







**USE+MAINTENANCE BOOK** 

#### © 2006 Moto Guzzi S.p.A.

Mandello del Lario (LECCO)

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#### on behalf of:

#### Moto Guzzi S.p.A.

via E. V. Parodi, 57 23826 Mandello del Lario (LECCO) - Italy Phone +39 - 0341 70 91 11 Fax +39 - 0341 70 92 20 www.motoguzzi.it

### FOREWORD

**NOTE** This manual is an important and integral part of your vehicle. Keep it with your vehicle at all times, even if your vehicle is resold.

**Moto Guzzi** has prepared this manual to supply you, the user, with correct and current information. However, since **Moto Guzzi** constantly improves the design of its vehicles, there may be slight discrepancies between your vehicle and the material given in this manual. If you have any questions about your vehicle, contact your Local **Moto Guzzi** Dealer, as he will have the very latest technical information available from the factory.

For tests and repairs not expressly described in this manual, to purchase **Moto Guzzi** genuine spare parts, accessories, and other products, and for help with specific problems, please contact your Local **Moto Guzzi** Dealer or service center. These professionals will be able to assist you promptly and accurately.

Thank you for choosing **Moto Guzzi**. Have a great ride!

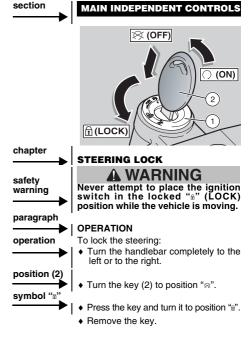
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## INTRODUCTION

This manual is divided by subject into sections, chapters and paragraphs. The procedures described are laid out step by step, and each operation is indicated by a  $\blacklozenge$ .

The numbered parts shown in the figures are identified in the text with the number in parentheses, or the symbol representing them.

Example (the following text is generic and does not refer to this specific vehicle:



## SAFETY WARNINGS

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

Safety Warning: When you see this symbol on the vehicle or in the manual, pay particular attention to the potential risk of personal injury or death. Failure to comply with the instructions given in the warning messages preceded by this symbol may result in grave risk for your own safety and that of others, as well as for the vehicle.

# **WARNING**

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

## **A**CAUTION

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

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

## **GENERAL SAFETY RULES**

#### **CARBON MONOXIDE**

If it is necessary to run the engine in order to carry out a given maintenance operation, make sure that the area in which you are operating is properly ventilated. Never run the engine in enclosed spaces. If it is necessary to work indoors, use an exhaust evacuation system.

# **WARNING**

The exhaust fumes contain carbon monoxide, a poisonous gas that can cause loss of consciousness and even death.

# **A** WARNING

Carbon monoxide is both colorless and odorless, and cannot be detected by smell, vision, or any other sense. Avoid breathing exhaust fumes under any circumstances.

## GASOLINE

Keep gasoline away from children. Gasoline is also poisonous. Never attempt to siphon gasoline using your mouth. Never allow gasoline to contact your skin. If you should accidentally spill gasoline on yourself, change your clothes immediately and thoroughly wash the area upon which the gasoline was splashed with hot water and soap. Should you accidentally swallow gasoline, do not induce vomiting. Drink abundant cool water or milk and seek professional medical assistance immediately. Should you accidentally get gasoline get your eyes, flush with abundant cool, clear water and seek professional medical assistance immediately.

# **WARNING**

Gasoline is extremely flammable and becomes explosive under certain conditions.

KEEP GASOLINE AWAY FROM CHILDREN.

### HOT COMPONENTS

# **WARNING**

The engine and all parts of the exhaust system, as well as the braking system, become very hot and remain hot for some time after the vehicle and the engine are stopped. Before handling any component of your vehicle after riding, make sure that it has cooled sufficiently to be safe to handle.

### **USED ENGINE OIL**

## **WARNING**

Use latex gloves for those maintenance operations that require contact with used oil. Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is advisable to thoroughly wash your hands with soap and water after handling used oil.

KEEP OIL AWAY FROM CHILDREN.

#### **BRAKE FLUID**

# **A**CAUTION

Brake fluid is extremely poisonous. Do not ever allow brake fluid to be ingested or swallowed. Should brake fluid accidentally be swallowed, drink abundant milk or clear water and seek professional medical assistance immediately. Brake fluid is highly destructive of skin and eye tissue. Should you accidentally spill brake fluid on yourself, remove the contaminated clothing, wash your body with soap and warm water immediately and seek professional medical assistance immediately. Should you accidentally splash brake fluid into your eyes, flush with abundant cool, clear water and seek professional medical assistance immediately.

KEEP BRAKE FLUID AWAY FROM CHILDREN.

### **CLUTCH FLUID**

# **A**CAUTION

Clutch fluid is extremely poisonous. Do not ever allow clutch fluid to be ingested or swallowed. Should clutch fluid accidentally be swallowed, drink large quantities of milk or clear water and seek professional medical assistance immediately. Clutch fluid is highly destructive of skin and eye tissue. Should you accidentally spill clutch fluid on yourself, immediately remove the contaminated clothing, wash your body with soap and warm water and seek professional medical assistance immediately. Should you accidentally splash clutch fluid into your eyes, flush with abundant cool, clear water and seek professional medical assistance immediately.

# KEEP CLUTCH FLUID AWAY FROM CHILDREN.

## COOLANT

In certain conditions, the ethylene glycol contained in the engine coolant is flammable: its flame is invisible, but you can be burned anyway.

# **WARNING**

Avoid spilling the engine coolant on the exhaust system or engine components. They may be hot enough to cause the coolant to ignite and burn without a visible flame. The coolant (ethylene glycol) can cause skin irritation and is poisonous if swallowed.

Coolant and coolant/water mixtures are sweet to the taste and brightly colored, and therefore are highly attractive to pets and children. Take extra precautions to keep new and used coolant out of reach of children and animals.

# KEEP COOLANT AWAY FROM CHILDREN.

#### Risk of burns.

Do not remove the radiator cap when the engine is hot. Wait until the engine has completely cooled down. The coolant is under pressure and may splash out and cause burns.

#### BATTERY HYDROGEN GAS AND ELECTROLYTE

## **WARNING**

The battery gives off noxious and explosive gases; keep cigarettes, flames and sparks away from the battery. Provide adequate ventilation when operating or recharging the battery.

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

The battery contains sulfuric acid (electrolyte). Contact with the skin or eyes may cause serious burns. Always wear protective clothing, rubber gloves, and tight fitting goggles or a face shield when working around the battery, especially when filling the battery with either water or electrolyte.

In case of contact with the skin, flush immediately with plenty of water. In case of contact with the eyes, flush with plenty of water for at least 15 minutes. Immediately consult a health professional.

#### The electrolyte is poisonous.

If the electrolyte is accidentally swallowed, drink abundant quantities of water or milk, followed by milk of magnesia or vegetable oil. Immediately consult a health professional.

KEEP BATTERIES AND ELECTROLYTE AWAY FROM CHILDREN.

#### WARNINGS - PRECAUTIONS -General Advice

Before starting the engine, carefully read this manual and in particular the chapters "WARNINGS - PRECAUTIONS - GENERAL ADVICE" and "SAFE DRIVE" see p. 17.

Your safety and that of those around you depends not only on your skill as a rider, but also your knowledge of your vehicle and about riding safely. Therefore it is essential that you not operate your vehicle on public streets or highways until you have received instructions from a qualified safety organization such as the Motorcycle Safety Foundation, and are properly trained and licensed.

#### REPORTING DEFECTS THAT AFFECT SAFETY

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Moto Guzzi. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, vour dealer, or Moto Guzzi. To contact NHTSA, you may either call the Auto Safety Hotline toll free at 1-800-424-9393 (or 366-0123 in the Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590.

You can also obtain other information about motor vehicle safety from the Hotline.

#### ROAD REGULATIONS AND USING THE VEHICLE

Rules of the road vary from country to country. It is essential that you understand in advance the rules of the road of the country in which your vehicle will be used.

