













**USE+MAINTENANCE BOOK** 

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Mandello del Lario (LECCO)

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#### **SAFETY WARNINGS**

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

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

#### **A WARNING**

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

## **A** CAUTION

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

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

#### TECHNICAL INFORMATION

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

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

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

# WARNINGS - PRECAUTIONS - GENERAL ADVICE

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

Your and other people's safety depends not only on your quickness of reflexes and on your agility, but also on what you know about the vehicle, on its efficiency and on your knowledge of the basic information for "SAFE DRIVE".

Therefore, get a thorough knowledge of the vehicle, in such a way as to be able to safely drive in the traffic.

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

Moto Guzzi has prepared this manual with the maximum attention, in order to supply the user with correct and updated information. However, since Moto Guzzi 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 **Moto Guzzi** Authorised Dealer.

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

Thank you for choosing **Moto Guzzi**. We wish you a nice ride.

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

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

The user of the vehicle in these countries must:

- contact a Moto Guzzi Authorised dealer to have the non-homologated components replaced with others homologated for use in the country in question;
- carry out the required periodical inspections.

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

Singapore

Brazil

Canada

South Africa

**New Zealand** 

#### VERSION:

Italy

Greece

Holland

Japan

Switzerland Denmark

UK	United Kingdom	<b>(ID</b> )	Slovenia
A	Austria		Israel
P	Portugal	ROK	South Korea
SF	Finland	MAL	Malaysia
₿	Belgium	RCH	Chile
•	Germany	HR	Croatia
•	France	AUS	Australia
•	Spain	<b>USA</b>	United States of America
_		_	

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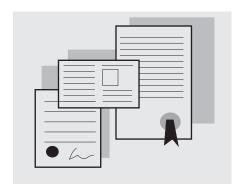








## **SAFE DRIVE**



#### **BASIC SAFETY RULES**

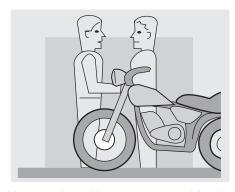
To drive the vehicle it is necessary to be in possession of all the requirements prescribed by law (driving licence, minimum age, psychophysical ability, insurance, state taxes, vehicle registration, number plate, etc.).

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



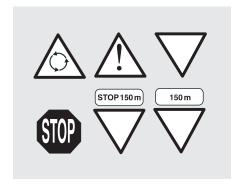
The use of medicins, alcohol and drugs or psychotropic substances notably increases the risk of accidents.

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



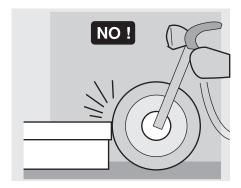
Most road accidents are caused by the driver's lack of experience.

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



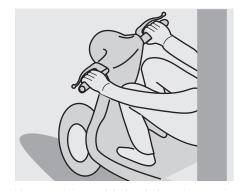
Rigorously observe all road signs and national and local road regulations.

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



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

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

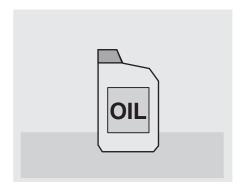


Always drive with both hands on the handlebars and both feet on the footrests (or on the rider's footboards), in the correct driving posture.

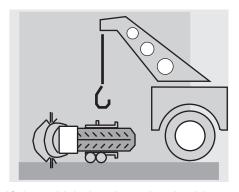
Avoid standing up or stretching your limbs while driving.



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



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

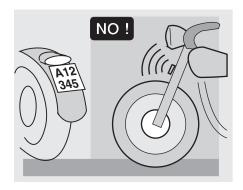


If the vehicle has been involved in an accident, make sure that no damage has occurred to the control levers, pipes, wires, braking system and vital parts.

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

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

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



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

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



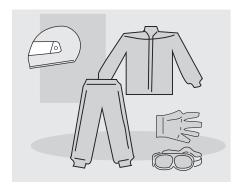
Any modification of the vehicle and/or the removal of original components can compromise vehicle performance levels and safety or even make it illegal.

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

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

Never race with other vehicles.

Avoid off-road driving.

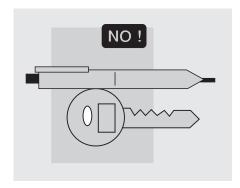


## **CLOTHING**

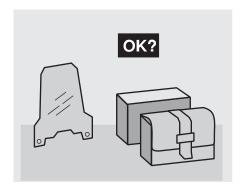
Before starting, always wear a correctly fastened crash helmet. Make sure that it is homologated, in good shape, of the right size and that the visor is clean.

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

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



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



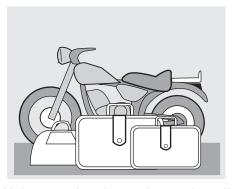
#### **ACCESSORIES**

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

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

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

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



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

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

**Moto Guzzi** recommends the use of genuine accessories (**Moto Guzzi** genuine accessories).

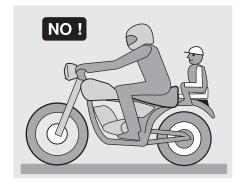
#### LOAD

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



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

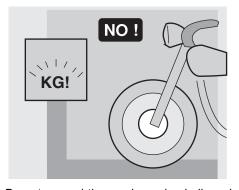
Do not place bags that are too bulky on the vehicle sides and do not ride with them on, because they could hit people or obstacles, making you lose control of the vehicle.



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

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

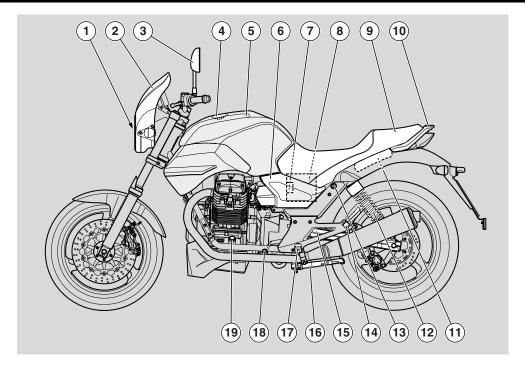
Do not carry animals or children on the glove compartment or on the luggage rack.



Do not exceed the maximum load allowed for each luggage rack.

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

#### **LOCATION OF KEY COMPONENTS KEY**

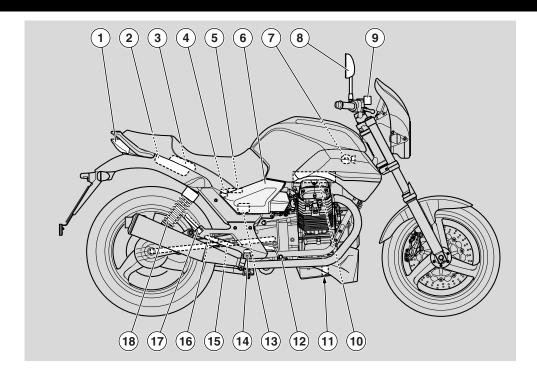


#### KEY

- 1) Headlamp
- 2) Front fairing
- 3) Left rear-view mirror
- 4) Fuel tank filler cap
- 5) Fuel tank
- 6) Left side body panel
- 7) Main fuse carrier (30A)

- 8) Battery
- 9) Passenger/rider seat
- 10) Passenger grab strap
- 11) Glove/tool kit compartment
- 12) Left rear shock absorber
- 13) Seat lock
- 14) Passenger left footpeg

- 15) Rear swinging arm
- 16) Side stand
- 17) Rider left footpeg
- 18) Gear shift lever
- 19) Engine oil metering stick



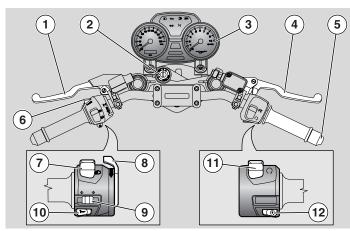
#### **KEY**

- 1) Tail light
- 2) Glove/tool kit compartment
- 3) Rim lock compartment (rim lock OPT )
- 4) Rear brake fluid reservoir
- 5) Auxiliary fuse carrier
- 6) Right side body panel

- 7) Warning horn
- 8) Right rear-view mirror
- 9) Front brake fluid reservoir
- 10) Air cleaner
- 11) Engine oil filter
- 12) Rear brake lever
- 13) Electronic control unit

- 14) Rider right footpeg
- 15) Cardan shaft
- 16) Rear brake master cylinder
- 17) Passenger right footpeg
- 18) Right rear shock absorber

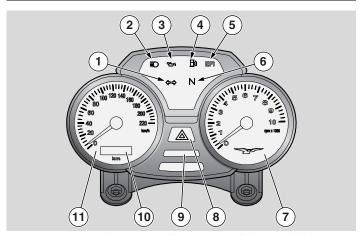
# ARRANGEMENT OF THE INSTRUMENTS/CONTROLS



## ARRANGEMENT OF THE INSTRUMENTS/CONTROLS KEY

- 1) Clutch lever
- 2) Ignition switch/steering lock ( ○- ⋈- 🖟 )
- 3) Instruments and indicators
- 4) Front brake lever
- 5) Throttle grip
- 6) High beam flashing passing push button (≣□)
- 7) Dimmer switch ((□-□-□)
- 8) Cold start lever ( \ \
- 9) Direction indicator switch (⟨□□⟩)
- 10)Horn push button ( )
- 11)Engine stop switch ( ∩-⊗)
- 12)Start push button ( 1)

#### **INSTRUMENTS AND INDICATORS**



# ARRANGEMENT OF THE INSTRUMENTS/CONTROLS KEY

- 1) Green direction indicator warning light (妇)
- 2) Blue high beam warning light ( ≣□ )
- 3) Red engine oil pressure warning light ()
- 4) Amber low fuel warning light ( )
- 5) Red " FF! " warning light
- 6) Green neutral indicator warning light (N)
- 7) Rev counter
- 8) Red emergency indicator push button ( \( \triangle \))
- 9) TRIP push button (multifunction display)
- 10) Multifunction digital display
- 11)Speedometer

#### **INSTRUMENTS AND INDICATORS TABLE**

Description	Function		
Direction indicator warning light (⟨⊐□⟩)	Blinks when the direction indicators are on.		
High beam warning light ( ≣⊜ )	Comes on when the high beam bulbs are on or when the passing is operated.		
Engine oil pressure warning light (☆✓)	Comes on whenever the ignition switch is in position " ( )" and the engine is not running, thus checking the functionality of the light.  If the light does not come on in this phase, contact a Moto Guzzi Authorised Dealer.  If the engine oil pressure warning light " " remains on after the start or comes on during the normal operation of the engine, this means that the engine oil pressure in the circuit is insufficient.  In this case, stop the engine immediately and contact a Moto Guzzi Authorised Dealer.		
Low fuel warning light ( )	Comes on when the quantity of fuel left in the tank is about 5 l. In this case, top up as soon as possible, see p. 25 (FUEL)		
Fuel electronic injection control warning light ( <i>EFI</i> )	It comes on, for about three seconds, whenever the ignition switch is set to " ()" with the engine stopped thus testing the injection system operation. The light must go out after 3 seconds the engine is fired.  A CAUTION  If the light comes on during the normal engine operation, it means that the fue electronic injection system is not working properly. Stop the engine immediately and contact a Moto Guzzi Authorised Dealer		
Neutral indicator warning light (⋈)	Comes on when the gear is in neutral.		
Revolution counter rpm	Indicates the number of revolutions of the engine.  Never exceed the engine max. speed rate, see p. 42 (RUNNING-IN)		
Emergency indicator push button	It flashes with the emergency button pressed. It indicates that both direction indicators are enabled.		

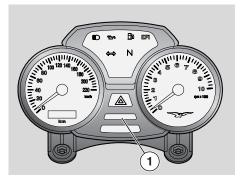
Description		Function		
Multifunction digital display	ter (km - mi)	Indicates the partial or total number of kilometers or miles covered.	data displayed,	
	Clock	Indicates the hour and minutes according to the presetting.	see p. 17 (MULTIFUNCTI ON DIGITAL DISPLAY)	
	External temperature	Indicates the external temperature.		
Speedometer		Indicates the driving speed		



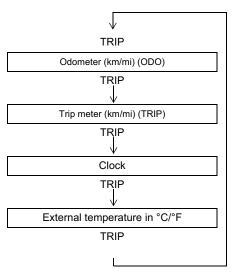
## MULTIFUNCTION DIGITAL DISPLAY

When you turn the ignition key to "\( \)", the following dashboard lights will turn on:

- (Red) engine oil pressure light (☆); this light stays on until you start the engine.
- All segments of the multifunction digital display come on for about 2 seconds to test their operation.
- Afterwards, the display will switch to total km covered indication (ODO).
- The lights of both multifunction display instruments and of the hazard button come on.
- The EFI light turns on for about 3 seconds if the switch is set to " ()".
- The pointers of both instruments go to full scale and then back to zero.



Press the TRIP (1) button repeatedly to display in the order:



#### Odometer (km/mi) (ODO)

Indicates the total number of kilometers or miles covered.

