE NUMBER PLATE BULB

100 125 180

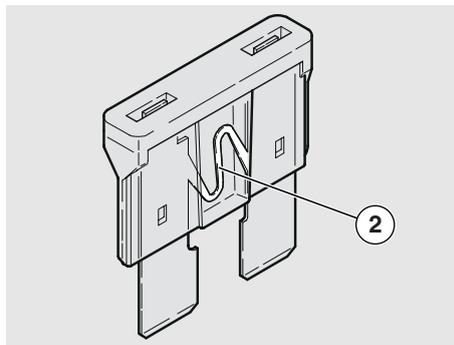
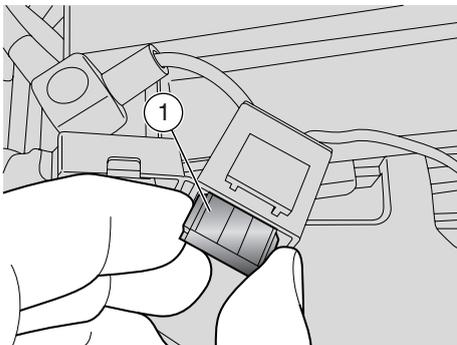
Carefully read page 48 (BULBS)

To change the bulbs:

- ◆ Loosen the two screws securing the number plate light cover (4).
- ◆ Remove the cover (4).
- ◆ Remove the damaged bulb and fit a new bulb of equal rating.

### CAUTION

Now position the cover (4) correctly, match screw holes with the holes (5) on the tail light support.



## CHANGING A FUSE

Carefully read page 6 (BASIC SAFETY RULES)

### CAUTION

Do not repair faulty fuses.

Never use fuses with different rating.

This could damage the electric system or cause a short circuit, with the risk of fire.

**CAUTION** When a fuse fitted in a particular position keeps blowing frequently, there might be a short circuit or overloading.

Checking the fuse is recommended whenever an electric component fails to operate or is malfunctioning, or when the engine does not start.

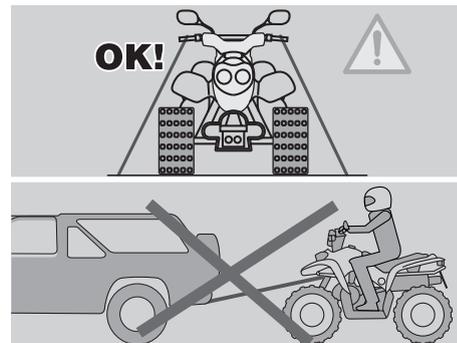
Check as follows:

- ◆ Remove the seat, see page 19 (GLOVE/TOOL KIT COMPARTMENT).
- ◆ Disconnect the battery cables, see page 45 (REMOVING THE BATTERY).
- ◆ Extract and check the fuse (1) - a broken filament (2) means that the fuse is blown.

**CAUTION** Before replacing a fuse, identify the cause of the failure, if possible.

- ◆ Replace the blown fuse with a new one with equal current rating.

## TRANSPORT

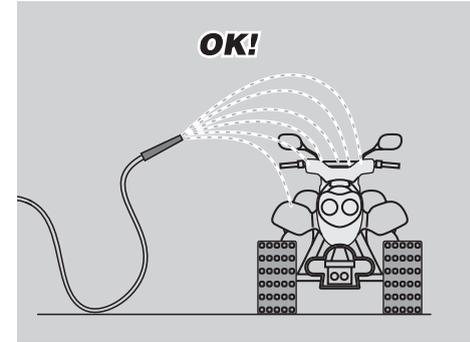
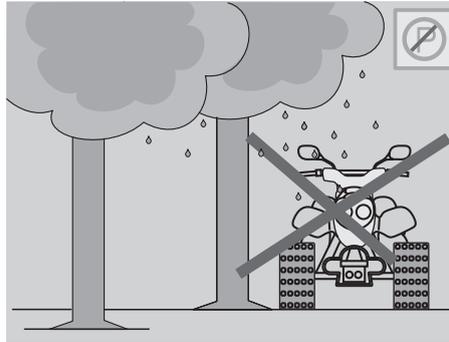
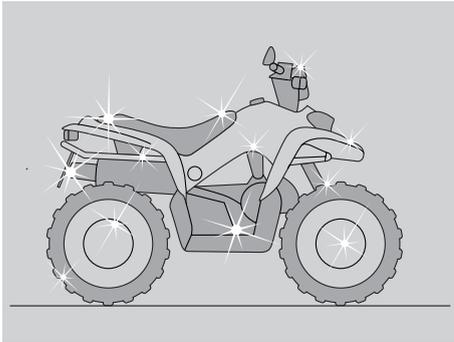


**CAUTION** During transport, the vehicle must be firmly secured and the parking brake should be engaged.

### CAUTION

If stranded, do not have the vehicle towed - contact a roadside service firm instead.