# **WARNING**

This vehicle has been designed and built for use only on paved roads. It is not designed to be used on even smooth graded dirt roads, or trails. It is not designed for off road competition, or for cross country riding. Do not use this vehicle on rough or unimproved surfaces, or in other off road areas. Failure to heed this warning could lead to an upset with subsequent injury and even death.

#### **NOISE EMISSION WARRANTY**

**Moto Guzzi** s.p.a. warrants that this exhaust system, at the time of sale, meets all applicable U.S. **EPA** Federal noise standards. This warranty extends to the first person who buys this exhaust system for purposes other than resale, and to all subsequent buyers.

Warranty claims should be directed to:

#### Piaggio Group Americas, Inc.

140 East 45th Street, 17th Floor New York, NY 10017 U.S.A.

Phone 001 212 380 4400 Fax 001 212 380 4459

#### INFORMATION ON THE NOISE AND EXHAUST GAS EMISSION CONTROL SYSTEM

## **ORIGIN OF THE EMISSIONS**

The combustion process produces carbon monoxide and hydrocarbons. The control of hydrocarbons is very important, because under certain conditions they react to exposure to sunlight and produce photochemical smog.

Carbon monoxide does not react in the same way, but it is toxic and poisonous. **Moto Guzzi** utilizes "lean" carburetor settings and other systems to reduce the production of carbon monoxide and hydrocarbons.

## **TAMPERING WARNING**

Tampering with the noise control system is prohibited. Federal law prohibits the following acts or causing thereof:

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

Among those acts presumed to constitute tampering are the acts listed below:

- a) Removal or puncturing of the muffler, baffles, header pipes or any other component which conducts exhaust gases.
- b) Removal or puncturing of any part of the intake system.
- c) Lack of proper maintenance.
- d) Replacing any moving part of the vehicle, or parts of the exhaust or intake system, with parts other than those specified by the manufacturer.

# **A** CAUTION

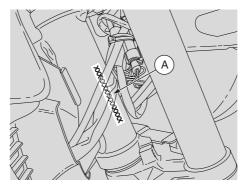
This product should be checked for repair or replacement if the vehicle noise has increased significantly through use. Otherwise, the owner may become subject to penalties under state and local ordinances.

# PROBLEMS THAT MAY AFFECT VEHICLE EMISSIONS

If any of the following symptoms are observed, have your vehicle immediately inspected and repaired by your Local **Moto Guzzi** Dealer

## Symptoms:

- Difficult starting or stalling after starting.
- Irregular idle.
- Misfiring or backfiring during acceleration.
- After-burning (backfiring).
- Poor engine performance, degraded handling, or poor fuel economy.



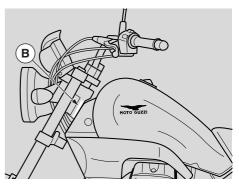
## VEHICLE IDENTIFICATION NUMBER (V.I.N.) (FRAME NUMBER)

Every vehicle produced by **Moto Guzzi** receives a vehicle identification number (V.I.N.) stamped:

 on the steering head of the frame (A), as shown above;

and also:

 on the identification plate (B) which is located on the front portion near the steering head of the frame.

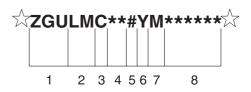


#### INFORMATION CONTAINED IN THE VEHICLE IDENTIFICATION NUMBER

Description of the vehicle identification number (V.I.N.), stamped on the steering head of the frame (A) and on the identification plate (B).



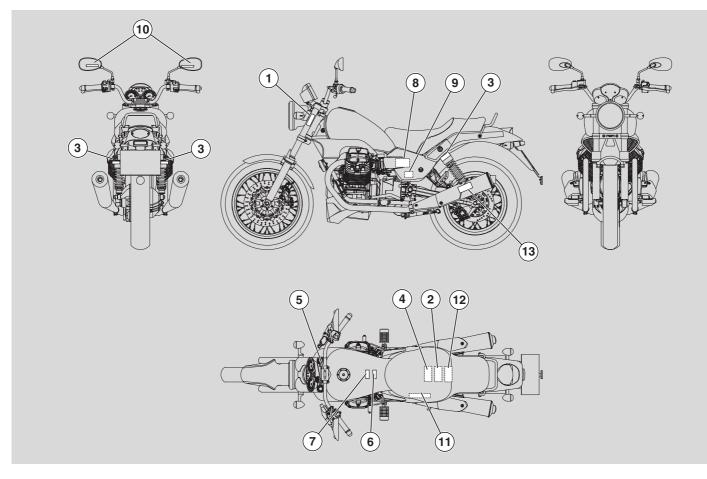




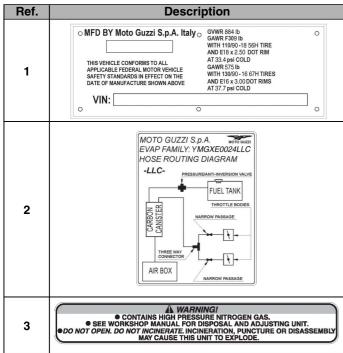
## **DIGIT MEANING**

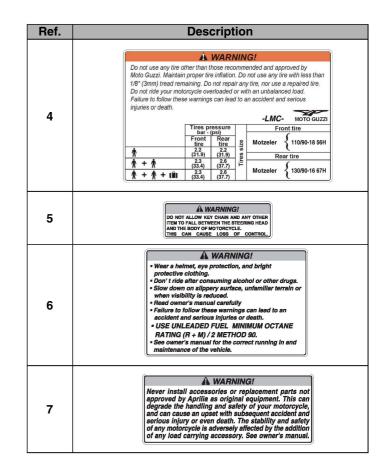
- 1) Manufacturer's identification alphanumeric code.
- 2) Vehicle type.
- 3) Model.
- 4) Country for which the vehicle is intended.
- 5) #= Check digit number.
- 6) Model year (Y).
- 7) Assembling factory designation (M = MANDELLO).
- 8) Sequential serial number

## **POSITION OF THE WARNING ADHESIVE LABELS**



#### WARNING ADHESIVE LABELS CHART





Follow ►

Ref.	Description	
8	HOTO GUZZI         MATTER SENIC           Mattern SENIC         Anternet & Havis Test Senice           Matheme & Bavis Test & data tacket & di nimitento induccatio boto ana aque delationatione i monesti della Anterio e del registro.         Anternet Matternet Senice I Anterio and Anterio and Anternet Anterio and Anterio and Anterio Anterio Anterio and Anterio and Anterio Anterio Anterio and Anterio and Anterio Anterio and Anterio Anterio Anterio and Anterio Anterio Anterio and Anterio Anterio and Anterio Anterio and Anterio Anterio Anterio and Anterio An	
9	WARNING! Contain sulfuric acid which can cause severe injuries. Avoid contact with skin, eyes or clothing. Antidote: EXTENNAL - Flush with water. INTERNAL - Drink large quantities of water or milk. Follow with milk of magnesis, beater agg or veg. oil. Call physician immediately. Eyes: Flush with water for 15 minutes and get prompt medical attention. KEEP OUT OF REACH OF CHILDREIN. Batteries produce explosive gases. Keep sparks, flames, cigaratites away. Charge only in weil-ventilated space. Always wear protective goggles when working around batteries. Always connect the battery vent tube. Failure to heed this warning will cause corrosion of the electrical system.	
10	(OBJECTS IN MIRROR ARE CLOSER THAN THEY APPEAR.)	
11	MOTORCYCLE NOISE EMISSION CONTROL INFORMATION THIS 20YY GUZLLC0744 MOTORCYCLE, C-1028 MEETS PA NOISE MOISSON REQUIREMENTS OF 80 dBA AT 3740 closing r.p.m. BY FEDERAL TEST PROCEDURE MODIFICATIONS WHICH CAUSE THIS MOTORCYCLE TO EXCEED FEDERAL NOISE STANDARDS ARE PROHIBITED BY FEDERAL LAW. SEE OWNER'S MANUAL. -LLC- MOTO GUZZI	