The figure will be stored for at least five years even in case battery is removed.

Each time the key is turned to on, total km covered indication (ODO) is displayed, regardless of which function had been selected previously.

#### Trip meter (km/mi) (TRIP)

Indicates the partial number of kilometers or miles covered.

To reset the trip meter (km/mi), proceed as follows:

press the TRIP button (1) to enter the "TRIP" setting mode: the parameters listed in the table will be displayed in sequence.

Keep the TRIP button (1) pressed for more than 3 seconds.

#### Clock

Set the clock as follows:

Enter the "clock" mode by pressing the TRIP key (1). The display will show the parameters listed in the table at the side in sequence.

Hold down the TRIP key (1) for over 3 seconds.

When you enter the hours setting mode, the hour digits will flash. Press the "TRIP" key and the hours indication will increase by 1 hour each second the key is held down. Three seconds after the "TRIP" key has been released, the hours will stop flashing. When the hours setting is confirmed, you will enter the minutes setting mode automatically. The minutes indication will flash. Press the "TRIP" key and the minutes indication will increase by 1 minute each second the key is held down. Three seconds after the "TRIP" key has been released, the minutes stop flashing and the new setting is confirmed.

**NOTE** The clock setting mode will only work when the motorcycle is at standstill and with the engine stopped.

#### External temperature (°C / °F)

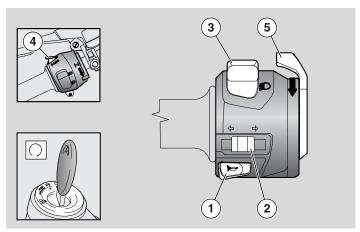
It indicates the external temperature reading. When ambient temperature drops below 3°C, the display will switch to the ICE mode to warn against possible black ice. In this way the air temperature will be flashing on the display, independent of the displayed function. The ICE mode will be enabled for 10 seconds; the display will then go back to the function formerly displayed. If the external temperature continues to be below 3°C, the ICE procedure will be repeated for three times at the maximum, every five minutes.

In case of air temperature sensor faulty operation (damaged or disconnected sensor), two horizontal flashing segments will be displayed.

#### **HAZARD** button operation

Pressing the HAZARD button turns on all four direction indicators at the same time. The HAZARD blinker stays on when the key is removed from the switch, but may not be turned off by simply pressing the hazard button again. In order to switch off the hazard blinker, you must first set the ignition switch to " ()" and then press the HAZARD button.

### MAIN INDEPENDENT CONTROLS



#### **CONTROLS ON LEFT HANDLEBAR**

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

- HORN PUSH BUTTON (►)
   The horn is activated when the push button is pressed.
- 2) **DIRECTION INDICATOR SWITCH ( \( \( \)\)\)**To indicate the turn to the left, move the switch to the left; to indicate the turn to the right, move the switch to the right. To turn off the direction indicator, press the switch.

**NOTE** The indicator repeater light flashing quickly indicates that one or more direction indicator bulbs are burnt out. Please see page 72 (CHANGING THE FRONT AND REAR DIRECTION INDICATOR BULBS) for replacement instructions.

- 3) DIMMER SWITCH ( D D)
  - When on "  $_{\rm ID}$  ", the low beams will be enabled; when on "  $_{\rm ID}$  ", the high beams will be enabled.
- 4) HIGH BEAM FLASHER PASSING (≣○) It allows the use of the high beam flashing in case of danger or emergency.

**NOTE** To disconnect the passing, release the push button.

5) COLD START LEVER ( | \( | \)

initial position.

The starter for the cold start of the engine is operated by rotating the lever " | \ | " downwards.

To disconnect the cold start device, move the lever " | \ | " to its

#### **CONTROLS ON RIGHT HANDLEBAR**

**NOTE** The electrical parts work only when the ignition switch is in position "\( \cap \)".

6) ENGINE STOP SWITCH (∩-⊗)

## **A WARNING**

Do not operate the engine stop switch " $\cap$  -  $\bowtie$ " in running conditions.

This is a safety or emergency switch.

When the switch is in position " $\cap$ ", it is possible to start the engine; the engine can be stopped by moving the switch to position " $\otimes$ ".

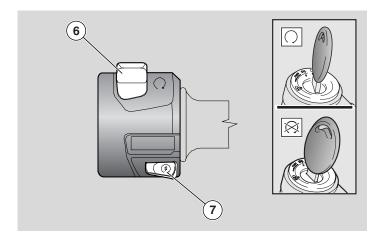
## **A** CAUTION

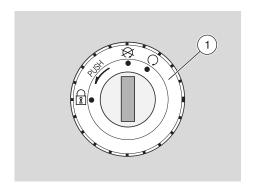
With the engine stopped and the ignition switch in position "○", the battery may discharge.

When the vehicle has come to rest, after stopping the engine, move the ignition switch to position "⋈".

## 7) START PUSH BUTTON (1)

When the start push button "①" is pressed, the starter motor makes the engine run. For the starting, see p. 37 (STARTING).





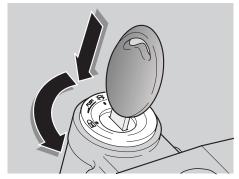
### **IGNITION SWITCH**

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

**NOTE** The key operates the ignition switch/steering lock, the fuel tank lock and the seat lock.

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

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



### **STEERING LOCK**

## **WARNING**

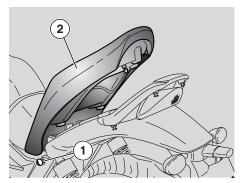
Never turn the key to position " ; " in running conditions, in order to avoid losing control of the vehicle.

#### **OPERATION**

- ◆ To lock the steering:
- ◆ Turn the handlebar completely leftwards.
- ◆ Turn the key to position "⊗".
- ◆ Press the key and rotate it to position " ∩ ".
- ◆ Extract the key.

Position	Function	Key removal
Steering lock	The steering is locked. It is neither possible to start the engine, nor to switch on the lights.	It is possible to remove the key.
$\otimes$	Neither the engine, nor the lights can be switched on.	
$\cap$	The engine and the lights can be switched on.	It is not possible to remove the key.

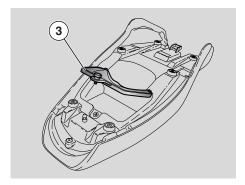
#### **AUXILIARY EQUIPMENT**



#### **UNLOCKING/LOCKING THE SEAT**

- ◆ Position the vehicle on the stand, see p. 44 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Introduce the key (1) in the seat lock.
- ◆ Rotate the key (1) anticlockwise, lift and withdraw the seat (2) from behind.

**NOTE** Before lowering and locking the seat (2), make sure that you have not left the key in the glove/tool kit compartments.



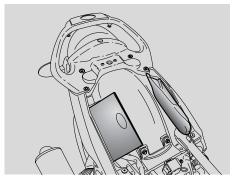
## To lock the seat (2), proceed as follows:

- Introduce its front part in its housing and lower the rear end.
- ◆ Push on the rear end, making the lock snap.

### **A** WARNING

Before leaving, make sure that the seat (2) is properly locked.

Below the seat is a useful compartment for the disc lock (disc lock opt ), gain access to this compartment by releasing and removing flap (3).



GLOVE/TOOL KIT COMPARTMENTS

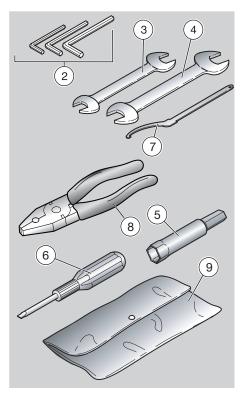
To reach the glove/tool kit compartments, proceed as follows:

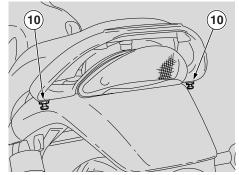
◆ Remove the seat, see p. 22 (UNLOCKING/LOCKING THE SEAT).

#### The tool kit includes:

- 5, 6, 8 mm bent hexagon spanners (2);
- 13 14 mm double fork spanner (3);
- 22 27 mm double fork spanner (4);
- 22 mm socket spanner for spark plug (5);
- double-ended, cross-/cut-headed screwdriver (6);
- shock absorber preload adjustment spanner (7);
- pliers (8)
- 14 mm hexagon adapter
- two tool bags (9).

Maximum allowed weight: 5 kg in the glove compartment and 5 kg in the tool kit compartment.





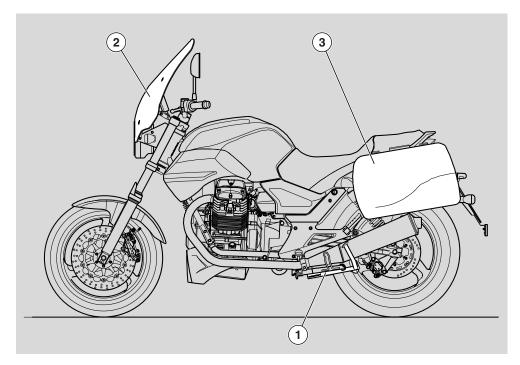
#### **LUGGAGE RACK FASTENINGS**

Small luggage can be anchored to the seat rear end, by means of elastic bands that must be fixed to the two fastenings (10).

Maximum allowed weight: 5 kg.

## **WARNING**

The luggage must have reduced dimensions and must be anchored securely.



## ACCESSORIES OPT

The following accessories are available:

- center stand (1),
- big windshield (2),
- side panniers (3),
- disc lock.

#### **MAIN COMPONENTS**

#### **FUEL**

## **A WARNING**

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

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

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

In case some fuel has accidentally been spilt, make sure that the area has completely dried before starting the vehicle.

Since fuel expands under the heat of the sun and due to the effects of sun radiation, never fill the tank to the rim. Screw the plug up carefully after refuelling. Avoid any contact of the fuel with the skin and the inhalation of vapours; do not swallow fuel or pour it from a receptacle into another by

means of a tube.

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

#### KEEP AWAY FROM CHILDREN.

Use only premium grade unleaded petrol, min. O.N. 95 (N.O.R.M.) and 85 (N.O.M.M.).

## To refuel, proceed as follows:

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

FUEL TANK CAPACITY (reserve included): 18 ℓ

TANK RESERVE: 5 /

## **A** CAUTION

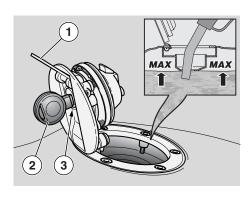
Do not put additives or other substances into the fuel.

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

## **A WARNING**

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

Refuel.



## After refuelling:

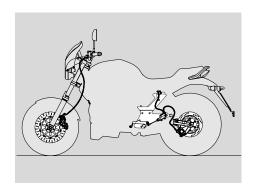
**NOTE** The cap can be closed only when the key (2) is inserted.

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

#### **A WARNING**

Make sure that the cap is properly closed.

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



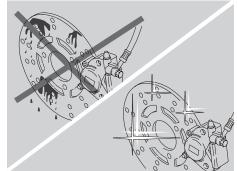


**NOTE** This vehicle is provided with front and rear disc brakes, with separate hydraulic circuits.

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

## **WARNING**

Sudden resistance or clearance problems on the brake lever may be due to troubles in the hydraulic system. For any doubt regarding the perfect operation of the braking system and in case you are not able to carry out the usual checking operations, contact your **Moto Guzzi** Authorised Dealer.



## **A WARNING**

Make sure that the brake discs are neither oily nor greasy, especially after maintenance or checking operations. Check that the brake lines are neither twisted nor worn out.

Prevent water or dust from accidentally getting into the circuit.

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

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



## WARNING

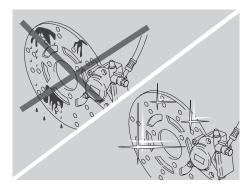
Carefully wash the parts of your body that get in contact with the fluid. Consult a doctor or an oculist if the fluid gets in contact with your eyes.

DO NOT DISPOSE OF THE FLUID IN THE ENVIRONMENT.

**KEEP AWAY FROM CHILDREN.** 

## **A** CAUTION

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



#### **DISC BRAKES**

## **WARNING**

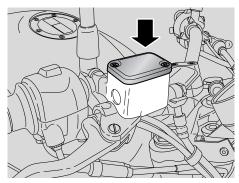
The brakes are the parts that most ensure your safety and for this reason they must always be perfectly working; check them before every trip.

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

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

The brake fluid must be changed every two years by a **Moto Guzzi** Authorised Dealer.

Use brake fluid of the type specified in the lubricant chart, see p. 82 (LUBRICANT CHART).



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

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

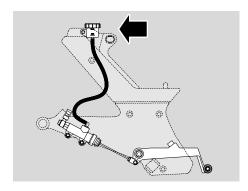
The rear braking system is with single disc (left side).

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

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

The front brake fluid reservoir is located on the right handlebar, near the connection of the front brake lever.

The rear brake fluid reservoir is located behind the footrest bracket, at the righthand side of the motorcycle.



**NOTE** Perform the maintenance operations with half the prescribed frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or for sport.