## CLEANING



### ⚠ CAUTION

If the vehicle is used on sandy roads, use fresh water to wash the vehicle immediately after use. Salt water causes rust and early wear. Clean the vehicle frequently if it is used in particular areas or conditions, such as:

- Pollution (urban and industrial areas)
- High salinity and humidity (sea areas, hot and damp climates).
- Seasonal/environmental conditions (road salt and chemicals spread on the roads in the wintertime).
- Make sure to clean off any industrial residue and pollutants, tar, dead insects, bird droppings, etc. from the body panels and fairings.

- Avoid parking the vehicle under trees. Resins, fruits or leaves falling from the trees may contain aggressive chemical substances that may damage the paintwork.

### ⚠ WARNING

After the vehicle has been washed, braking efficiency could be temporarily impaired because the friction surfaces of the braking systems may still be wet.

Ride carefully as braking distance will be longer.

Operate the brakes repeatedly to restore normal operation.

Perform the recommended pre-ride checks, see page 29 (PRE-RIDE CHECKS CHART)

To clean off dirt and mud from painted surfaces, soften caked dirt with a low-pressure water jet. Sponge off using a car body sponge soaked in a car body shampoo and water solution (2-4% parts of shampoo). Then rinse with plenty of water and dry with chamois leather. Clean the outer parts of the engine using a degreaser, small brushes and cloth.

### ⚠ CAUTION

To clean the lights, use a sponge soaked with water and a mild detergent, rubbing the surfaces delicately and rinsing frequently with plenty of water.

Wash the vehicle thoroughly before applying silicone wax.

Do not polish matt-painted surfaces with polishing paste.

Do not wash the vehicle under the sun, especially in the summertime, when the body is still warm, as the shampoo will dry before you can rinse it away and could damage the paint.

Do not use liquids at a temperature higher than 40°C to clean the plastic components of the vehicle.

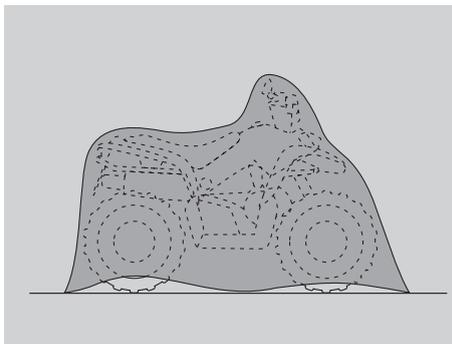
### CAUTION

Do not aim high-pressure water/air jets or steam jets at the following parts: wheel hubs, controls on the right and left side of the handlebar, bearings, brake master cylinders, instruments and indicators, silencer, glove/tool kit compartment, ignition switch, cooler or radiator fins, fuel filler plug, lights and electric connections.

Do not use alcohol, petrol or solvents to clean rubber and plastic parts and the seat; use water and mild soap only.

### WARNING

Do not apply protection waxes to the seat, or it may become slippery.



### LONG PERIODS OF INACTIVITY

When the vehicle is to remain unused for long periods, some precautions are necessary to avoid damage.

Do not postpone necessary repairs or you could forget them when you take the vehicle out of storage; a general check up is also recommended.

Proceed as follows:

- ◆ Remove the battery, see page 45 (REMOVING THE BATTERY)
- ◆ Wash and dry the vehicle, see page 53 (CLEANING)
- ◆ Polish painted surfaces with wax.
- ◆ Inflate the tyres, see page 56 (TYRES)
- ◆ Store the vehicle in an unheated, dry place, away from sunlight, where temperature is reasonably steady.

- ◆ Wrap and tie a plastic bag around the exhaust pipe opening to keep moisture out.
- ◆ Cover the vehicle avoiding plastic or waterproof covers.

### AFTER STORAGE

#### CAUTION

Remove the plastic bag from the exhaust pipe.

- ◆ Remove the cover and clean the vehicle, see page 53 (CLEANING).
- ◆ Check battery charge, see page 46 (CHARGING THE BATTERY) and fit it, see page 47 (INSTALLING THE BATTERY).
- ◆ Fill the fuel tank, see page 20 (FUEL)
- ◆ Perform the recommended pre-ride checks, see page 29 (PRE-RIDE CHECKS CHART).