Ref.	Description	
12	VEHICLE EMISSION CONTROL INFORMATION -LLC- ENGINE DISPLACEMENT: 744 cc         ENGINE FAMILY YMGXC0.74LLC         THIS VEHICLE CONFORMS TO U.S. EPA AND CALIFORNIA         REGULATIONS APPLICABLE TO 20Y MODEL YEAR NEW         MOTORCYCLES AND IS CERTIFIED TO 1.4 HC+HOX G/KM         ENGINE FAMILY EXHAUST EMISSION STANDARD IN         CALIFORNIA.         ENGINE EXHAUST EMISSION STANDARD IN         CALIFORNIA.         ENGINE EXHAUST CONTROL SYSTEM: HO2S - 0C - TBI         ENGINE TUNIE UP SPECIFICATIONS         IGNITION TIMING: 24° ± 2° AT 2700 RPM         IDLE SPEED: 1100 ± 100 RPM IN NEUTRAL         VALVE CLEARANCE: INLET 0.0054:0066 inch (0.13*0.17 mm)         OUTLET 0.01*0.08 Binch (0.18*0.22 mm)         SPARK PLUG: NGK R BRESS         FUEL: MINIMUM OCTAME RATING (M+RY2 METHOD 90         OLI: ENGINE OLI VISCOSITY SAE 10W-60         MOTO GUZZI         Yaze Parvait 37         Yaze Parvait 37	
13	Muffler stamping.	

#### PART 575.6, CONSUMER INFORMATION

#### Piaggio Group Americas, Inc.

140 East 45th Street, 17th Floor New York, NY 10017 U.S.A.

#### **Reporting Safety Defects**

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying **Piaggio Group Americas, Inc.** 

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in any individual problems between you, your dealer, or

#### Piaggio Group Americas, Inc.

To contact NHTSA you may either call the Auto Safety Hotline toll-free at 1-888-327-4236 or write to:

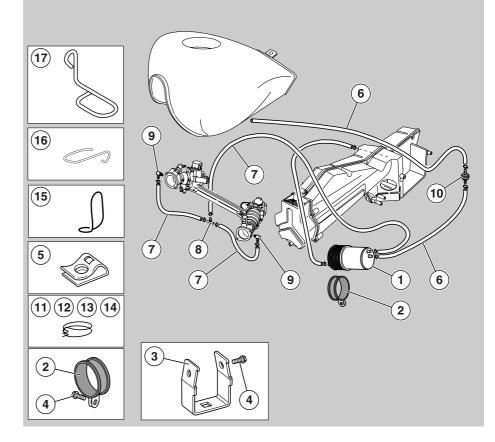
NHTSA U.S. DEPARTMENT of TRANSPORTATION 400 7th Street SW, (NVS-223) Washington, DC 20590

You can also obtain other information about motor vehicle safety from the Hotline.

### **EVAPORATIVE EMISSION SYSTEM**

The system consist of:

- 1) Carbon filter
- 2) Hose clamp
- 3) Support plate
- 4) Screw
- 5) Clip
- 6) Pipe
- 7) Fuel pipe
- 8) 3-way union
- 9) Union
- 10) Pressure valve
- 11) Hose clamp
- 12) Hose clamp
- 13) Hose clamp
- 14) Hose clamp
- 15) Cable-guide
- 16) Cable-guide
- 17) Cable-guide



**NOTE** In the event of a fuel system malfunction, contact your Local **Moto Guzzi** Dealer

#### Moto Guzzi S.p.A. - EMISSION CONTROL SYSTEM WARRANTY STATEMENT

#### YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and Moto Guzzi S.p.A. (hereinafter "Moto Guzzi") are pleased to explain the emission control system warranty on your 1999 and later motorcycle. In California, new motor vehicles must be designed, built and equipped to meet the State's stringent anti-smog standards. Moto Guzzi must warrant the emission control system on your motorcycle for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your motorcycle.

Your emission control system may include parts such as the carburetor or fuel injection system, ignition system, catalytic converter and engine computer. Also included may be hoses, belts, connectors and other emission-related assemblies.

Where a warrantable condition exists, **Moto Guzzi** will repair your motorcycle at no cost to you, including diagnosis, parts and labor.



#### MANUFACTURER'S EMISSIONS SYSTEM WARRANTY COVERAGE

Class I motorcycles (50 - 169 cm<sup>3</sup>): for a period of use of five (5) years or 7,456 miles (12,000 kilometers), whichever first occurs.

Class II motorcycles (170 - 279 cm<sup>3</sup>): for a period of use of five (5) years or 11,185 miles (18,000 kilometers), whichever first occurs.

Class III motorcycles (280 cm<sup>3</sup> and larger): for a period of use of five (5) years or 18,641 miles (30,000 kilometers), whichever first occurs.

If an emission-related part on your motorcycle is defective, the part will be repaired or replaced by **Moto Guzzi**. This is your emission control system DEFECTS WARRANTY.

### OWNER'S WARRANTY RESPONSIBILITIES

- As the motorcycle owner, you are responsible for the performance of the required maintenance listed in your owner's manual. Moto Guzzi recommends that you retain all receipts covering maintenance on your motorcycle, but Moto Guzzi cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.
- You are responsible for presenting your motorcycle to an Moto Guzzi dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.
- As the motorcycle owner, you should be aware that Moto Guzzi may deny your warranty coverage if your motorcycle or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

If you have any questions regarding your warranty rights and responsibilities, you should contact

### Piaggio Group Americas, Inc.

140 East 45th Street, 17th Floor New York, NY 10017 U.S.A.

Phone 001 212 380 4400 Fax 001 212 380 4459

#### Moto Guzzi S.p.A. - LIMITED WARRANTY ON EMISSION CONTROL SYSTEM

**Moto Guzzi S.p.A.**, Via E. V. Parodi, 57 23826 Mandello del Lario (LECCO) Italy (hereinafter "**Moto Guzzi**") warrants that each new 1999 and later **Moto Guzzi** motorcycle, which includes as standard equipment a headlight, taillight and stoplight, and is street legal:

- A) iis designed, built and equipped so as to conform at the time of initial retail purchase with all applicable regulations of the United States Environmental Protection Agency, and the California Air Resources Board; and
- B) is free from defects in material and workmanship which may cause such motorcycle to fail to conform with applicable regulations of the United States Environmental Protection Agency or the California Air Resources Board for a period of use, depending on the engine displacement, of 12,000 kilometers (7,456 miles), if the motorcycle's engine displacement is less than 170 cubic centimeters; of 18,000 kilometers (11,185 miles), if the motorcycle's engine displacement is equal to or greater than 170 cubic centimeters but less than 280 cubic centimeters: or of 30.000 kilometers (18,641 miles), if the motorcycle's engine displacement is 280 cubic centimeters or greater; or 5 (five) years from the date of initial retail delivery, whichever first occurs.

I. COVERAGE. Warranty defects shall be remedied during customary business hours at any authorized Moto Guzzi motorcycle dealer located within the United States of America in compliance with the Clean Air Act and applicable regulations of the United States Environmental Protection Agency and the California Air Resources Board. Any part or parts replaced under this warranty shall become the property of Moto Guzzi.

In the State of California only, emission related warranted parts are specifically defined by the state's Emission Warranty Parts List. These warranted parts are: carburetor and internal parts; intake manifold; fuel tank; fuel injection system; spark advance mechanism: crankcase breather; air cutoff valves; fuel tank cap for evaporative emission controlled vehicles; oil filler cap; pressure control valve; fuel/vapor separator; canister; igniters; breaker governors; ignition coils; ignition wires: ignition points: condensers. and spark plugs if failure occurs prior to the first scheduled replacement; and hoses, clamps, fittings and tubing used directly in these parts. Since emission related parts may vary from model to model, certain models may not contain all of these parts and certain models may contain functionally equivalent parts.