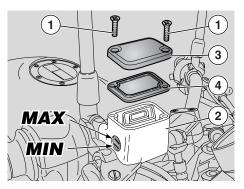
Have the brake discs checked by a **Moto Guzzi** Authorised Dealer after the first 1000 km (625 mi) and then every 2000 km (1243 mi).

Before departure, check the brake fluid level in the reservoirs, see p. 28 (FRONT BRAKE), p. 29 (REAR BRAKE), and the wear of the pads, see p. 57 (CHECKING THE BRAKE PAD WEAR).

Have the brake fluid changed every 20000 km (12427 mi) or every two years by a **Moto Guzzi** Authorised Dealer.

### **WARNING**

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



#### FRONT BRAKE

#### **CHECK**

- ◆ Position the vehicle on the stand, see p. 44 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Turn the handlebar completely rightwards.
- Make sure that the fluid level exceeds the "MIN" mark.

MIN= minimum level

MAX= maximum level

If the fluid does not reach at least the "MIN" mark:

## **A** CAUTION

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

 Check the brake pad wear, see p. 57 (CHECKING THE BRAKE PAD WEAR) and the disc wear. If the pads and/or the disc do not need replacing, provide for topping up.

#### **TOPPING UP**

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

## **A CAUTION**

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

 Unscrew the two screws (1) of the brake reservoir (2) by means of a short, crossheaded screwdriver.

#### **A WARNING**

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

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

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

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

## **A CAUTION**

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

Do not put additives or other subtances into the fluid.

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

 Fill the tank (2) with brake fluid, see p. 82 (LUBRICANT CHART), until reaching the correct level between the "MIN" and "MAX" marks.

#### **A** CAUTION

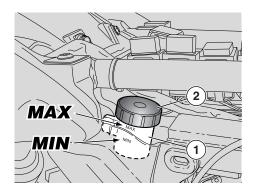
Do not exceed the "MAX" level while topping up.

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

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

Check the braking efficiency.

In case of excessive stroke of the brake lever or reduced efficiency of the braking system, contact a **Moto Guzzi** Authorised Dealer, since it may be necessary to bleed the system.



#### **REAR BRAKE**

#### CHECK

- ◆ Keep the vehicle in vertical position, so that the fluid contained in the tank (1) is parallel to the plug (2).
- ◆ Make sure that the fluid in the reservoir. is above the "MIN" level mark.

MIN= minimum level

MAX= maximum level

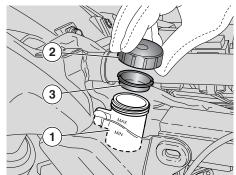
If the fluid does not reach at least the "MIN" mark:

## **A CAUTION**

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

◆ Check the brake pad wear, see p. 57 (CHECKING THE BRAKE PAD WEAR) and the disc wear.

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



#### **TOPPING UP**

Carefully read p. 26 (BRAKE FLUID recommendations).

## **A CAUTION**

The brake fluid may flow out of the tank. Do not operate the rear brake lever if the brake fluid tank plug is loose or has been removed.

## **WARNING**

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

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

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

◆ Unscrew and remove the plug (2).

## **A** CAUTION

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

Do not put additives or other substances into the fluid.

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

- ◆ Remove the gasket (3).
- ◆ Top up the reservoir (1) by adding brake fluid, see p. 82 (LUBRICANT CHART), until reaching the correct level included between the "MIN" and "MAX" marks.

## **A** CAUTION

It is advisable to top up until reaching the "MAX" level only with new pads. Do not reach the "MAX" level with worn out pads, since this will cause a fluid outflow when the pads are changed.

Check the braking efficiency.

In case of excessive stroke of the brake lever or reduced efficiency of the braking system, contact a Moto Guzzi Authorised Dealer, since it may be necessary to bleed the system.

#### **TYRES**

This vehicle is provided with tubeless tyres.

**NOTE** Perform the maintenance operations with half the frequency indicated if the vehicle is used in rainy or dusty areas, on uneven surfaces or for sport.

## **WARNING**

Check the inflation pressure at room temperature every two weeks.

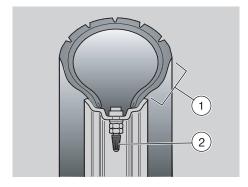
Check the conditions of the tyres and the inflation pressure at room temperature after the first 1000 km (625 mi) and then every 7500 km (4687 mi), see p. 79 (TECHNICAL DATA).

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

Carry out the measurement especially before and after long rides.

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

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



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

Further, the vehicle could skid while turning.

## **A WARNING**

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

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

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

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

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

After repairing a tyre, have the wheels balanced.

#### **A** WARNING

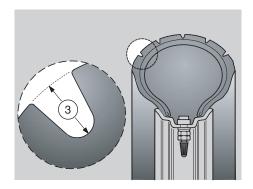
The tyres must be replaced with other tyres of the type and model recommended by the manufacturer, see p. 79 (TECHNICAL DATA); the use of tyres different from those prescribed may affect the manoeuvrability of the vehicle.

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

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

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

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



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

In this case, replace them.

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

front and rear 2 mm ( 3 mm) and in any case not less than prescribed by the regulations in force in the country where the vehicle is used.

#### **ENGINE OIL**

## **A WARNING**

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

Wash your hands carefully after use. KEEP AWAY FROM CHILDREN.

DO NOT DISPOSE OF THE OIL IN THE ENVIRONMENT.

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

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

### **A** CAUTION

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

In this case, check the engine oil level, see p. 49 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP); if the level is not correct, stop the engine immediately and contact a **Moto Guzzi** Authorised Dealer.



## **A** CAUTION

Proceed with care.

Do not spill the oil!

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

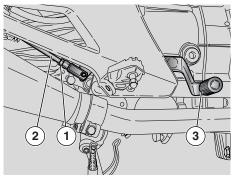
In case of leakages or malfunctions, contact a **Moto Guzzi** Authorised Dealer.

Periodically check the engine oil level, see p. 49 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP).

For the engine oil change, see p. 46 (REGULAR SERVICE INTERVALS CHART) and p. 51 (CHANGING THE ENGINE OIL AND THE OIL FILTER).

**NOTE** Use high-quality oil, see p. 82 (LUBRICANT CHART).

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# ADJUSTING THE REAR BRAKE CONTROL LEVER CLEARANCE

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

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

- ◆ Loosen the lock nut (1).
- Unscrew the master cylinder control rod

   (2) to ensure a minimum clearance of
   0.5 1 mm between the rod and the master cylinder piston.

## **A** CAUTION

Make sure that there is a certain idle stroke in the movement of the lever (3), to prevent the brake from remaining applied and the consequent untimely wear of the braking elements.

Lever (3) idle stroke: 4 mm (measured at the lever end).

◆ Lock the pump control rod (2) by means of the lock nut (1).

## **A** CAUTION

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

Check the braking efficiency.

If necessary, contact your **Moto Guzzi** Authorised Dealer.

# EXHAUST MUFFLER/EXHAUST SILENCER

## **A WARNING**

Tampering with the noise control system is prohibited.

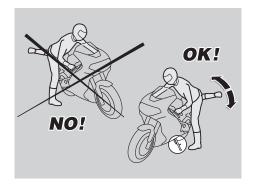
Owners are warned that the law may forbid:

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

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

If the noise produced by the exhaust system increases, immediately contact your **Moto Guzzi** Authorised Dealer.

#### INSTRUCTIONS FOR USE





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

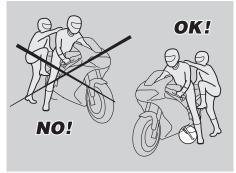
## **A WARNING**

Risk of falling and overturning.

#### Proceed with care.

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

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



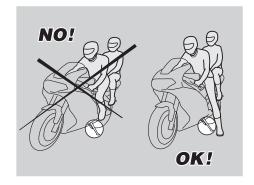
## **A CAUTION**

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

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

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

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





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

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

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

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

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

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

In any case, perform a controlled

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

#### **GETTING ON THE VEHICLE**

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

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

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

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

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

#### **GETTING OFF THE VEHICLE**

- ◆ Choose the parking area, see p. 43 (PARKING).
- ◆ Stop the vehicle, see p. 43 (STOPPING).

### **WARNING**

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

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

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

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

## **WARNING**

Risk of falling and overturning.

Make sure that the passenger has got off the vehicle.

Do not load your weight onto the side stand.

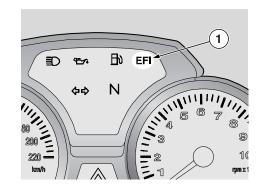
- Incline the vehicle until the stand rests on the ground.
- Grasp the handlebar correctly and get off the vehicle.
- ◆ Rotate the handlebar completely leftwards.
- ◆ Lift the passenger footpegs.

## **A** CAUTION

Make sure that the vehicle is stable.







# PRELIMINARY CHECKING OPERATIONS

## **WARNING**

Before departure, always carry out a preliminary check of the vehicle to make sure that it functions correctly and safely, see p. 36 (PRELIMINARY CHECKING OPERATIONS TABLE).

Failure to perform these checking operations can cause severe personal injuries or damages to the vehicle.

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

It does not take long to carry out a checkup and this operation ensures you much more safety. **NOTE** This vehicle is set so that any anomaly stored by the electronic control unit can be detected in real time.

Whenever the ignition switch is brought to position "  $\bigcirc$  ", the writing " EFI" (1) appears on the right side of the multifunction display for approximately three seconds.

The writing "*EFI* " (1) is also displayed for three seconds after start-up, signalling that the operation of the injection system is being checked.

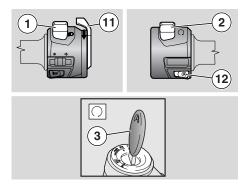
## **A** CAUTION

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

In many cases, the engine keeps running with reduced performance levels; immediately contact a **Moto Guzzi** Authorised Dealer.

#### PRELIMINARY CHECKING OPERATIONS TABLE

Component	Check	Pag.
Front and rear disc brakes	Check the functioning, the idle stroke of the control levers, the fluid level and make sure there are no leaks.  Check the wear of the pads.  If necessary, top up the fluid reservoir.	26, 27, 28, 29, 57
Throttle	Make sure that it works smoothly and that it is possible to open and close it completely, in all steering positions. If necessary, adjust and/or lubricate it.	58
Engine oil	Check and/or top up if necessary.	31, 49
Wheel/tyres	Check the tyre surface, the inflation pressure, wear and any damage. Remove any foreign matter that may be stuck in the tread grooves.	30
Brake levers	Make sure that they work smoothly. Lubricate the joints if necessary (rear brake control).	-
Clutch	Check the operation of the clutch, the idle stroke of the control lever (with engine cold, it must have less than 1 mm of clearance).  The clutch must operate without jerking and/or slipping.	-
Steering	Make sure that the steering rotates smoothly, without any clearance or slackening.	-
Side stand	Make sure that it operates correctly. Make sure that when the stand is let up or down there is no friction and that the spring tension brings it back to its normal position.  If necessary, lubricate joints.	61, 67
Fastening elements	Make sure that the fastening elements are not loose. If necessary, adjust or tighten them.	-
Fuel tank	Check the fuel level and top up, if necessary. Check the circuit for leaks. Make sure that the fuel cap is correctly closed.	25
Engine stop switch ( ∩ - ⊗ )	Make sure that it operates correctly.	20
Lights, warning lights, horn, rear stoplight switch and electric devices	Check the proper functioning of the acoustic and visual devices. Change the bulbs or intervene in case of failure.	71, 72, 73, 74
Transmission fluid Check.	Should topping up be necessary, contact a <b>Moto Guzzi</b> Authorised Dealer.	54



#### **STARTING**

# **A WARNING**

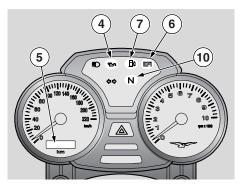
This vehicle is considerably powerful and must be used gradually and with the greatest care.

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

**NOTE** Before starting the engine, carefully read chapter "Safe drive", see p. 5 (SAFE DRIVE).

## **A WARNING**

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



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

Failure to observe this warning may cause loss of consciousness or even lead to death by asphyxia.

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

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

- Get on the vehicle in riding position, see p. 33 (GETTING ON AND OFF THE VEHICLE).
- ◆ Make sure that the stand is completely up.

- ◆ Make sure that the dimmer switch (1) is in position " 

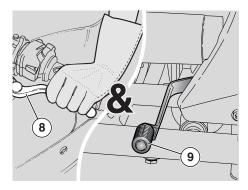
  □ ".
- ◆ Move the engine stop switch (2) to position " ○ ".
- ◆ Rotate the key (3) and move the ignition switch to position "○".

## At this point:

- the pointers of both instruments go to full scale and then back to zero.
- the engine oil pressure warning light (red)
   " ₹ " (4) comes on on the instrument panel and remains on until the engine has been started;
- the multifunction digital display (5) performs a digit test by turning them all on for about two seconds, and then displays total km covered (ODO);
- whenever the ignition switch is turned to position " )" the warning light " EF! " (6) comes on for three seconds;
- the fuel pump will pressurize the fuel supply circuit, sending out a hum for about three seconds.