### WARNING

Test ride the vehicle at moderate speed in an area away from traffic.

## TECHNICAL DATA

		<b>Quasar 50 - 100</b>	<b>Quasar 125 - 180</b>
DIMENSIONS	Length .....	1400 mm (50) - 1430 mm (100)	1775 mm (Grip) / 1685 mm (Hp)
	Width .....	900 mm (50) - 910 mm (100)	990 mm (Grip/Hp)
	Max. height (at handlebar) .....	915 mm (50) - 940 mm (100)	1070 mm (Grip/Hp)
	Wheelbase .....	960 mm (50) - 965 mm (100)	1065 mm (Grip/Hp)
	Minimum ground clearance .....	160 mm	160 mm
	Weight in running order .....	112 kg (50) - 121 Kg (100)	180 kg (Grip) / 170 Kg (Hp)
ENGINE	Type .....	horizontal one-cylinder, 2-stroke engine	horizontal one-cylinder, 4-stroke engine - 2 valves controlled by one overhead camshaft
	Total displacement .....	49.3 cm <sup>3</sup> (50) - 95.6 cm <sup>3</sup> (100)	125 cm <sup>3</sup> (125) - 169 cm <sup>3</sup> (180)
	Bore / stroke .....	40/39.2 mm (50) - 52/45 mm (100)	52.4/57.8 mm (125) - 61/57.8 mm (180)
	Compression ratio .....	6.8 ± 1:1 (50) - 6.2 ± 1:1 (100)	9.1 ± 1 : 1
	Valve clearance .....	0.08 mm (INT - EXH)	0.08 mm (INT - EXH)
	Starting .....	electric + kick starter	electric + kick starter
	Engine idling rpm .....	1800 ± 100 rpm	1800 ± 100 rpm
	Clutch .....	automatic, dry centrifugal clutch	automatic, dry centrifugal clutch
	Gearbox .....	automatic converter, stepless	automatic converter, stepless + reverse gear
	Lubrication .....	automatic mixer	wet sump, forced lubrication with mechanical pump and oil cooler
Cooling .....	forced air-cooling	forced air-cooling	
CAPACITIES	Fuel (reserve included) .....	5 ℓ	8 ℓ
	Fuel reserve .....	0.8 ℓ	1.5 ℓ
	Transmission fluid .....	110 cm <sup>3</sup>	150 cm <sup>3</sup>
	Engine oil		
	- engine oil change only .....	-	0.9 ℓ
	- change for engine overhaul .....	-	1.2 ℓ
	Mixer oil (reserve included) .....	1 ℓ	-
	Mixer oil reserve .....	0.15 ℓ	-
	Seats .....	1	2
	Allowed load (Rider + passenger + luggage) .....	105 kg	180 kg (Grip) / 190 Kg (Hp)

		<b>Quasar 50 - 100</b>	<b>Quasar 125 - 180</b>
TRANSMISSION	Converter .....	automatic, stepless	automatic, stepless
	Primary .....	V-belt	V-belt
	Primary drive ratios		
	- minimum for stepless gearbox .....	2.86	3
	- maximum for stepless gearbox .....	0.976	0.789
	Final.....	gears	gears
Final ratio.....	12.593	11.584	
CARBURETTOR	Model		
	- type.....	Mikuni	Mikuni
	Throttle .....	Ø 19 mm	Ø 22 mm
FUEL SUPPLY	Fuel.....	premium grade unleaded petrol - DIN 51607- with 95 RON and 85 MON octane rating minimum.	
FRAME	Type.....	tube	tube
SUSPENSION	Front .....	with independent linkages	with independent linkages
	Rear.....	hydraulic monoshock	hydraulic monoshock
BRAKES	Front .....	drum brake - Ø 84 mm - with mechanic transmission	drum brake - Ø 109 mm - with mechanic transmission
	Rear.....	disc brake - Ø 180 mm - with hydraulic transmission	disc brake - Ø 200 mm - with hydraulic transmission
WHEEL RIMS	Type.....	in steel	in steel
	Front .....	7x5.2 (50) - 8x5.5 (100)	10x5.5
	Rear.....	7x5.2 (50) - 8x5.5 (100)	8x8.0
TYRES	Type.....	tubeless	tubeless
	Front .....	18 x 7-7 (50) - 19 x 7-8 (100)	21 x 7-10
	Rear.....	18 x 7-7 (50) - 18 x 9.5-8 (100)	21 x 10-8
	Front .....	-	As an alternative AT 21 x 7-10
	Rear.....	-	AT 22 x 10-8
	Front inflation pressure .....	21 kPa (0.21 bar) (50) 34 kPa (0.34 bar) (100)	35 kPa (0.35 bar)
	Rear inflation pressure .....	34 kPa (0.34 bar) (50) 34 kPa (0.34 bar) (100)	21 kPa (0.21 bar)
IGNITION	Type.....	C.D.I. control unit	C.D.I. control unit
	Spark advance.....	14° ± 1°	15° ± 2° (125) - 13° ± 2° (180)