In the State of California only, Emission Control System emergency repairs, as provided for in the California Administrative Code, may be performed by other than an authorized Moto Guzzi dealer. An emergency situation occurs when an authorized Moto Guzzi dealer is not reasonably available, a part is not available within 30 days, or a repair is not complete within 30 days. Any replacement part can be used in an emergency repair. Moto Guzzi will reimburse the owner for the expenses. including diagnosis, not to exceed Moto Guzzi's suggested retail price for all warranted parts replaced and labor charges based on Moto Guzzi's recommended time allowance for the warranty repair and the geographically appropriate hourly labor rate. The owner may be required to keep receipts and failed parts in order to receive compensation.

- II. **LIMITATIONS**. This Emission Control System warranty shall not cover any of the following:
- A) Repair or replacement required as a result of

(1) accident,

(2) misuse,

(3) repairs improperly performed or replacements improperly installed,,

(4) use of replacement parts or accessories not conforming to **Moto Guzzi** specifications which adversely affect performance and/or

(5) use in competitive racing or related events.

- B) Inspections, replacement of parts and other services and adjustments required for required maintenance.
- C) Any motorcycle on which the odometer mileage has been changed so that actual mileage cannot be readily determined.

#### **III. LIMITED LIABILITY**

- A) The liability of Moto Guzzi under this Emission Control System Warranty is limited solely to the remedying of defects in material or workmanship by an authorized Moto Guzzi motorcycle dealer at its place of business during customary business hours. This warranty does not cover inconvenience or loss of use of the motorcycle or transportation of the motorcycle to or from the Moto Guzzi dealer. Moto Guzzi SHALL NOT BE LIABLE FOR ANY OTHER EXPENSES, LOSS OR DAMAGE, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL OR ARISING EXEMPLARY IN CONNECTION WITH THE SALE OR USE OF OR INABILITY TO USE THE Moto Guzzi MOTORCYCLE FOR ANY PURPOSE, SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.
- B) NO EXPRESS EMISSION CONTROL SYSTEM WARRANTY IS GIVEN BY EXCEPT AS Moto Guzzi SPECIFICALLY SET FORTH HEREIN. ANY EMISSION CONTROL SYSTEM WARRANTY IMPLIED BY LAW, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO THE EXPRESS EMISSION CONTROL SYSTEM WARRANTY TERMS STATED IN THIS WARBANTY, THE FOREGOING STATEMENTS OF WARRANTY ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REMEDIES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.
- C) No dealer is authorized to modify this **Moto Guzzi** Limited Emission Control System Warranty.
- IV. **LEGAL RIGHTS**. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.
- V. THIS WARRANTY IS IN ADDITION TO THE **Moto Guzzi** LIMITED MOTORCYCLE WARRANTY.

VI. **ADDITIONAL INFORMATION**. Any replacement part that is equivalent in performance and durability may be used in the performance of any maintenance or repairs. However, **Moto Guzzi** is not liable for these parts. The owner is responsible for the performance of all required maintenance. Such maintenance may be performed at a service establishment or by any individual. The warranty period begins on the date the motorcycle is delivered to an ultimate purchaser.

#### Moto Guzzi

Via E. V. Parodi, 57 23826 Mandello del Lario (LECCO) Italy

#### Piaggio Group Americas, Inc.

140 East 45th Street, 17th Floor New York, NY 10017 U.S.A.

## **GENERAL INSTRUCTIONS**

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

If not expressly indicated otherwise, to reassemble the units repeat the disassembly operations in reverse order.

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

These data indicate:

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

and are to be supplied to the Local **Moto Guzzi** Dealer as reference data for the purchase of spare parts or specific accessories of the model you have acquired. In this manual the various versions are indicated by the following symbols:

#### OPT optional

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# **SAFE DRIVE**

## **BASIC SAFETY RULES**

The instructions given below cover normal operation of your vehicle and must be carefully observed. By following these rules you will enhance your own safety and the safety of those around you. You will also maximize the life and utility of your vehicle.

Two-wheeled vehicles obviously do not provide some of the protection provided by automobiles, therefore it is essential that you wear appropriate protective clothing. Especially, never operate your vehicle without wearing your helmet, gloves, eye protection, a heavy jacket, sturdy footwear, and sturdy full length pants.

However, do not assume that even the best clothing and helmet will protect you in the event of an upset or a crash with another vehicle. At best, this gear provides some protection from scrapes and scratches, but very little, if any, impact protection.

Be sure that you meet all the requirements prescribed by local law, including driver's license, minimum age, training, insurance, taxes, vehicle registration, license plate, etc.

When you first receive your vehicle, practice by riding in areas where there is little traffic. Do not attempt to ride in heavy traffic until you are thoroughly experienced and riding your vehicle has become second nature to you.



Although this vehicle is legal for operation on freeways and expressways, it is advisable to not ride on these high speed highways until you are thoroughly familiar with your vehicle, and have attained a high degree of skill in its operation.

A new vehicle must be carefully broken in, see 59 (RUNNING-IN).

Before starting the engine, make sure that the brakes, clutch, transmission and throttle controls function properly and that the fuel and oil supply is adequate.

The exhaust system, brakes, and some other parts of the vehicle become very hot during operation. Do not touch any of these parts.

Some medicines or drugs, illegal or prescription, and alcohol significantly increase the risk of accidents. Do not ride while you are under the influence of alcohol or drugs, be they illicit or prescription. Make sure you are in good



physical condition and not ill before riding your vehicle. Do not ride your vehicle when you are particularly tired or fatigued. Alcohol, drugs and fatigue are leading causes of vehicle accidents.

Many accidents are caused by the rider's inexperience and lack of training. Do not ride your vehicle until you have received training from a recognized training organization such as the Motorcycle Safety Foundation. Remember that riding a twowheeled vehicle, though easy and fun, is quite different from driving a car. Do not assume that you can operate your vehicle safely just because you are a competent automobile driver.

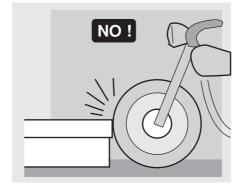
Never lend your vehicle to others unless you are sure that they are competent and properly licensed vehicle operators.



Observe all rules of the road. Pay particular attention to all warning, regulatory and informational signs.

Avoid showing off (i.e., popping wheelies). Especially observe speed limits; remember that road conditions change with the weather and wet and icy pavements are particularly dangerous for vehicles, especially if you are riding too fast. Remember that automobile drivers have a hard time seeing two wheeled vehicles, so always give the automobile the right of way, even if it is legally yours.

Before changing lanes, look over your shoulder to make sure that the way is clear. Do not rely exclusively on the rearview mirror: you may miscalculate the distance and speed of a vehicle, or you may even not see it at all.

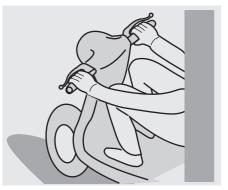


Avoid obstacles that could damage the vehicle or make you lose control.

Do not tailgate, do not attempt to increase your gas mileage by following in the slip stream of cars or trucks in front of you.

In case of accident motorcycles, scooters and mopeds do not provide the same degree of protection ensured by automobiles. The legs, in particular, are exposed to the risk of being injured. However, the additional installation of leg guards may actually increase the risk of injuries and their seriousness in case of accident.

Do not install leg guards available on the market as spare parts and accessories. Failure to comply with these instructions may result in serious injuries or even death.



Always ride with both hands on the handlebars and feet on the footrests.

Never shift gear without using the clutch, if the vehicle is so equipped. Do not operate the shift lever or other controls suddenly or abruptly. Such misuse can damage the internal components of the vehicle and consequently cause seizure, loss of control, accidents and serious injuries or even death.

Remain in the seat when you are riding. Do not stand up or attempt to stretch while you are riding your vehicle. If you need to rest, pull over to the side of the road when it can be safely done.