# **A** CAUTION

If the low fuel warning light "□" (7) comes on on the instrument panel, 5 \( \rho \) fuel are still available. Provide for topping up as soon as possible, see p. 25 (FUEL).



- Lock at least one wheel, by pulling a brake lever.
- ◆ Pull the clutch lever (8) completely and shift the gearbox lever (9) into neutral [green warning light "N" (10) on].
- ♦ If the vehicle is started with cold engine, rotate the cold start lever "|x|" (11) downwards.

## **A CAUTION**

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

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

◆ Press the start push button "⑤" (12) without accelerating and release it as soon as the engine starts.

# **A** CAUTION

Avoid pressing the start push button "()" (12) when the engine is running, since you may damage the starter motor.

If the engine oil pressure warning light " " (4) remains on, or if it comes on during the normal operation of the engine, this means that the oil pressure in the circuit is insufficient.

In this case, stop the engine immediately and contact a **Moto Guzzi** Authorised Dealer.

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

# **A** CAUTION

Never leave abruptly with cold engine.

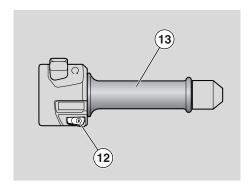
To reduce the emission of polluting substances and the consumption of fuel, warm the engine up by proceeding at low speed for the first miles.

◆ Rotate the cold start lever "| \ |" (11) upwards after the engine has warmed up.

# **A** CAUTION

If the writing "EF!" (6) appears, on the instrument panel during the normal operation of the engine, this means that the electronic unit has detected an anomaly.

In many cases, the engine keeps running with reduced performance levels; immediately contact a **Moto Guzzi** Authorised Dealer.



#### STARTING WITH COLD ENGINE

If the room temperature is low (near to or lower than 0°C/32°F), it may be difficult to start the vehicle at the first attempt.

#### In this case:

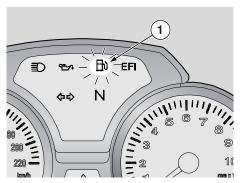
- ◆ Rotate the cold start lever "|\|" (11) downwards.
- ◆ Insist for at least ten seconds with the start push button "(1)" (12) pressed and at the same time moderately rotate the throttle grip (13).

### If the engine starts:

- ◆ Release the start push button "()" (12) and the throttle grip (13).
- ◆ Rotate the cold start lever "|ҳ|" (11) upwards.
- If the idling is unstable, twist the throttle grip (13) slightly and frequently.

## If the engine does not start:

Wait a few seconds and repeat the COLD START PROCEDURE.



#### **DEPARTURE AND DRIVE**

# **A WARNING**

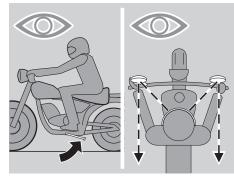
This vehicle is considerably powerful and must be used gradually and with the greatest care.

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

**NOTE** Before departure, carefully read the "Safe drive" chapter, see p. 5 (SAFE DRIVE).

# **A** CAUTION

If the low fuel warning light " (1) positioned on the instrument panel comes on while the vehicle is running, this means that 5 / of fuel are still available in the tank.



Provide for topping up as soon as possible, see p. 25 (FUEL).

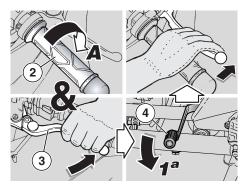
# **WARNING**

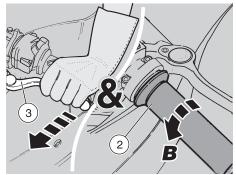
If you drive without passenger, make sure that the passenger footpegs are folded.

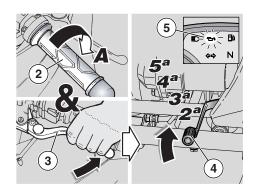
While riding, keep your hands on the grips and your feet on the footpegs.

NEVER RIDE IN ANY POSITION OTHER THAN THOSE INDICATED.

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# **A WARNING**

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

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

### To leave:

- ◆ Start the engine, see p. 37 (STARTING).
- Adjust the inclination of the rear-view mirrors correctly.
- With released throttle grip (2) (Pos.A) and engine idling, pull the clutch lever (3) completely.
- ◆ Engage the first gear, by pushing the gear lever (4) downwards.
- ◆ Release the brake lever (pulled on the starting).

# **A WARNING**

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

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

◆ Slowly release the clutch lever (3) and at the same time accelerate by rotating the throttle grip moderately (2) (Pos.B).

The vehicle will start moving.

◆ Ride at reduced speed for the first kilometres/miles, in order to warm the engine up.

# **A** CAUTION

Never exceed the recommended rpm, see p. 55 (RUNNING-IN).

 Increase the speed by gradually rotating the throttle grip (2) (Pos.B), without exceeding the recommended rpm, see p. 42 (RUNNING-IN).

To engage the second gear:

## **A** CAUTION

Proceed quickly.

Never ride the vehicle at too low rpm.

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

## **A** CAUTION

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

In this case, stop the engine immediately and contact a **Moto Guzzi** Authorised Dealer.

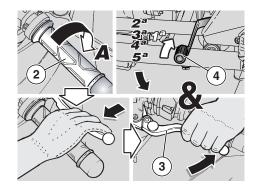
The downshifting should be carried out in the following situations:

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

# **A** CAUTION

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

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



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

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

# **A** CAUTION

If the writing " EF| " appears, on the instrument panel during the normal operation of the engine, this means that the electronic unit has detected an anomaly.

In many cases, the engine keeps running with reduced performance levels; immediately contact a **Moto Guzzi** Authorised Dealer.

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

## **WARNING**

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

By pulling the front brake only or the rear brake only, you reduce the braking force considerably, thus running the risk of locking one wheel and consequently losing grip.

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

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

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

If the brakes are operated continuously on downhill stretches, the friction surfaces may overheat, thus reducing the braking efficiency. Exploit the engine compression and shift down by pulling both brakes intermittently.

Never drive downhill with the engine off!

In case of wet ground or scarce wheel grip (snow, ice, mud, etc.), drive slowly, avoiding sudden brakings or manoeuvres that could make you lose grip and fall down.

# **A WARNING**

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

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

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

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

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

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

#### **RUNNING-IN**

The running-in of the engine is essential to ensure its duration and correct functioning.

If possible, drive on hilly roads and/or roads with many bends, so that the engine, the suspensions and the brakes undergo a more effective running-in.

During running-in, change speed.

In this way the components are first "loaded" and then "relieved" and the engine parts can thus cool down.

Even if it is important to stress the engine components during running-in, take care not to exceed.

**NOTE** Only after the first 2000 km (1243 mi) of running-in you can expect the best performance levels from the vehicle.

## Keep to the following indications:

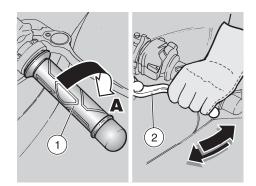
- ◆ Do not open the throttle completely if the speed is low, both during and after the running-in.
- ◆ During the first 100 km (62 mi) pull the brakes with caution, avoiding sharp and prolonged brakings. This ensures a correct bedding-in of the pads on the brake disc.
- ◆ During the first 1000 km (625 mi) never exceed 5000 rpm.

## **A WARNING**

After the first 1000 km (625 mi), have a Moto Guzzi Authorised Dealer carry out the checks indicated in the column "After running-in" of the regular service intervals chart, see p. 46 (REGULAR SERVICE INTERVALS CHART), in order to avoid hurting yourself or other people and/or damaging the vehicle.

- ◆ Between the first 1000 (625 mi) and 2000 km (1243 mi) drive more briskly, change speed and use the maximum acceleration only for a few seconds. in order to ensure better coupling of the components; never exceed 6000 rpm (see table).
- ◆ After the first 2000 km (1243 mi) you can expect better performance from the engine, however, without exceeding the maximum allowed (7600 rpm).

Engine maximum rpm recommended			
Mileage km (mi)	giri/min (rpm)		
0 – 1000 (0 – 625)	5000		
1000 – 2000 (625 – 1243)	6000		
over 2000 (1243)	7600		



#### **STOPPING**

# **A WARNING**

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

◆ Release the throttle grip (1) (Pos.A), gradually pull the brakes and at the same time shift down in order to decrease the speed, see p. 52 (DEPARTURE AND DRIVE).

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

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

When the vehicle has come to rest:

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

#### **PARKING**

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

## **A WARNING**

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

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

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

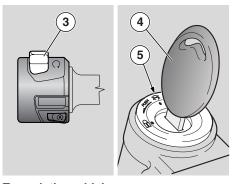
## **WARNING**

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

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

## **A** CAUTION

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



## To park the vehicle:

- ◆ Choose a suitable parking area.
- ◆ Stop the vehicle, see p. 43 (STOPPING).
- ◆ Move the engine stop switch (3) to position "⋈".
- ◆ Rotate the key (4) and move the ignition switch (5) to position "⋈".

## **WARNING**

When getting on or off the vehicle, keep to the instructions given, see p. 33 (GETTING ON AND OFF THE VEHICLE).

- Following the indications, wait until the passenger has got off the vehicle before getting off.
- ◆ Lock the steering, see p. 21 (STEERING LOCK) and extract the key (4).

### **A WARNING**

Make sure that the vehicle is stable.



# POSITIONING THE VEHICLE ON THE STAND

### SIDE STAND

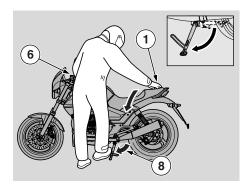
To place the vehicle on the side stand while seated astride the vehicle, see p. 33 (GETTING ON AND OFF THE VEHICLE).

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

## **A WARNING**

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

- ◆ Choose a suitable parking area, see p. 43 (PARKING).
- ◆ Grasp the left grip (6) and rest your right hand on the rear upper part of the vehicle (7).



- ◆ Press the side stand (8) with your right foot and extend it completely.
- ◆ Incline the vehicle until the stand rests on the ground.
- ◆ Steer the handlebar completely leftwards.

## WARNING

Make sure that the vehicle is stable.

# SUGGESTIONS TO PREVENT THEFT

NEVER leave the ignition key inserted and always use the steering lock.

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

When possible, use an additional anti-theft device.

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

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

CLIDALARAE

SURNAME:
NAME:
ADDRESS:
TELEPHONE NO :

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

## **MAINTENANCE**

## **A WARNING**

Risk of fire.

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

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

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

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

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

# **A** CAUTION

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

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

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

In case periodic maintenance operations, assistance or technical advice are needed, contact a **Moto Guzzi** Authorised Dealer, who will ensure you prompt and accurate servicing.

Ask your **Moto Guzzi** Authorised Dealer to test the vehicle on the road after a repair or periodic maintenance operation.

In any case, personally carry out the "Preliminary checking operations" after any maintenance operation, see p. 36 (PRELIMINARY CHECKING OPERATIONS TABLE).

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

Whenever the ignition switch is brought to position "  $\bigcirc$  ", the writing " <code>FFI</code> " (1) appears on the instrument panel for approximately three seconds.

# **A** CAUTION

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

In many cases, the engine keeps running with reduced performance levels; immediately contact a **Moto Guzzi** Authorised Dealer.

#### **REGULAR SERVICE INTERVALS CHART**

OPERATIONS TO BE CARRIED OUT BY THE **Moto Guzzi** Authorised Dealer (WHICH CAN BE CARRIED OUT EVEN BY THE USER).

After running-in [1000 km (625 mi)]	Every 7500 km (4687 mi) or 12 months	Every 15000 km (9375 mi) or 24 months
	3	
3	3	
0		0
	0	
0	0	
•		
	①	
3	3	
0	①	
4	4	
4	4	
0		
4		
	at every start: ①	
0	① before every trip and every 2000 km (1243 mi): ①	
	km (625 mi)]       3       0       3       0       4       4       0       4       0	km (625 mi)]     or 12 months       ③     ③       ①     ①       ①     ①       ①     ①       ③     ③       ③     ③       ①     ①       ④     ④       ④     ④       ①     ④       at every start: ①

① = check and clean, adjust, lubricate or change, if necessary; ② = clean; ③ = change; ④ = adjust.

Perform the maintenance operations more frequently than indicated if the vehicle is used in rainy or dusty areas, on uneven surfaces or for sport.

<sup>(\*) =</sup> In case of sport use, change every 3750 km (2343 mi).