		<b>Quasar 50 - 100</b>	<b>Quasar 125 - 180</b>
SPARK PLUG	Standard.....	NGK BPR7HS	NGK CR7HSA
	Spark plug gap .....	0.6 – 0.7 mm	0.6 – 0.7 mm
ELECTRIC SYSTEM	Battery .....	12 V - 4 Ah	12 V - 9 Ah
	Fuse .....	7 A	15 A
	Generator (with permanent magnet) .....	12 V - 93 W	12 V - 110 W
BULBS	Parking light .....	12 V - 5 W	12 V - 5 W
	Low/high beam .....	12 V - 35/35 W	12 V - 35/35 W
	Turn indicators .....	12 V - 10 W	12 V - 10 W
	Rear parking light/stoplight.....	12 V - 5/21 W	12 V - 5/21 W
	Number plate light .....	12 V – 5W (100)	12 V - 5 W

## LUBRICANT CHART

**(Recommended) Transmission fluid:**  PONTIAX HD SAE 85W-140 or  Agip ROTRA MP 85W-140.

As an alternative to recommended fluids, top brand oils meeting or exceeding A.P.I. GL-5 specifications can be used.

 **(Recommended) Engine oil:**  SUPERMOTOROIL SAE 15W-40 or  Agip F1 SUPERMOTOROIL 15W-40.

As an alternative to recommended fluids, top brand oils meeting or exceeding A.P.I. SJ/CF specifications can be used.

 **(Recommended) Mixer oil:**  PRO GPX2 or  GREEN HIT2  Agip CITY 2T.

**Bearings and other lubrication points (recommended):**  AUTOGREASE MP or  Agip Grease 30.

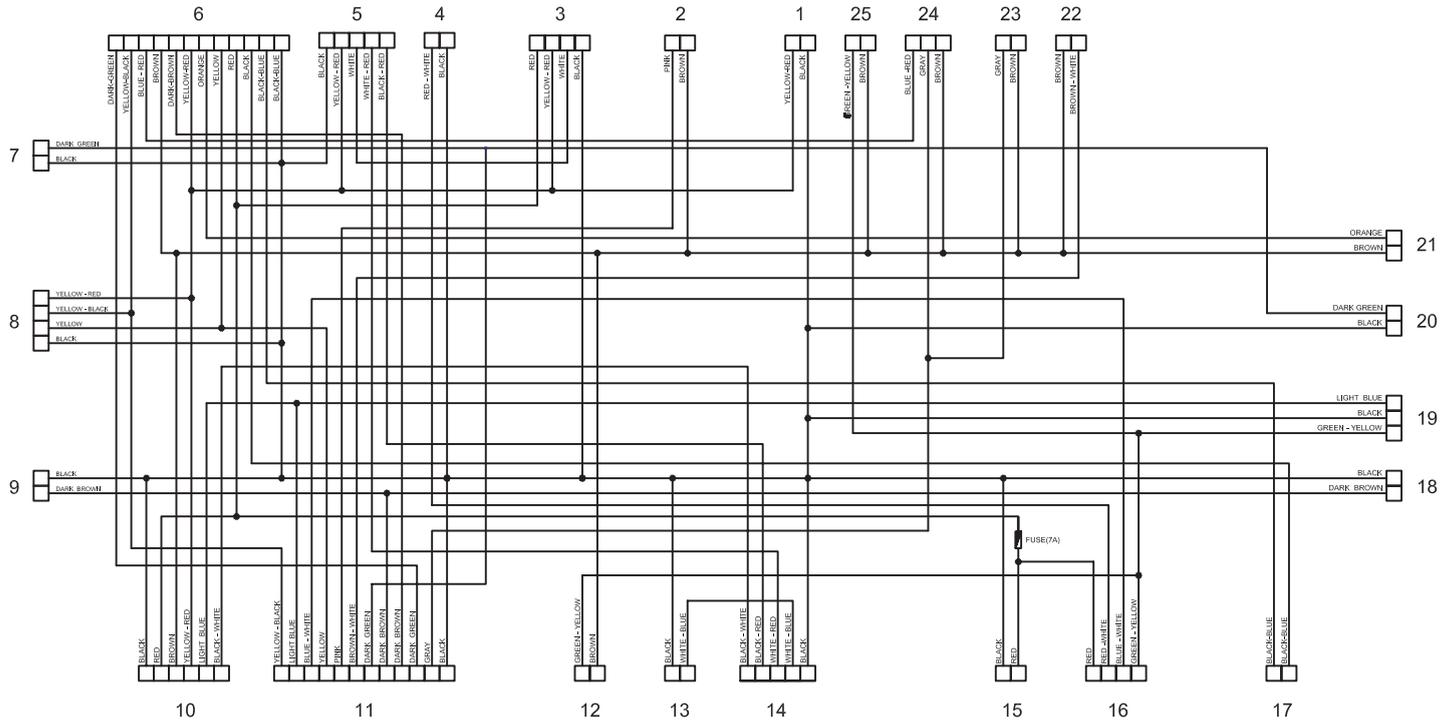
As an alternative to recommended grease, use top brand rolling bearing grease that will resist a temperature range of -30°C +140°C, with dropping point 150°C - 230°C, high corrosion protection, good resistance to water and oxidation.