It is very important to your safety that you give full attention to the riding task. Watch what you are doing, do not allow yourself to be distracted by other cars, people or things on the roadside, etc. Never smoke, eat, drink, read, etc. while riding your vehicle. If you must consult a map, pull over when it can be done safely.

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

If the throttle sticks open, it may cause a collision with another vehicle, or an upset.

If the throttle sticks, kill the engine with the engine stop switch located on the right handlebar.

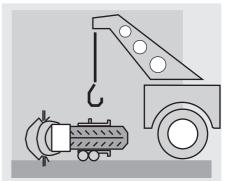
Do not attempt to restart the engine until the throttle has been repaired and works perfectly. Failure to obey this warning can lead to a runaway with seriously injuries or even death. Your vehicle is equipped with a double cable throttle. One cable opens the throttle when you rotate the throttle grip toward you; the other closes the throttle when you rotate the grip away from you. It is essential, when you release the throttle grip, that it automatically return to the idle position.

This double cable arrangement enhances safety by providing for positive closing of the throttle.

# WARNING

In the event of a throttle sticking emergency, always kill the engine using the engine stop switch located near the throttle grip on the right handlebar. Never use your vehicle if the throttle does not automatically fully return to the idle position when the throttle grip is released.

Contact your Local Moto Guzzi Dealer

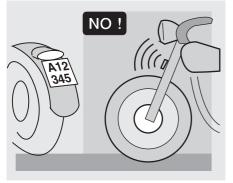


for repairs. Failure to heed this warning can lead to a serious accident and subsequent injury or even death.

If you and your vehicle are involved in an accident, make sure there has been no damage to the control levers, tubes, wires, braking system and other vital parts. If your vehicle is involved in an accident, take it immediately to your Local **Moto Guzzi** Dealer who has the equipment and knowledge to check for accidental damage which may compromise your safety.

Your **Moto Guzzi** dealer is ready and able to help you with any safety problems that you might have, but of course it is necessary for you to report any malfunctions to your mechanic in order for him to help you.

Do not use your vehicle if it is damaged. A damaged vehicle may become unstable or present other problems which can increase the risk of accident, and therefore of serious injury or even death.





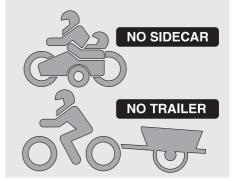
Do not attempt to modify the position, angle or color of your license plate. Do not cover it even with a clear plastic covering. Do not modify any of the safety equipment of your vehicle, especially such safety related items as directional indicators, rear view mirrors, lights or horns.

Any modification to your vehicle will invalidate the warranty.

Do not modify your engine in an attempt to increase the horsepower. This can result in irreparable damage to the engine, as well as degradation of the performance and handling of the vehicle which could lead to an upset, and serious injury or even death. Have your vehicle repaired only with original parts, and use only original **Moto Guzzi** or **Moto Guzzi** approved accessories. The use of aftermarket accessories and parts can seriously compromise the safety of your vehicle as well as its performance and serviceability. Any modification which affects performance or safety voids your warranty completely.

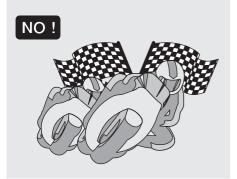
Tampering with the emissions or noise control systems on your vehicle is against the law, and can be punished by large fines.

In some jurisdictions, it can even lead to the confiscation of your vehicle.



This vehicle was not designed to be equipped with a sidecar or to be used to tow trailers or other vehicles.

**Moto Guzzi** does not manufacture sidecars or trailers and therefore cannot predict the effects of such accessories on the maneuverability or stability of the vehicle: it can only warn that such effects may be negative and that any damage to the vehicle components caused by the use of such accessories will not be covered by the warranty.



Never race other vehicles with your vehicle.

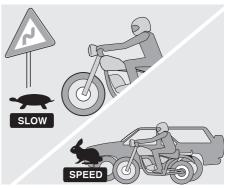
Brake with both the front and rear brakes. The use of one brake only for sudden braking may cause the vehicle to skid or make the rider lose control of the vehicle itself.

When riding down a steep hill, use the engine as a brake by selecting the same gear, or a lower gear, than you would use to climb the hill. Use front and rear brakes sparingly.



Always ride at the appropriate speed and avoid unnecessary hard acceleration. This not only is safer, but also reduces fuel consumption and increases the life of the vehicle.

If you must ride your vehicle in rainy weather, or on loose surfaces, remember that traction is greatly reduced. Under these conditions, the vehicle must always be handled gradually and smoothly. Sudden acceleration, braking or turning may make you lose control of your vehicle. When traction is reduced, accelerate and slow using your vehicle's engine braking insofar as possible. Avoid rapid, harsh application of the brakes.



Gradually open and close the throttle, to avoid spinning or skidding the rear wheel.

On rough road surfaces, slow down and ride with particular care.

Try to avoid wide open throttle accelerations, unless they are necessary for such things as passing.

Don't allow your engine to "lug," that is, run at too low an rpm. Shift down to a lower gear. Also, don't over-rev the engine. Observe the redline on the tachometer.

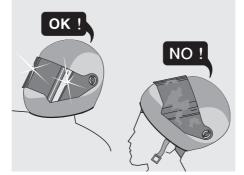
Remember that excessively aggressive cornering can cause your vehicle's tires to lose sideways traction, which can result in an upset and serious injury or even death.



Always observe posted and statutory speed limits, but do not assume that you can ride as fast as the speed limit under all road conditions. Slowing down a little can greatly increase your safety under all road conditions.

Do not ride your vehicle off road.

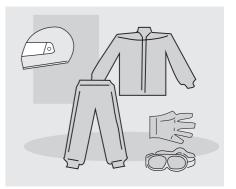
Do not tamper with the muffler system or the emissions control system of your vehicle. This is not only bad for the environment, it can subject you to serious fines.



### CLOTHING

Before riding your vehicle, ensure that your riding gear is in good condition. To be effective, your helmet must fit properly, and the visor or other eye protection must be clean.

Both research and experience have shown that drivers of other vehicles often do not see vehicles or riders. In order to make yourself more conspicuous to these drivers, wear bright reflective clothing, such as a reflective vest, or clothing with reflective sections sewn into the jacket, pants and gloves. Be particularly aware of approaching automobiles and trucks that might be trying to turn left in front of you. Many vehicle accidents are caused by an opposing automobile driver making a left turn without warning in front of the vehicle.

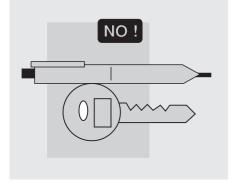


Inevitably, the driver will look right at you, and yet swear that they did not see you before they turned directly into your path. Ride alert!

Wear protective clothing, preferably in light and/or reflecting colors. 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.

Always wear your crash helmet. Many accidents are fatal because of injuries to the head.

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.

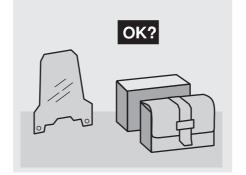


Do not carry sharp objects in your pockets that could be dangerous in case of an upset, for example, pens or mechanical pencils, etc. Also, make sure that your passengers follow this recommendation.

### ACCESSORIES

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

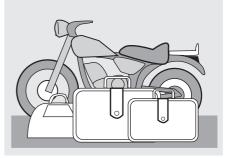
Installing inappropriate accessories or overloading the vehicle may result in the instability of the vehicle itself and cause accidents, with consequent risk of serious injuries or even death. Windshields could be particularly dangerous, as they can break and injure or cut the rider in case of accident. In case of doubts with regard to any accessory you would like to install or any load you would like to carry, first consult your Local **Moto Guzzi** Dealer.



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

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

Fairings and windshields installed on the vehicle may produce aerodynamic forces that will affect the stability of the vehicle during use, especially at high speeds.