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

### OPERATIONS TO BE CARRIED OUT BY THE Moto Guzzi Authorised Dealer.

Component	After running-in [1000 km (625 mi)]	Every 7500 km (4687 mi) or 12 months	Every 15000 km (9375 mi) or 24 months	
Gearbox fluid	3	3		
Idle mixture (CO)		0		
Transmission cables and controls	0	0		
Steering bearings and steering clearance	0	0		
Wheel bearings		0		
Brake discs	0	0		
Air cleaner		0	3	
General running of the vehicle	0	0		
Braking systems	0	0		
Brake fluid	every	every 2 years: ③ or 20000 km (12427 mi)		
Fork oil	after the first 7500 km	after the first 7500 km (4687 mi) and then every 22500 km (14000 mi): ③		
Fork oil seals	after the first 30000 km	after the first 30000 km (18750 mi) and then every 22500 km (14000 mi): ③		
Brake pads	ever	every 2000 km/1243 mi: ① - if worn: ③		
Valve clearance adjustment	4	4		
Wheel/Tyres		Φ		
Nut, bolt, screw tightening	0			
Battery terminals tightening	0			
Cylinder synchronization	0	0		

① = check and clean, adjust, lubricate or change, if necessary (according to workshop manual specifications); ② = clean; ③ = change; ④ = adjust. Perform the maintenance operations more frequently than indicated if the vehicle is used in rainy or dusty areas, on uneven surfaces or for sport.

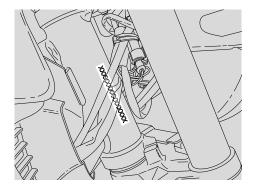
<sup>(\*) =</sup> In case of sport use, change every 3750 km (2343 mi).

Component	After running-in [1000 km (625 mi)]	Every 7500 km (4687 mi) or 12 months	Every 15000 km (9375 mi) or 24 months
Suspensions and setting	0		0
Final transmission oil	3	3	
Fuel pipes		0	every 4 years: ③
Brake lines		0	every 4 years: ③
Clutch wear (*)		0	

① = check and clean, adjust, lubricate or change, if necessary (according to workshop manual specifications); ② = clean; ③ = change; ④ = adjust.

Perform the maintenance operations more frequently than indicated if the vehicle is used in rainy or dusty areas, on uneven surfaces or for sport.

<sup>(\*) =</sup> In case of sport use, change every 3750 km (2343 mi).



#### **DENTIFICATION DATA**

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

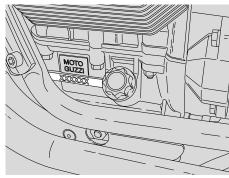
The frame number can be used for the purchase of spare parts.

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

#### FRAME NUMBER

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

Frame no.



#### **ENGINE NUMBER**

The engine number is stamped on the left side close to the plug/oil level dipstick.

Engine no.

# JOINTS WITH CLAMPS AND WITH SCREW CLAMPS

# **A** CAUTION

Remove ONLY the clamps indicated in the maintenance procedures.

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

# **WARNING**

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

#### **SCREW CLAMPS**

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

# **A CAUTION**

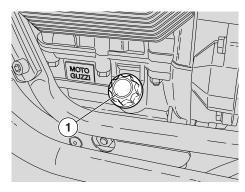
Check the conditions of the clamp and if necessary replace it with a new one of the same type and dimensions, to be requested to a **Moto Guzzi** Authorised Dealer.

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

# CHECKING THE ENGINE OIL LEVEL AND TOPPING UP

Carefully read p. 31 (ENGINE OIL) and p. 45 (MAINTENANCE).

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



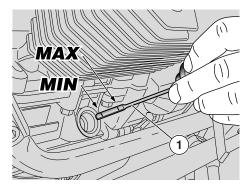
Periodically check the engine oil level, change the oil every 7500 km (4687 mi), see p. 51 (CHANGING THE ENGINE OIL AND THE OIL FILTER).

For the check, proceed as follows:

# **A CAUTION**

The engine oil level must be checked with warm engine and using the oil level dipstick (1) fully home.

If the check is carried out with cold engine, the oil level may temporarily get below the "MIN" mark.



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

- ◆ Stop the engine, see p. 56 (STOPPING).
- ◆ Keep the vehicle in vertical position, with the two wheels resting on the ground.
- ◆ Undo filler plug/oil level dipstick (1).
- ◆ Check the oil level with dipstick (1).

MAX = maximum level

MIN = minimum level.

The difference between "MAX" and "MIN" amounts to approximately 400 cu. cm.

◆ The level is correct when the oil almost reaches the "MAX" mark.

# **A** CAUTION

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

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

◆ Unscrew and remove the filler plug (1).

# **A** CAUTION

Do not put additives or other substances into the oil.

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

**NOTE** Use high-quality 15W - 50 oil, see p. 82 (LUBRICANT CHART).

Top up and restore the correct level, see p. 82 (LUBRICANT CHART).

# CHANGING THE ENGINE OIL AND THE OIL FILTER

## **A** CAUTION

The engine oil and the oil filter change operations may be difficult for unskilled operators.

If necessary, contact your **Moto Guzzi** Authorised Dealer.

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

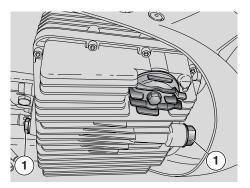
Carefully read p. 31 (ENGINE OIL) and p. 45 (MAINTENANCE).

**NOTE** Perform the maintenance operations with half the frequency indicated if the vehicle is used in rainy or dusty areas, on uneven surfaces or for sport.

Periodically check the engine oil level, see p. 49 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP) change the oil every 7500 km (4687mi).

To change, proceed as follows:

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

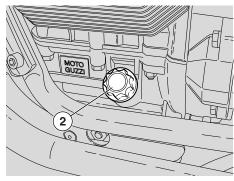


## **A** CAUTION

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

- ◆ Position a container with more than 4000 cu. cm. capacity under the drain plugs (1).
- ◆ Unscrew and remove the drain plugs (1).
- ◆ Unscrew and remove the filling cap (2).
- Drain the oil and let it drip into the container for a few minutes.
- ◆ Check and if necessary replace the sealing washers of the drain plugs (1).
- ◆ Remove the metal residues from the drain plug (1) magnet.
- ◆ Screw and tighten the drain plugs (1).

Drain plugs (1)driving torque: 12 Nm (1.2 kgm).



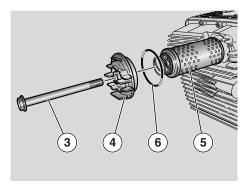
# **A** CAUTION

Do not dispose of oil in the environment. Put it in a sealed container and take it to the filling station where you usually buy it or to an oil salvage center.

#### CHANGING THE ENGINE OIL FILTER

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

Change the engine oil filter after the first 7500 km (4687 mi) (or every time you change the oil).



- Unscrew the screw (3) and remove the cover (4).
- ◆ Remove the engine oil filter (5).

# **A CAUTION**

Do not use filters that have already been used.

- Spread an oil film on the sealing ring (6) of the new engine oil filter.
- ◆ Fit the new engine oil filter with the spring facing downwards.
- ◆ Put back the cover (4), screw and tighten the screw (3).

#### **FRONT WHEEL**

# **A** CAUTION

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

If necessary, contact a **Moto Guzzi** Authorised Dealer.

# **A WARNING**

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

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

#### **REAR WHEEL**

# **A** CAUTION

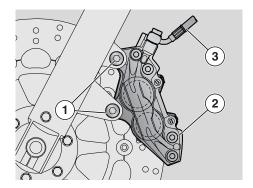
The disassembly and reassembly of the rear wheel may be difficult for unskilled operators.

If necessary, contact a **Moto Guzzi** Authorised Dealer.

## **A WARNING**

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

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



### **FRONT BRAKE CALIPER**

Carefully read p. 45 (MAINTENANCE).

# **A WARNING**

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

# **A** CAUTION

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

**NOTE** To remove the front brake caliper, it is necessary to keep the vehicle in vertical position and on a level ground, with the front wheel raised from ground.

#### DISASSEMBLY

# **A** CAUTION

Make sure that the vehicle is stable.

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

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

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

## **A CAUTION**

Never pull the brake lever after removing the caliper, otherwise the pistons may go out of their seats, thus causing the outflow of the brake fluid.

In this case consult your **Moto Guzzi** Authorised Dealer, who will carry out the proper maintenance operation.

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

#### REASSEMBLY

# **A CAUTION**

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

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

# **WARNING**

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

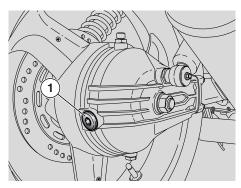
◆ Screw and tighten the two screws (1) that fasten the brake caliper.

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

◆ Carefully remove the support.

# **A** CAUTION

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



# CHECKING THE CARDAN SHAFT OIL LEVEL

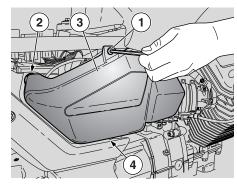
**NOTE** Perform the maintenance operations with half the frequency indicated if the vehicle is used in rainy or dusty areas or on uneven surfaces.

Check cardan shaft oil level at regular intervals. Change the oil after the first 1000 km (625 mi) and then every 7500 km (4687 mi).

# To check oil level proceed as follows:

- Keep the vehicle in vertical position, with the two wheels resting on the ground.
- ◆ Undo and remove the dip stick cap (1).
- Check that oil skims the dip stick cap (1) hole. Top up if the oil is below the recommended level.

To top up or change cardan shaft oil, contact a **Moto Guzzi** Authorised Dealer.



# REMOVING THE SIDE BODY PANELS

- Remove the rider seat, see p. 22 (UNLOCKING/LOCKING THE SEAT).
- ◆ Unscrew and remove the screw (1).

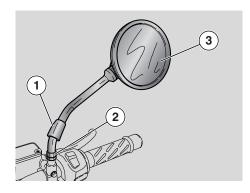
# **A** CAUTION

Handle plastic and paint-finished parts with care to avoid scratching or damage.

- Carefully release pin (2) from its rubber fastener.
- ◆ Remove the side body panel (3).

**NOTE** Upon reassembly, make sure that the reference pin (4) is positioned correctly.

Repeat these operations to remove the other side body panel.



#### **REMOVING THE REAR-VIEW MIRRORS**

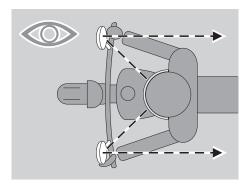
- ◆ Position the vehicle on the stand, see p. 44 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Raise protection rubber (1) and turn lock nut (2).

# **A** CAUTION

Handle plastic and paint-finished parts with care to avoid scratching or damage.

◆ Remove the rear-view mirror (3).

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

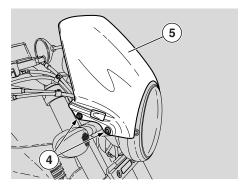


# **A CAUTION**

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

# After reassembly:

◆ Position rubber protection (1) correctly.



### **REMOVING THE FRONT FAIRING**

- ◆ Position the vehicle on the stand, see p. 44 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the two bottom screws (4).

# **A** CAUTION

Upon reassembly, tighten the screws (4) moderately, since they are fixed on plastic.

# **A** CAUTION

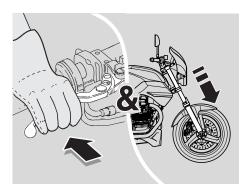
Handle plastic and paint-finished parts with care to avoid scratching or damage.

◆ Remove the complete front fairing (5).

### After reassembly:

◆ Make sure that front fairing is securely fitted to vehicle.

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# INSPECTING THE FRONT AND REAR SUSPENSIONS

Carefully read p. 45 (MAINTENANCE).

**NOTE** Have the front fork oil changed by a **Moto Guzzi** Authorised Dealer, who will ensure you prompt and accurate servicing.

**NOTE** Perform the maintenance operations with half the frequency indicated if the vehicle is used in rainy or dusty areas, on uneven surfaces or for sport.

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

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

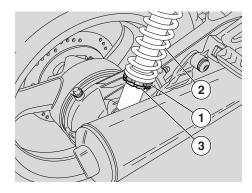
- With pulled front brake lever, press the handlebar repeatedly, thrusting the fork downwards. The stroke must be gentle and there must be no trace of oil on the legs.
- Check the fastening of all the components and the functionality of the front and rear suspension joints.

# **A** CAUTION

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

#### FRONT SUSPENSION

◆ Have the fork oil seals changed by a Moto Guzzi Authorised Dealer after the first 30000 km (18750 mi) and then every 22500 km (14000 mi).



#### **REAR SUSPENSION**

For the adjustment of the setting, the shock absorber is provided with a ring nut adjuster (1) for spring (2) preload, and with a locking ring nut (3).

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

### ADJUSTING THE REAR SHOCK **ABSORBER**

**NOTE** Perform the maintenance operations with half the frequency indicated if the vehicle is used in rainy or dusty areas, on uneven surfaces or for sport.

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

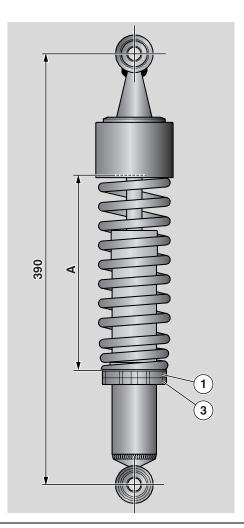
## **A** CAUTION

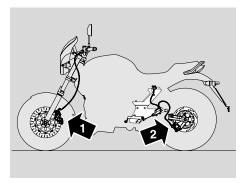
Do not force the rotation of the adjuster (1) beyond the end of stroke in both directions, in order to avoid any damage.