**Battery lead protection:** Neutral grease or Vaseline.

**Spray grease for chains (recommended):**  CHAIN SPRAY or  Agip CHAIN LUBE.



**ASK FOR GENUINE SPARE PARTS ONLY**



## KEY TO WIRING DIAGRAM

50

100

- 1) Resistor
- 2) Horn
- 3) Rectifier and regulator
- 4) Starting motor
- 5) Generator
- 6) Speedometer
- 7) Right front signal
- 8) Head light assy
- 9) Left front signal
- 10) Main switch
- 11) Light switch assy
- 12) Brake sensor switch cable
- 13) Ignition coil
- 14) CDI unit assy
- 15) Battery
- 16) Starter relay
- 17) Magnet
- 18) Left rear signal
- 19) Tail light assy
- 20) Right rear signal
- 21) Oil level gauge
- 22) Signal warner
- 23) Signal buzzer
- 24) Signal buzzer
- 25) Touch switch

100



## KEY TO WIRING DIAGRAM

125

180

- 1) Rear left direction indicator
- 2) Rear light
- 3) Rear right direction indicator
- 4) License bulb
- 5) Fuel level transmitter
- 6) Back touch switch
- 7) Neutral touch switch
- 8) Stop switch
- 9) Generator
- 10) Ignition coil
- 11) Voltage regulator
- 12) Horn
- 13) Resistor
- 14) Signal Buzzer
- 15) Speedometer assy
- 16) Holder of speedometer
- 17) Magnet
- 18) Starter relay
- 19) Fuse
- 20) Main switch assy
- 21) Right front signal
- 22) Right front light assy
- 23) Head light assy
- 24) Left front light assy
- 25) Left front signal
- 26) Turn signal switch
- 27) Trouble switch
- 28) Starter switch
- 29) Horn switch
- 30) Hi/low light switch
- 31) Stop switch on front brake
- 32) Indicator control
- 33) CDI unit assy
- 34) Battery
- 35) Starting motor

**THE VALUE OF SERVICE**

Thanks to ongoing technical updates and product-specific technical training, **Aprilia** Authorised Network engineers are familiar with every detail of this vehicle and have the special equipment required for correct maintenance and repair.

A vehicle kept in sleek running order is a reliable vehicle. Pre-ride checks, proper maintenance at the recommended intervals and using **Aprilia** Original Parts only are key factors!

To find contact information of the Authorised Dealer and/or Service Centre nearest you, please consult the Yellow Pages or the map provided at our web site:

**[www.aprilia.com](http://www.aprilia.com)**

When you demand **Aprilia** Original Parts, you are purchasing products that have been developed and tested as early as the vehicle design stage. **aprilia** Original Parts systematically undergo strict quality control procedures to ensure total reliability and long service life.

**aprilia s.p.a.** wishes to thank its customers for the purchase of this vehicle:

- Do not release oil, fuel, polluting substances and components into the environment.
- Do not keep the engine running when not necessary.
- Avoid disturbing noise.
- Respect the environment.