Make sure that anything you carry on your vehicle is securely attached, and cannot come loose and jam the wheels, forks, etc. Do not install any electrical accessories, and do not modify the electrical system of your vehicle. Anything that could cause an electrical overload or other fault could cause the vehicle to suddenly stop, the lights to dim or quit, or the horn and other safety accessories not to work. Use only genuine **Moto Guzzi** accessories.

## LOAD

Do not overload your vehicle. Attach luggage or packages as close as possible to the center of your vehicle, and distribute the load from side to side as evenly as possible, to keep imbalance to a minimum. Remember that loads tend to loosen with riding, so frequently check the security of your load.





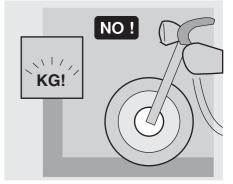
Do not hang anything from your vehicle handlebars, fenders, or forks, because this will upset the handling of your vehicle, and could prevent you from avoiding an accident. Failure to heed this warning can lead to an upset with subsequent serious injury or even death.

Do not ride with your crash helmet hung from the strap because it could easily foul the wheels, fenders, or forks, causing an upset and subsequent serious injury or even death.

Carry a passenger only if your vehicle is equipped with passenger footrests, handgrips for the passenger to hold on to, and a passenger saddle.

When carrying a passenger, remember that your vehicle's handling is degraded, that the brakes are less efficient, and the center of gravity is higher and further to the rear. This makes it more likely that the front wheel will come up off the ground, especially on acceleration. Therefore, you should avoid hard acceleration and hard braking. Many accidents are caused by inexperienced riders carrying passengers. Remember that allowance must be made for the extra weight of the passenger for all driving maneuvers.

Avoid abrupt and excessive acceleration. Always slow down in time and calculate longer stopping and maneuvering distances. Failure to comply with these instructions may lead to overturning the vehicle or to other accidents, with consequent serious injuries or even death.



Never carry loosely packaged items; make sure that everything you carry on your vehicle is carefully secured.

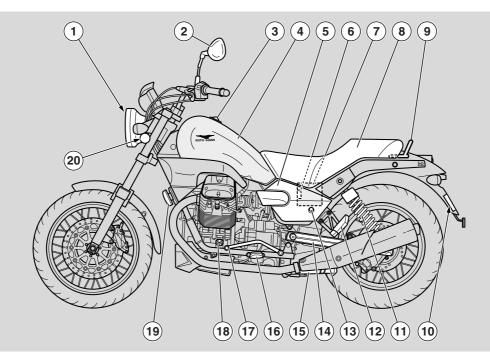
Do not carry packages that protrude from the luggage rack or that cover any of the signal lights, the headlight, or the horn.

Never carry animals or children on the glove compartment or luggage rack.

Never exceed the labeled maximum load for each saddlebag.

Overloading your vehicle seriously reduces its stability and maneuverability and can lead to an upset with subsequent serious injury or death.

## LOCATION OF KEY COMPONENTS - KEY

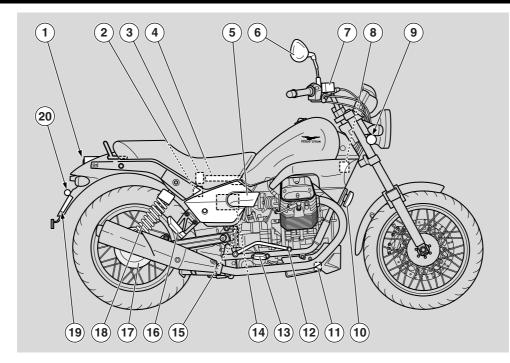


#### KEY

- 1) Headlight
- 2) Left rearview mirror
- 3) Fuel tank filler plug
- 4) Fuel tank
- 5) Left side body panel
- 6) Main fuse carrier (30A)
- 7) Battery

8) Passenger/rider seat
9) Passenger grab handle
10)Left rear reflector
11)Left rear shock absorber
12)Left passenger footpeg
13)Seat lock
14)Rear swinging arm

15)Side stand 16)Left rider footpeg 17)Gear change lever 18)Engine oil dipstick 19)Left horn 20)Left front reflector



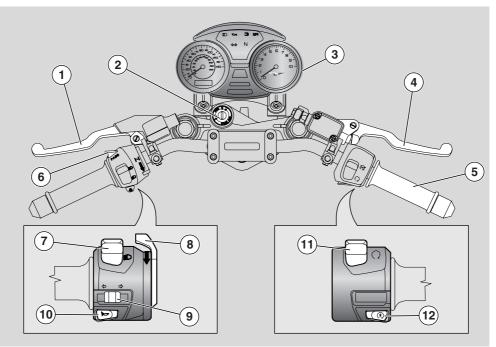
#### KEY

- 1) Tail light
- 2) Rear brake fluid reservoir
- 3) Auxiliary fuse carrier
- 4) Glove/tool kit compartment
- 5) Right side body panel
- 6) Right rearview mirror
- 7) Front brake fluid reservoir
- 8) Air filter

9) Right front reflector 10)Right horn 11)Engine oil filter 12)Rear brake lever 13) Right rider footpeg 14)Engine Control Unit (Magneti Marelli IAW 15RC CA)

- 15)Rear brake master cylinder 16) Right passenger footpeg 17)Cardan shaft
- 18)Right rear shock absorber
- 19) Right rear reflector
- 20)Rear reflector

## LOCATION OF INSTRUMENTS/CONTROLS

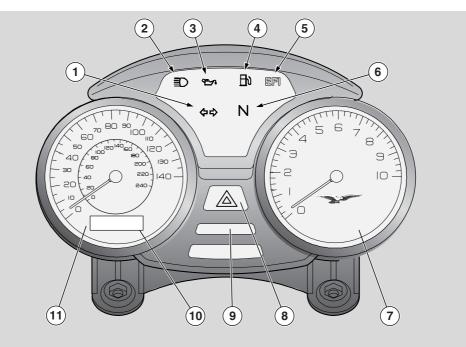


LOCATION OF INSTRUMENTS/CONTROLS - KEY

- 1) Clutch lever
- 2) Ignition switch/steering lock (  $\bigcirc$   $\bigotimes$   $\widehat{\mathbb{H}}$  )
- 3) Instruments and indicators
- 4) Front brake lever
- 5) Throttle grip
- 6) High beam flasher passing button (≣□)
- 7) Dimmer switch (≝D-≣D)

- 8) Choke lever  $(|\mathbf{x}|)$ 9) Turn indicator switch  $(\langle \Box \Box \rangle)$ 10)Horn button  $(\succ)$ 11)Engine stop switch  $(\bigcirc -\bigotimes)$
- 12)Starter button ( ( ))

## **INSTRUMENTS AND INDICATORS**



#### LOCATION OF INSTRUMENTS/CONTROLS - KEY

- 1) Green turn indicator warning light ( $\langle \Box \Box \rangle$ )
- 2) Blue high beam warning light (≣□)
- 3) Red engine oil pressure warning light (
- 4) Amber low fuel warning light ( 🖷)
- 5) Red " EFI warning light 6) Green neutral light ( $\mathbb{N}$ )
- 7) Rev counter

8) Red emergency indicator button ( $\triangle$ ) 9) TRIP button (multifunction display) 10)Multifunction digital display 11)Speedometer