- ◆ Unscrew the locking ring nut (3) by means of the appropriate spanner.
- ◆ Using the special pin wrench of the tool bag, turn ring nut (1) to adjust spring (A) pre-load (see table).
- ◆ Screw to increase pre-load; loosen to decrease it.
- ◆ After the adjustment, tighten the ring nut (3).

## **A** CAUTION

To ensure vehicle stability, make sure that both rear shock absorbers are adjusted in the same position. If necessary, contact a Moto Guzzi Authorised Dealer.





## **CHECKING THE BRAKE PAD WEAR**

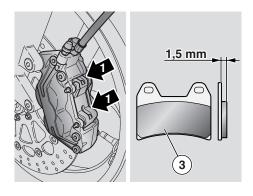
Carefully read p. 26 (BRAKE FLUID recommendations), p. 27 (DISC BRAKES) and p. 45 (MAINTENANCE).

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

NOTE Perform the maintenance operations with half the frequency indicated if the vehicle is used in rainy or dusty areas, on uneven surfaces or for sport.

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

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

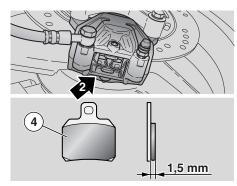


# **A WARNING**

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

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

- ◆ Position the vehicle on the stand, seep. 44 (POSITIONING THE VEHICLE ON THE STAND).
- Carry out a visual check between the disc and the pads, proceeding:
- from above, on the rear part, for the front brake calipers (1);
- from below, on the rear part, for the rear brake caliper (2).



# **A WARNING**

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

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

## **A WARNING**

Have the pads changed by your **Moto Guzzi** Authorised Dealer.

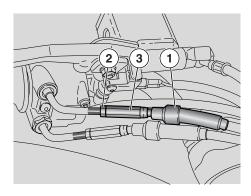
# ADJUSTING THE THROTTLE CONTROL

Carefully read p. 45 (MAINTENANCE).

**NOTE** Perform the maintenance operations with half the frequency indicated if the vehicle is used in rainy or dusty areas, on uneven surfaces or for sport.

Have the throttle control cables checked by a **Moto Guzzi** Authorised Dealer after the first 1000 km (625 mi) and then every 7500 km (4687 mi).

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

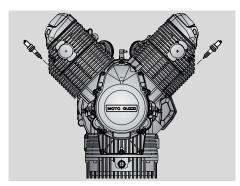


## If not, proceed as follows:

- Position the vehicle on the stand, see p. 44 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Withdraw the protection element (1).
- ◆ Loosen the lock nut (2).
- ◆ Rotate the adjuster (3) in such a way as to restore the prescribed value.
- ◆ After the adjustment, tighten the lock nut
   (2) and check the idle stroke again.
- ◆ Put back the protection element (1).

# **A** CAUTION

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



#### **SPARK PLUGS**

Carefully read p. 45 (MAINTENANCE).

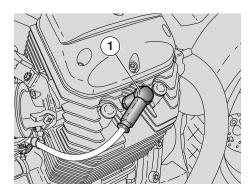
**NOTE** Perform the maintenance operations with half the frequency indicated if the vehicle is used in rainy or dusty areas, on uneven surfaces or for sport.

# **A** CAUTION

Check, clean or change spark plugs, one by one.

Change the spark plugs every 10000 km (6214 mi).

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



# **A** CAUTION

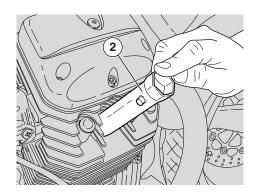
Even if only one spark plug needs changing, always replace all of them.

# **WARNING**

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

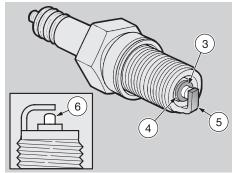
The following operations refer to the spark plugs of one cylinder, but are valid for both cylinders.

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## For the removal, proceed as follows:

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



For the check and cleaning:

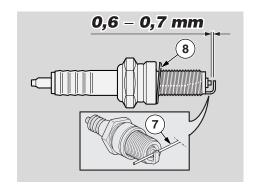
# **A** CAUTION

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

### Key:

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

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



# **A** CAUTION

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

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

Use the recommended type of spark plugs only, see p. 79 (TECHNICAL DATA), in order not to compromise the life and performance of the engine.

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

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

## **A** CAUTION

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

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

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

#### For the installation:

- With the washer (8) on, screw the spark plug by hand in order not to damage the thread.
- ◆ Tighten the spark plug by means of the spanner you will find in the tool kit, giving it half a turn to compress the washer.

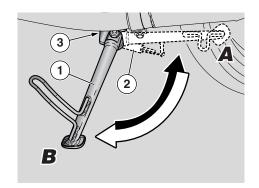
Spark plug tightening torque: 20 Nm (2 kgm).

## **A** CAUTION

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

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

**NOTE** Repeat the operations described on the spark plug of the other cylinder.



#### **CHECKING THE SIDE STAND**

Carefully read p. 45 (MAINTENANCE) and p. 67 (CHECKING THE SWITCHES).

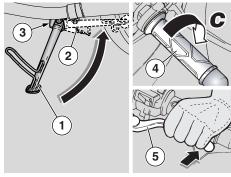
The side stand (1) has two positions:

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

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

The side stand (1) must rotate without hindrances.

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

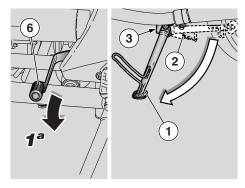


## Carry out the following checks:

- The springs (2) must not be damaged, worn, rusty or weakened.
- Make sure that the stand presents no slack in either position (extended and lifted).
- Lower the stand, making sure that the springs provide for extending it completely.
- Move the stand to let it up and release it halfway to make sure that the springs provide for lifting it completely.
- The side stand must rotate freely, if necessary grease the joint, see p. 82 (LUBRICANT CHART).

The side stand (1) is provided with a safety switch (3) that has the function to prevent or interrupt the operation of the engine with the gears engaged and the side stand (1) down.

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# To check the proper functioning of the safety switch (3), proceed as follows:

- ◆ Seat on the vehicle in driving position.
- ◆ Fold the side stand (1).
- ◆ Start the engine, see p. 37 (STARTING).
- With released throttle grip (4) (Pos.C) and engine idling, pull the clutch lever (5) completely.
- ◆ Engage the first gear, by pushing the gear shift lever (6) downwards.
- ◆ Lower the side stand (1), thus triggering the safety switch (3).

## At this point:

- the engine must stop;

If the engine does not stop, contact a **Moto Guzzi** Authorised Dealer.

#### **BATTERY**

## Carefully read p. 45 (MAINTENANCE).

Check battery fluid level and terminal torque after the first 1000 km (625 miles) and every 6000 km (3750 miles) afterwards.

# **A WARNING**

Risk of fire.

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

Battery fluid is toxic and caustic. It contains sulphuric acid and contact with skin will cause severe burns. Wear protective clothing and a face or eye protection before servicing the battery. In case of contact with skin, rinse with plenty of fresh water.

In case of contact with eyes, rinse with plenty of water for fifteen minutes and contact an eye specialist without delay.

If battery fluid is accidentally swallowed, drink abundant water or milk, then continue with magnesia milk or vegetable oil and seek medical advice immediately.

The battery gives off explosive gases. Keep away from flames and sources of ignition or heat. Do not smoke near the battery.

Provide proper ventilation while the battery is under charging. Do not inhale the gases produced by the battery under charging.

**KEEP AWAY FROM CHILDREN.** 

Avoid leaning the vehicle at steep angles or you might spill battery fluid.

### **A** WARNING

Never invert the battery cables.

Ensure that the ignition switch is in 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.

Battery fluid is corrosive.

Do not spill it, especially on plastic parts.

If you have installed a "MAINTENANCE-FREE" battery, use a specific battery charger to recharge it (this will be the constant voltage/amperage or constant voltage type).

Using a conventional battery charger might damage your maintenance-free battery.

# LONG INACTIVITY OF THE BATTERY

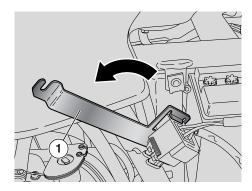
If the vehicle remains unused for more than fifteen days, it is necessary to recharge the battery, in order to prevent its sulphation, see p. 65 (CHARGING THE BATTERY).

 Remove the battery, see p. 64 (REMOVING THE BATTERY) and put it in a cool and dry place.

It is important to check the charge periodically (about once a month), during the winter or when the vehicle remains unused, in order to prevent the deterioration of the battery.

◆ Recharge it completely with a normal charge, see p. 65 (CHARGING THE BATTERY).

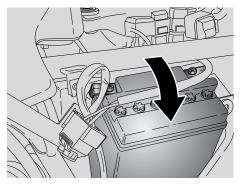
If the battery remains on the vehicle, disconnect the cables from the terminals.



# CHECKING AND CLEANING THE TERMINALS

# Carefully read p. 62 (BATTERY).

- ◆ Make sure that the ignition switch is in position "⋈".
- ◆ Remove the rider seat, see p. 22 (UNLOCKING/LOCKING THE SEAT).
- Remove left side body panel, see p. 54 (REMOVING THE SIDE BODY PANELS).
- Lift the bracket (1) that locks the battery taking care not to score tank. Use soft material for protection, if necessary.



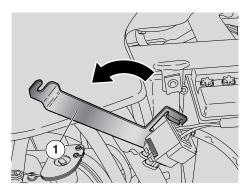
- ◆ Take battery partially out of its seat.
- ◆ Make sure that the cable terminals and the battery terminals are:
- in good conditions (and not corroded or covered with deposits);
- covered with neutral grease or vaseline.

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# If necessary, proceed as follows:

- ◆ Remove the battery, see p. 64 (REMOVING THE BATTERY).
- Brush the cable terminals and the battery terminals with a wire brush, in order to eliminate any trace of corrosion.
- ◆ Install the battery, see p. 66 (INSTALLING THE BATTERY).



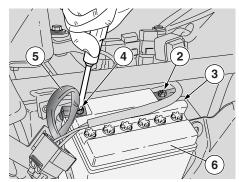
**REMOVING THE BATTERY** 

# **A** CAUTION

To remove the battery it is necessary to set to zero the digital clock. To reset this function, see p. 17 (MULTIFUNCTION DIGITAL DISPLAY).

## Carefully read p. 62 (BATTERY).

- ◆ Make sure that the ignition switch is in position "⋈".
- ◆ Remove the rider seat, see p. 22 (UNLOCKING/LOCKING THE SEAT).
- Remove left side body panel, see p. 54 (REMOVING THE SIDE BODY PANELS).
- Lift the bracket (1) that locks the battery taking care not to score tank. Use soft material for protection, if necessary.



- ◆ Unscrew and remove the screw (2) on the negative terminal (-).
- ◆ Move the negative cable (3) on the side.
- ◆ Unscrew and remove the screw (4) on the positive terminal (+).
- ◆ Move the positive cable (5) on the side.
- ◆ Disconnect the battery breather hose.
- ◆ Grasp the battery (6) firmly and remove it from its compartment by lifting it.

## **WARNING**

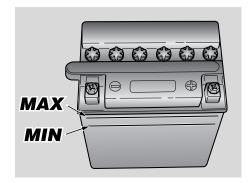
Once it has been removed, the battery must be stored in a safe place and kept away from children.

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



- ◆ Lower the bracket (1).
- Refit left side body panel, see p. 54 (REMOVING THE SIDE BODY PANELS).
- ◆ Put back the rider seat, see p. 22 (UNLOCKING/LOCKING THE SEAT).

**NOTE** For the installation of the battery, see p. 66 (INSTALLING THE BATTERY).



# CHECKING THE BATTERY FLUID LEVEL

To check the battery fluid level:

 Make sure that battery fluid level is between the MIN and MAX marks on the battery.

If not so:

◆ Remove the battery caps.

## **A** CAUTION

Top up with distilled water only. Do not exceed the MAX mark, because battery fluid expands when the battery is under charging.

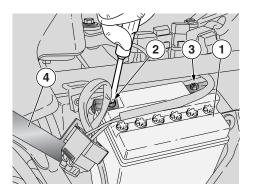
 Add distilled water until achieving correct level.

#### CHARGING THE BATTERY

- ◆ Remove the battery, see p. 64 (REMOVING THE BATTERY)
- ◆ Remove the battery caps.
- Check battery fluid level, see (CHECKING THE BATTERY FLUID LEVEL) at the side.
- ◆ Connect the battery to a battery charger.
- Recommended charge rate is 1/10th of battery capacity.
- After charging the battery, check battery fluid level again. Top up with distilled water if needed.
- ◆ Refit the caps.

# **A** WARNING

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

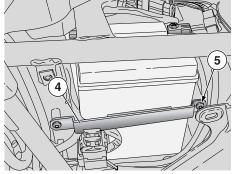


#### **INSTALLING THE BATTERY**

Carefully read p. 62 (BATTERY).

- ◆ Make sure that the ignition switch is in position "⋈".
- ◆ Remove the rider seat, see p. 22 (UNLOCKING/LOCKING THE SEAT).
- Remove left side body panel, see p. 54 (REMOVING THE SIDE BODY PANELS).
- Lift the bracket (4) that locks the battery taking care not to score tank. Use soft material for protection, if necessary.

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



- ◆ Partially install battery (1) into its seat.
- ◆ Connect the battery breather hose.

# **A** CAUTION

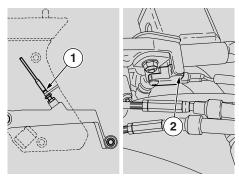
Upon reassembly, connect first the positive cable (+) and then the negative cable (-).

- ◆ Connect the positive terminal (+) by means of the screw (2).
- ◆ Connect the negative terminal (-) by means of the screw (3).
- Cover the terminals of the cables and of the battery with neutral grease or vaseline.
- ◆ For a correct battery positioning, fully install it into its seat.
- ◆ Put back the rider seat, see p. 22 (UNLOCKING/LOCKING THE SEAT).

- Lower battery locking bracket (4) and hook it to reference pin (5).
- Refit left side body panel, see p. 54 (REMOVING THE SIDE BODY PANELS).

# **A** CAUTION

Removing the battery will set to zero the digital clock. To reset this function, see p. 17 (MULTIFUNCTION DIGITAL DISPLAY).

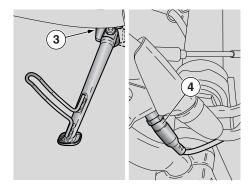


#### **CHECKING THE SWITCHES**

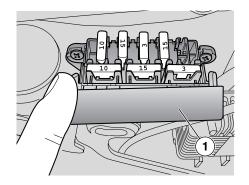
Carefully read p. 45 (MAINTENANCE).

The vehicle is provided with four switches:

- Stoplight switch on the rear brake control lever;
- 2) Stoplight switch on the front brake control lever;
- 3) Safety switch on the side stand;
- 4) Switch on the clutch control lever.



- Make sure that there are no dirt or mud deposits on the switch; the pin must be able to move without interferences, returning automatically to its initial position.
- ◆ Make sure that the cables are connected correctly.



### **CHANGING THE FUSES**

Carefully read p. 45 (MAINTENANCE).

# **A** CAUTION

Do not repair faulty fuses.

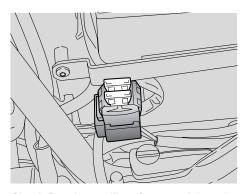
Never use fuses different from the recommended ones.

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

**NOTE** If a fuse blows frequently, there probably is a short circuit or an overload in the electric system.

In this case it is advisable to consult a **Moto Guzzi** Authorised Dealer.

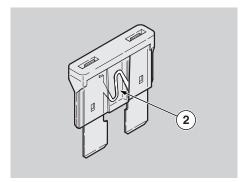
If an electric component does not work or works irregularly, or if the vehicle fails to start, it is necessary to check the fuses.



Check first the auxiliary fuses and then the main fuses.

### For the check, proceed as follows:

- ◆ Turn the ignition switch to position " ⋈ ", to avoid any accidental short circuit.
- ◆ Remove the rider seat, see p. 22 (UNLOCKING/LOCKING THE SEAT).
- Remove the side body panels, see p. 54 (REMOVING THE SIDE BODY PANELS).
- Open the cover of the box (1) containing the auxiliary fuses.
- ◆ Extract the fuses one by one and check if the filament (2) is broken.
- ♦ Before replacing a fuse, try to find out the cause of the trouble, if possible.
- Replace the damaged fuse with a new one having the same amperage.

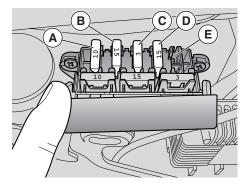


**NOTE** If you use one of the spare fuses, put a new fuse in the proper seat.

 Carry out the operations previously described for the auxiliary fuses also for the main fuses.

**NOTE** Removing the 30A fuses sets to zero the digital clock.

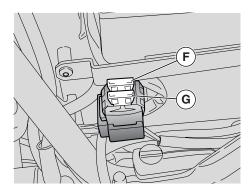
To reset this function, see p. 17 (MULTIFUNCTION DIGITAL DISPLAY).



## ARRANGEMENT OF AUXILIARY FUSES

- a) From key to safety logic/starting (10 A).
- b) From key to lights, stop light, horn, and direction indicators (15 A).
- c) From battery to injection permanent supply (3A).
- d) From battery to injection (15A).
- e) Free

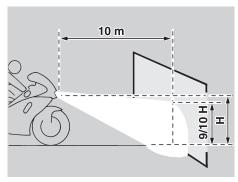
**NOTE** Three fuses are spare fuses (3, 10, 15 A).



#### ARRANGEMENT OF MAIN FUSES

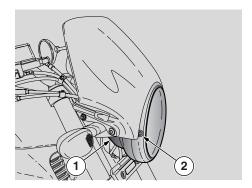
- f) From battery to voltage regulator (30A).
- g) From battery to key and C and D fuses (30A).

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



# ADJUSTING THE HEADLIGHT BEAM

**NOTE** To check the direction of the headlight beam, specific procedures must be adopted, in accordance with the regulations in force in the country where the vehicle is used.



# VERTICAL ADJUSTMENT OF THE HEADLIGHT BEAM

- ◆ Place the motorcycle on level ground.
- Slightly loosen screws (1) fixing headlight fairing to headlamps and front fairing and adjust headlight beam to the desired position.
- ◆ Once finished, tighten screws (1).

# **A** CAUTION

At reassembly, tighten screws (1) with extreme care on plastic.

After adjustment:

# **WARNING**

Check headlight beam correct vertical adjustment.

69

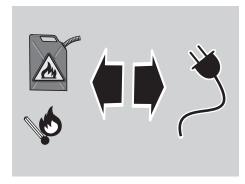
# HORIZONTAL ADJUSTMENT OF THE HEADLIGHT BEAM

- Position motorcycle on stand, see p. 44 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Using a screwdriver, turn screw (2) until reaching the desired beam position.

## After adjustment:

# WARNING

Check headlight beam correct horizontal adjustment.



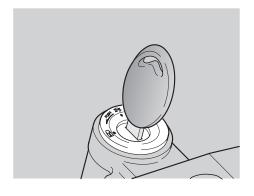
#### **BULBS**

Carefully read p. 45 (MAINTENANCE).

## **WARNING**

Risk of fire.

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



# **A** CAUTION

Before changing a bulb, move the ignition switch to position "⋈" and wait a few minutes, so that the bulb cools down.

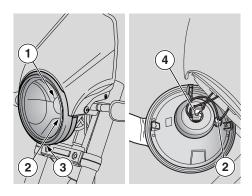
Change the bulb wearing clean gloves or using a clean and dry cloth.

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

If you touch the bulb with bare hands, remove any fingerprint with alcohol, in order to avoid any damage.

DO NOT FORCE THE ELECTRIC CABLES.

**NOTE** Before changing a bulb, check the fuses, see p. 67 (CHANGING THE FUSES).



### CHANGING THE HEADLIGHT **BULBS**

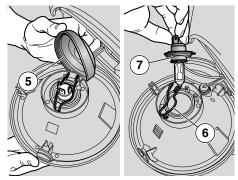
Carefully read p. 70 (BULBS).

### The headlight contains:

- one low/high beam bulb (1) (upper);
- one parking light bulb (2) (lower).

#### To change the bulbs, proceed as follows:

- ◆ Position the vehicle on the stand, see p. 44 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ To remove the complete reflector from headlight body, loosen screw (3).

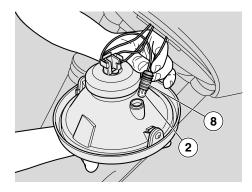


## **LOW/HIGH BEAM BULBS**

- To extract the bulb electric connector. do not pull its wires.
- ◆ Grasp the bulb electric connector (4), pull it and disconnect it from the bulb.
- ◆ Move the protection element (5) with your hands.
- ◆ Release the two ends of the check spring (6) positioned on the bulb socket (7).
- ◆ Extract the bulb from its seat.

**NOTE** Insert the bulb in the bulb socket, making the respective positioning seats match.

◆ Correctly install a new bulb of the same type.



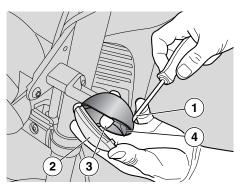
**PARKING LIGHT BULB** 

# **A** CAUTION

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

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

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



# CHANGING THE FRONT AND REAR DIRECTION INDICATOR BULBS

Carefully read p. 70 (BULBS).

- ◆ Position the vehicle on the stand, see p. 44 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the screw (1).

# **A** CAUTION

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

◆ Remove the protection screen (2).



# **A** CAUTION

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

- Press the bulb (3) slightly and rotate it anticlockwise.
- ◆ Extract the bulb (3) from its seat.

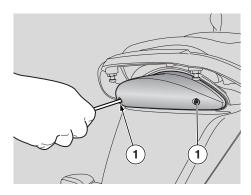
# **A** CAUTION

Insert the bulb in the bulb socket, making the two bulb pins coincide with the relevant guides on the socket.

◆ Correctly install a new bulb of the same type.

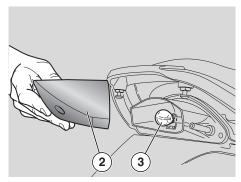
## **A** CAUTION

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



CHANGING THE TAIL LIGHT BULB Carefully read p. 70 (BULBS).

Before changing a bulb, check the efficiency of the stoplight switches, see p. 67 (CHECKING THE SWITCHES).



- Position the vehicle on the stand, see p. 44 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the two screws (1).
- ◆ Remove the protection screen (2).
- Press the bulb (3) slightly and rotate it anticlockwise.
- ◆ Extract the bulb (3) from its seat.



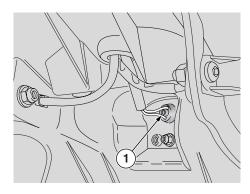
# **A** CAUTION

Insert the bulb in the bulb socket, making the two bulb pins coincide with the relevant guides on the socket.

Correctly install a new bulb of the same type.

**NOTE** Make sure that the protective shield locates correctly into its seat on refitting.

Tighten the screws (2) gradually and moderately or the protective shield will damage.



# REPLACING THE PLATE NUMBER BULB

Read p. 70 (BULBS) carefully.

 Position vehicle onto stand, see p. 44 (POSITIONING THE VEHICLE ON THE STAND).

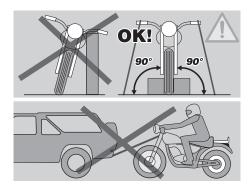
# **A** CAUTION

To remove the bulb holder, do not pull on the wiring.

- ◆ Grasp parking light (1) bulb holder and pull to extract.
- ◆ Remove the bulb and fit a new bulb of equal rating.

**NOTE** Check bulb correct positioning inside bulb holder.

### **TRANSPORT**



## **A WARNING**

Before transporting the vehicle, drain all fuel from the fuel tank, see p. 75 (DRAINING THE FUEL TANK) and make sure that it is fully dry.

During transport, the vehicle must be well secured in an upright position to avoid fuel, oil and coolant leaks.

If stranded, do not have the vehicle towed. Contact a road-side service firm.

#### **DRAINING THE FUEL TANK**

Read p. 25 (FUEL) carefully.

# **A WARNING**

Risk of fire!

Allow some time for the engine and muffler to cool down completely.

Fuel vapours are noxious for human health.

Ensure the area is well ventilated before proceeding.

Do not inhale fuel vapours.

Do not smoke or use open flames.

DO NOT RELEASE FUEL INTO THE ENVIRONMENT

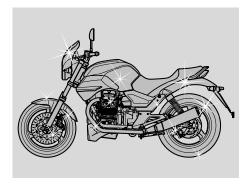
- ◆ Place the vehicle on the centre stand on firm and level ground.
- Stop the engine and wait until it has cooled down.
- Prepare a container large enough to hold the fuel in the tank and place it on the floor on the left side of the vehicle.
- ◆ Remove the fuel filler cap.
- Drain fuel using a manual pump or similar system. Do not damage the fuel pump assembly (fuel level sensor accommodated inside the tank).

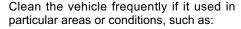
# **WARNING**

Refit the filler cap after draining all fuel.