### **INSTRUMENTS AND INDICATORS TABLE**

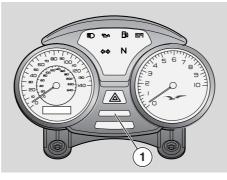
Description		Function			
Direction indicator warning light (석다)		It blinks when the direction indicator is on.			
High beam warning light ( $\equiv \bigcirc$ )		Comes on when the headlight high beam is on or when you flash the high beam.			
Engine oil pressure warning light (선소)		Comes on when the ignition switch is set to " ()" with the engine stopped as a lamp test. If the light fails to come on upon starting, contact a <b>Moto Guzzi</b> Authorized Dealer.			
		CAUTION     If the engine oil pressure light (*) stays on after the engine comes on during normal engine operation, it means that engine in the circuit is low. If so, stop the engine immediately and contact a Moto Guzzi Autore Comes on the engine im	ine oil pressure		
Fuel reserve light ( 🕞)		It comes on when the quantity of fuel left in the tank is approx. 4 litres. When the light comes on, refuel as soon as possible, see page 39 (FUEL).			
Electronic fuel injection check light ( <i>EFI</i> )		It comes on for about three seconds whenever the ignition switch is set to " ()" with the engine stopped as a test of injection system operation. After starting the engine, the light must go out within 3 seconds.			
		CAUTION     If the light comes on during normal engine operation, it means that the electronic fuel injection system is not operating correctly. If so, stop the engine immediately and contact a Moto Guzzi Authorized Dealer.			
Neutral indicator light ( 📉 )		Turns on when gearbox is in neutral.			
Rev counter (rpm)		Indicates engine rpm.           A CAUTION         Never exceed engine maximum speed, see page 59 (RUNNING-	IN).		
Emergency flasher button ( 📐 )		Flashes when pressed. It indicates that all four emergency warning lights (turn indicators) are flashing.			
Multifunction digital display	Total odometer/ trip (km/mi)	Gives total distance covered or distance covered since the trip meter was last reset (in km or miles).	To toggle be- tween readouts,		
	Clock	Indicates hours and minutes according to setting.			
	External temperature	Displays external temperature.			
Speedometer		Indicates road speed.			



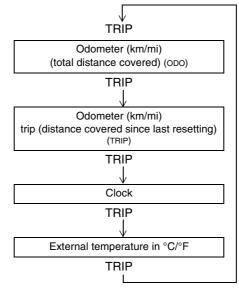
# MULTIFUNCTION DIGITAL DISPLAY

When you turn the ignition key to "  $\bigcirc$  ", the following instrument panel lights will turn on:

- (Red) engine oil pressure light (1); this light stays on until the engine starts.
- All segments of the multifunction digital display come on for about 2 seconds to test their operation. Afterwards, the display will switch to total distance 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 total distance 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 distance covered indication (ODO) is displayed, regardless of which function had been selected previously.

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

Indicates the distance covered since last resetting in kilometres or miles.

To reset the trip meter, 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 button (1): the parameters listed in the table will be displayed in sequence.

Keep the TRIP button (1) pressed for more than 3 seconds to enter hour setting mode. Hour indication flashes. Press the "TRIP" button and the hours indication will increase by 1 hour each second the button is held down. Three seconds after the "TRIP" button has been released, the hours will stop flashing. Set data are confirmed and setting automatically switches to seconds. Minutes indication flashes. Press the "TRIP" button and the minutes indication will increase by 1 minute each second the button is held down. Three seconds after the "TRIP" button has been released, the minutes will stop flashing and set data are confirmed.

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

#### External temperature in °C/°F

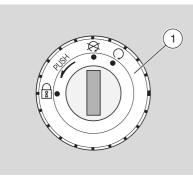
Indicates the external temperature reading. When ambient temperature drops below  $3^{\circ}$ C, the display will switch to the ICE mode to warn against possible black ice. When this mode is activated, the display will automatically switch from the current function to a flashing air temperature indication. The ICE mode remains enabled for 10 seconds and then the display switches back to the function displayed earlier. If the external temperature stays below  $3^{\circ}$  C, the ICE mode flashing indication is repeated every five minutes for three times maximum.

If the air temperature sensor is faulty or disconnected, two flashing horizontal segments will be displayed.

#### **HAZARD** button operation

Pressing the HAZARD button turns on all four turn indicators (the button will also flash when activated). 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 " $\bigcirc$ " and then press the HAZARD button.

#### MAIN INDEPENDENT CONTROLS



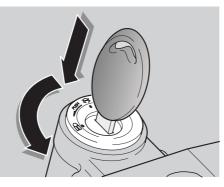
#### **IGNITION SWITCH**

The ignition switch (1) is mounted to the top yoke 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** Store the spare key in a safe place (other than the vehicle).



### **STEERING LOCK**

## **WARNING**

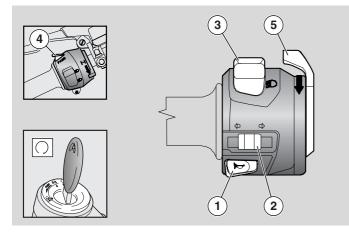
Never turn the key to position "  $\bigcirc$  " when riding, or you will lose control of the vehicle.

#### OPERATION

To lock the steering:

- Turn the handlebar fully to the left.
- $\bullet$  Turn the key to " $\otimes$ ".
- ◆ Push in the key and turn it to position " ∩ ".
- Extract the key.

Position	Function	Key removal
T Steering lock	The steering is locked. It is not possible to start the engine or switch on the lights.	It is possible to remove the key.
$\bigotimes$	Neither the engine, nor the lights will operate.	It is possible to remove the key.
$\cap$	The engine and the lights can be operated.	It is not possible to remove the key.



## **CONTROLS ON LEFT HANDLEBAR**

**NOTE** The electric components only operate when the ignition switch is in the " $\bigcirc$ " position.

1) HORN BUTTON ( $\succ$ )

Press this button to operate the horn.

## 2) TURN INDICATION SWITCH (

To indicate the turn to the left, move the switch to the left; to indicate the turn to the right, move the switch to the right. Push in to cancel the indicators after turning.

**NOTE** The indicator repeater light flashing quickly indicates that one or both turn indicator bulbs are burnt out. For replacement instructions, please see page 94 (CHANGING THE FRONT AND REAR TURN INDICATOR BULBS). 3) DIMMER SWITCH (≣□ - ≡□ )

In position "  ${}_{\equiv}$  D", the low beam comes on, while if it is in position "  ${}_{\equiv}$  D", the high beam comes on.

## 4) HIGH BEAM FLASHER BUTTON ( $\equiv \bigcirc$ )

Press the button to flash the high beam in an emergency.

**NOTE** Release the button to turn off the high beam.

## 5) CHOKE LEVER $(|\mathbf{x}|)$

The choke device to start the engine from cold is operated by rotating the lever  $(|\mathbf{x}|)$  downwards. To disconnect the choke device, set the lever  $(|\mathbf{x}|)$  back to its initial position.

## **CONTROLS ON RIGHT HANDLEBAR**

**NOTE** The electric components only operate when the ignition switch is in the " $\bigcirc$ " position.

6) ENGINE STOP SWITCH ( $\bigcirc$ - $\bigotimes$ )

# **WARNING**

If the throttle sticks open, it may cause a collision with another vehicle, or an upset.

If the throttle sticks, kill the engine with the engine stop switch located on the right handlebar.

Do not attempt to restart the engine until the throttle has been repaired and works perfectly. Failure to obey this warning can lead to a runaway with seriously injuries or even death.

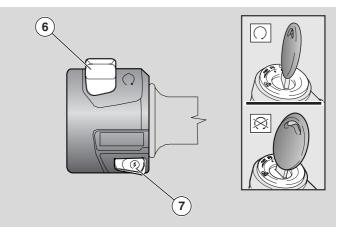
# **WARNING**

In the event of a throttle sticking emergency, always kill the engine using the engine stop switch located near the throttle grip on the right handlebar. Never use your vehicle if the throttle does not automatically fully return to the idle position when the throttle grip is released. Contact your Local **Moto Guzzi** Dealer for repairs. Failure to heed this warning can lead to a serious accident and subsequent injury or even death.

# **WARNING**

#### Do not operate the engine stop switch " $\bigcirc - \bigotimes$ " while riding.

This switch serves as a safety or emergency switch. With the switch pressed in position " $\bigcirc$ ", it is possible to start the engine; the engine can be stopped by pressing the switch to position " $\bigotimes$ ".



# **A** CAUTION

Use only the ignition switch (A) to stop the vehicle. Leave the engine stop switch (6) in the " $\bigcirc$ " (ON) position, and use it only in case of emergency.