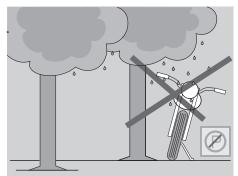
75

#### **CLEANING**





- Polluted areas (cities and industrial areas).
- Areas characterized by a high percentage of salinity and humidity (sea areas, hot and humid climates).
- Particular conditions (use of salt and anti-ice chemical products on the roads during the winter).
- Avoid leaving deposits of industrial and polluting powders, tar spots, dead insects, bird droppings, etc. on the body.
- Avoid parking the vehicle under trees, since in some seasons residues, resins, fruits or leaves fall down, which contain substances that may damage the paint.



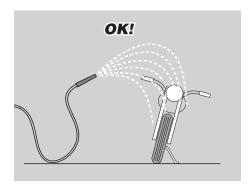
## **A WARNING**

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

Calculate long braking distances to avoid accidents.

Brake repeatedly to restore normal conditions.

Carry out the preliminary checking operations, see p. 36 (PRELIMINARY CHECKING OPERATIONS TABLE).



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

Then rinse with plenty of water and dry with chamois leather.

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



# **A** CAUTION

Before washing the vehicle

- 1) Empty the glove and tool kit compartment. Remove the matting inside the compartment.
- 2) Make sure compartiments are properly closed.

## **A** CAUTION

Use only neutral detergent to wash the vehicle. Rinse with water, but do not use a water cleaner (see p. 76 (CLEANING)).

## **A** CAUTION

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

# **A CAUTION**

Polish with silicone wax only after having carefully washed the vehicle.

Do not use polishing pastes on matt paints.

Do not wash the vehicle under the sun, especially during the summer, when the body is still warm, since if the shampoo dries before being rinsed away, it can damage the paint.

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

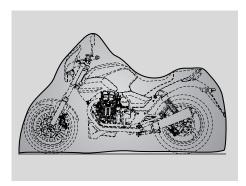
## **A** CAUTION

Do not direct high-pressure water or air jets or steam jets on to the following components: wheel hubs, controls on the right and left side of the handlebar, bearings, brake master cylinders, instruments and indicators, exhaust pipes, glove/tool kit compartment, ignition switch/steering lock.

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

# **WARNING**

Do not apply protection waxes onto the seat, in order not to make it too slippery.



#### LONG PERIODS OF INACTIVITY

## **A CAUTION**

If the vehicle remains unused for more than twenty days, disconnect the 30A fuses, in order to avoid the deterioration of the battery.

**NOTE** The removal of the 30A fuses causes the setting to zero of the digital clock. To reset this function, see p. 17 (MULTIFUNCTION DIGITAL DISPLAY).

After a long period of inactivity of the vehicle some precautions are necessary to avoid any problem.

Further, it is important to carry out the necessary repairs and a general check up before the period of inactivity, since you could forget to carry them out later.

#### Proceed as follows:

- ◆ Remove the battery, see p. 64 (REMOVING THE BATTERY) and p. 63 (LONG INACTIVITY OF THE BATTERY).
- ◆ Wash and dry the vehicle, see p. 105 (CLEANING).
- ◆ Polish the painted surfaces with wax.
- ◆ Inflate the tyres, see p. 30 (TYRES).
- Place the vehicle in an unheated, nothumid room, away from sunlight, with minimum temperature variations.
- Position and tie a plastic bag on the final pipe of the exhaust silencer, in order to prevent moisture from getting into it.

**NOTE** Position the vehicle on stable supports to keep both tires raised from ground.

 Cover the vehicle avoiding the use of plastic or waterproof materials.

#### AFTER A PERIOD OF INACTIVITY

**NOTE** Withdraw the plastic bag from the exhaust silencers.

- Uncover and clean the vehicle, see p. 76 (CLEANING).
- ◆ Check the charge of the battery, see p. 65 (CHARGING THE BATTERY) and install it, see p. 66 (INSTALLING THE BATTERY).
- ◆ Refill the fuel tank, see p. 25 (FUEL).
- Carry out the preliminary checking operations, see p. 36 (PRELIMINARY CHECKING OPERATIONS TABLE).

## WARNING

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

## TECHNICAL DATA

**DIMENSIONS** 2190 mm Max. length

> Max. width 730 mm 1175 mm Max. height (front part of the fairing included) Seat height 790 mm Wheel base 1449 mm 176 mm Min. ground clearance

Dry weight 182 kg

**ENGINE** Model Breva V 750 ei

> Type 90° longitudinal V-type, two-cylinder, 4-stroke.

Number of cylinders

744 cm<sup>3</sup> Total displacement Bore/stroke 80 mm/74 mm

Compression ratio 9.6: 1 Starting electric

1100 ± 100 rpm Engine idling rpm

Clutch single disc, dry, with cush drive element

Lubrication system pressure system, valve adjustment, lobe pump

Air cleaner dry, cartdrige

Cooling air-cooled

**TRANSMISSION** Type

mechanical, 5 gears with foot control on the left side of the engine CAPACITY 18 ℓ

Fuel (reserve included) Fuel reserve 51

> oil and oil filter change 2 / Engine oil

Fork oil  $400 \pm 2.5 \text{ cm}^3 \text{ (per leg)}$ 

Seats

Vehicle max, load 180 kg (driver + passenger + luggage)

GEAR RATIOS	Ratio 1st 2nd 3rd 4th 5th	Primary gear-type 16/21 = 1: 1.3125	Secondary 11/26 = 1:2.3636 14/23 = 1:1.6429 18/23 = 1:1.2778 18/19 = 1:1.0556 20/18 = 1: 0.9	Final ratio cardan-type 8/33 = 1:4.825		
FUEL SUPPLY SYSTEM	Туре		, ,	electronic injection (Weber-Marelli)		
	Choke		Ø 36 mm			
FUEL SUPPLY	Fuel		premium grade unleaded petrol, min. O.N. 95 (N.O.R.M.) and 85 (N.O.M.M.).			
FRAME	Туре		steel	th two cradles that can be disassembled, in high-resistant		
	Steering inclination angle		27.5°			
	Trail		109 mm			
SUSPENSIONS	Front		Marzocchi hydraulic telescopic adjustable fork, Ø 40 mm			
	Stroke		130 mm	•		
	Rear		die-cast swinging arm in light alloy with two shock absorbers featuring spring preload adjustment			
	Wheel travel		95 mm			
BRAKES	Front		with stainless steel floating dis opposed pistons	ess steel floating disc - $\varnothing$ 320 mm, calipers with four separate sistons		
	Rear		stainless steel disc brake - Ø 2	60 mm		
WHEEL RIMS	EEL RIMS Type		three-spoke, die-cast in light all	loy		
	Front		3" x 17"			
	Rear		3.50" x 17"			
TYRES Type		BRIDGESTONE BATLAX, as an alternative PIRELLI SPORT DAEMON				
	Front		Size: 110/70 - ZR 17"			
			Pressure: 220 kpa Pressure with passenger: +0.3	otm.		
	Rear		Size: 130/80 - ZR 17"	aun		
	Real					
			Pressure: 240 kpa	otm.		
			Pressure with passenger: +0.3	aun		

**SPARK PLUGS** NGK BR8ES Standard

0.6 - 0.7 mm Spark plug gap

Resistance  $5 k\Omega$ 

**ELECTRIC SYSTEM** Battery 12 V - 14 Ah

> Main fuses 30 A

3 A - 10 A - 15 A Auxiliary fuses Generator (with permanent magnet) 12 V - 330 W

**BULBS** Low/high beam (halogen) 12 V - 55/60 W H4

> Front parking light 12 V - 5 W

**Direction indicators** 12 V - 10 W (RY 10 W orange bulb)

Rear parking lights/Stoplight 12 V - 5/21 W

Instrument lighting LED

EFI LED

Number plate light 12 V - 5 W

WARNING LIGHTS Neutral LFD

> **Direction indicators** LED Fuel reserve LED High beam LED LED

Engine oil pressure

#### **LUBRICANT CHART**

(Recommended) engine oil: Agip RACING 4T.

As an alternative to recommended oils, top brand oils meeting or exceeding CCMC G-4 A.P.I. SG specifications can be used.

Recommended) transmission oil: Agip TRUCK GEAR 85 W 140.

(Recommended) gearbox oil: Agip ROTRA MP/S 80 W 90.

(Recommended) fork oil: F.A. 5W, F.A. 20W; as an alternative, Agip FORK 5W or Agip FORK 20W.

Bearings and other lubrication points (recommended): BIMOL GREASE 481, AUTOGREASE MP; as an alternative, Autogrease MP; and Autogrease MP; as an alternative, Autogrease MP; as

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 oxidisation.

Battery lead protection: use neutral grease or Vaseline.

### **A WARNING**

Use new brake fluid only. Do not mix different makes or types of oil without having checked bases compatibility.

(Recommended) brake fluid: The system is filled with \_\_\_\_\_ Autofluid FR. DOT 4 (the braking system is also compatible with DOT 5); as an alternative, Agip BRAKE 5.1 DOT 4 the braking system is also compatible with DOT 5).

As an alternative to the recommended product, top brand brake fluid meeting or exceeding SAE J1703, NHTSA 116 DOT 4, ISO 4925 specifications for synthetic brake fluid can be used.



#### **AUTHORISED DEALERS AND SERVICE CENTRES**



Thanks to ongoing technical updates and product-specific technical training, **Moto Guzzi** Authorised Network engineers are familiar with every detail of this motorcycle 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 **Moto Guzzi** GenuineParts only are other 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.motoguzzi.it

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



**ULTRA BYKES NETWORK - PHILIPPINES** Z.A.O. ITALMOTO - RUSSIA Ultra Bykes Network, Ground Floor, La Fuerza Building, 2241 Chino Roces Avenue, corner Sabio St., CITY OF MAKATI - Tel. 00632-752-4450 - Fax 00632-750-5764 - E-mail dgc01@pacific.net.ph

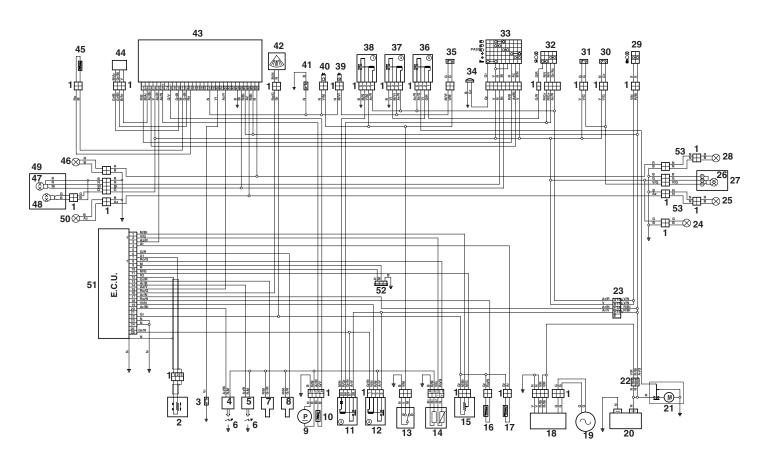
Ultra Bykes Network (Sale), CSEZ inc., Building 7294, C.M. Recto Highway, Clark Special Economic Zone, Clark Field, PAMPANGA - Tel. 00632-917-5209896 Fax 00632-750-5764 - E-mail dgc01@pacific.net.ph





**USE GENUINE SPARE PARTS ONLY** 

#### WIRING DIAGRAM - Breva



### **WIRING DIAGRAM KEY - Breva**

<ol> <li>Multiple connectors</li> <li>RPM sensor</li> <li>Oil pressure sensor</li> <li>Left coil</li> <li>Right coil</li> <li>Spark plugs</li> <li>Left injector</li> <li>Right injector</li> <li>Fuel pump</li> <li>Low fuel sensor</li> <li>Main injection relay (Polarized)</li> </ol>	28) Right rear direction indicator 29) Key-operated switch 30) Front stop switch 31) Rear stop switch 32) Right dimmer switch 33) Left dimmer switch 34) Warning horn 35) Clutch switch 36) Start relay 37) "B" safety logic relay 38) "A" safety logic relay	55) 56) 57) 58) 59) 60)	- - -
12) Secondary injection relay 13) Side stand switch 14) Lambda probe 15) Throttle sensor 16) Engine air thermistor 17) T head sensor 18) Voltage regulator 19) Flywheel 20) Battery 21) Starter motor 22) Main fuses 23) Auxiliary fuses 24) Number plate light 25) Left rear direction indicator 26) Stop - parking light 27) Tail light	39) Diode 1 40) Diode 2 41) Neutral switch 42) Back angle sensor 43) Instrument panel 44) Speed sensor 45) Instrument panel air T thermistor 46) Right front direction indicator 47) High beam - low beam bulb. 48) Front parking light bulb. 49) Headlight 50) Left front direction indicator 51) E.C.U. 52) Diagnostics socket 53) Extension (for side panniers kit only) 54) -	CA Ar Az B Bi G Gr M N R V Vi Ro	Orange Light blue Blue White Yellow Grey Brown Black Red Green Violet Pink



**USE GENUINE SPARE PARTS ONLY** 



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

- Do not dispose of oil, fuel, polluting substances and components in the environment.
- Do not keep the engine running if it isn't necessary.
- Avoid disturbing noises.
- Respect nature.