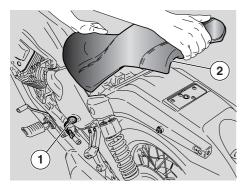
Do not leave the ignition on if you have stopped the engine for emergency by setting the engine stop switch to " $\bigotimes$ " (OFF), as this will discharge the battery.

When the vehicle has come to a complete stop after stopping the engine for an emergency using the engine stop switch, turn the ignition switch (A) to " $\otimes$ " (OFF).

## 7) STARTER BUTTON ( ( ))

When the starter button " " is pressed, the starter motor will crank the engine. For the starting procedure, see page 54 (STARTING).

#### **AUXILIARY EQUIPMENT**



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

- Place the vehicle on the stand, see page 61 (PUTTING THE VEHICLE ON THE STAND).
- Insert the key (1) into the seat lock.
- Rotate the key (1) anticlockwise, lift the seat (2) and pull rearwards.

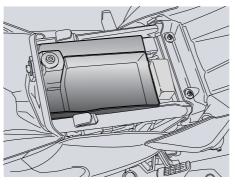
**NOTE** Before lowering and locking the seat (2), make sure that you have not left the key under the seat.

### To lock the seat (2):

- Slide the seat front end into place and lower the rear end.
- Push down on the rear end until the lock clicks shut.

# **A** WARNING

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



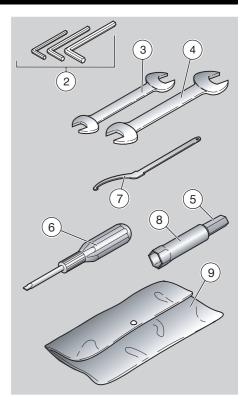
## **GLOVE/TOOL KIT COMPARTMENTS**

To access the glove/tool kit compartments:

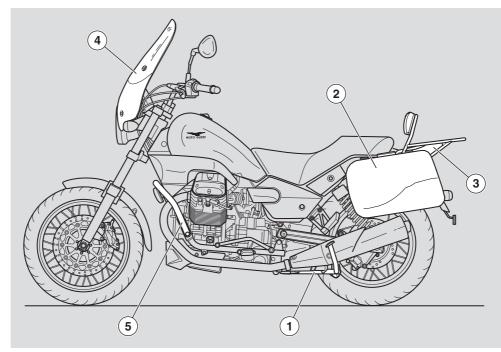
 Remove the passenger seat, see page 36 (UNLOCKING/LOCKING THE SEAT).

#### The tool kit includes:

- 5, 6, 8 mm L-shaped Allen keys (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 crosshead/flat-blade screwdriver (6);



- shock absorber preload adjustment spanner (7);
- 14 mm hexagon adapter (8)
- tool box (9).



#### WHERE PROVIDED (or as an accessory)

The following are available:

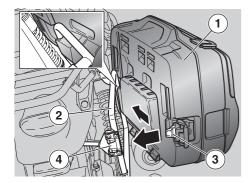
- center stand (1)
- side panniers (2)
- luggage rack with back rest (3)
- tall windshield (4)
- engine crash bar (5)

#### **ADDITIONAL ACCESSORIES**

The following are available:

- tank bag
- top case.

Please visit our web site for further details: www.motoguzzi.it - Accessories



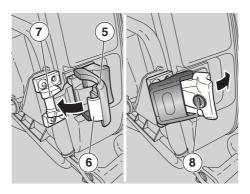
## INSTRUCTIONS FOR INSTALLING THE SIDE PANNIERS

Carefully follow instructions for correct installation and correct distribution/fastening of any load when installing the side panniers. This is important to vehicle handlingfrom being compromised, which could result in a fall, serious accident, or even death.

#### Fastening the side panniers

 Approach the pannier front side (1) to the mount (2) taking care to fit the mount vertical rod inside its housing in the pannier.

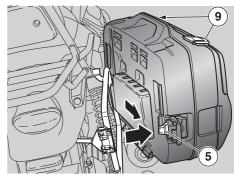
Center tab (3) in its seat (4) while supporting (and guiding) the pannier.



## Make sure that the pannier hooking points are properly fitted in their seats.

◆ Block the fastener (5) by inserting the tab (6) in the seat (7).

Fit the key into the lock (8) and turn it clockwise by 90° (horizontal position) to lock it



#### Removing the side panniers

- Ensure that the lock (8) is not locked (vertical position);
- ♦ Open fastener (5);
- Move the top case rear side away and slide the front hooking out.

To open the pannier cover, first release the relative locks with the key and then lift the two fasteners (9).

Maximum admitted weight for each side pannier is 5 kg; it is however advisable to balance the weight between the two panniers.

#### MAIN COMPONENTS

#### FUEL

#### **A** WARNING

Gasoline is extremely flammable and can become explosive in some conditions.

Therefore, it is necessary to refuel and carry out maintenance operations involving the fuel system in a wellventilated area with the engine off.

Do not refuel or do any maintenance on the fuel system with the engine running. Do not smoke while refueling or near fuel vapors.

Never allow any portion of the fuel system to come into contact with open flames, sparks or other heat sources. Be careful to avoid spilling fuel when you are refueling. Spilled fuel could ignite when it contacts hot engine or exhaust system surfaces. If you accidentally spill some fuel, make sure that it is wiped up or completely evaporated before starting the vehicle. Since gasoline expands in the fuel tank when the vehicle is sitting in the open sun, never fill the tank completely to the brim. Leave at least one inch of expansion space.

Avoid any contact between the fuel and your skin, and avoid inhaling fuel vapors. Never attempt to siphon fuel from one container to another using your mouth as suction for a siphon hose.

#### **WARNING**

Gasoline is poisonous and carcinogenic and contains chemical substances that cause birth defects and other reproductive problems. If gasoline should be accidentally spilled on the skin or clothes, immediately wash it off with soap and water and change clothes.

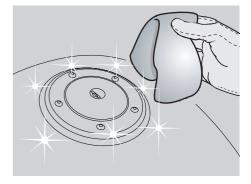
Should you accidentally spill gasoline in your eyes, flush with abundant water and contact a health professional immediately. Should you accidentally get gasoline into your mouth, do not induce vomiting. Drink a large quantity of milk or clear water and contact a health professional immediately.

Never try to siphon gasoline by sucking it with your mouth. Use a manual pump or similar system.

If your vehicle overturns it will leak gasoline, which is extremely flammable. Flames or sparks may ignite this, which will not only destroy the vehicle but also could seriously damage surrounding property and cause serious injuries or even death.

ALWAYS KEEP GASOLINE AWAY FROM CHILDREN.

DISPOSE OF UNWANTED GASOLINE PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.



Use only premium unleaded gasoline with a minimum octane rating of (M+R)/2 method 90.

FUEL TANK CAPACITY

(including reserve): 3.70 US gal (14  $\ell$ ).

RESERVE TANK: 1.06 US gal (4 ℓ).

#### REFUELING

To refuel, proceed as follows:

Place the vehicle on the stand, see p. 61 (PUTTING THE VEHICLE ON THE STAND).

If dirt has accumulated on or around the fuel filler cap, wipe the cap and the surrounding area with a clean cloth. Prevent any foreign material from getting into the fuel tank, as this could lead to serious engine damage.

#### To refuel, proceed as follows:

- Insert the key (1) into the tank plug lock (2).
- Turn the key counter clockwise, pull and remove the tank plug.

### **A**CAUTION

If you use a container or funnel for refueling, make sure that it is perfectly clean.

Any foreign matter getting into the fuel tank may lead to severe damage.

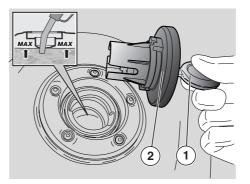
## **WARNING**

Do not add any additives or other substances to the gasoline.

## **A** WARNING

Do not fill the tank completely. The fuel should never be higher than the bottom rim of the filler neck.

♦ Refuel.



#### After refuelling:

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

 With the key (1) inserted, press the plug and tighten.

## **WARNING**

#### Make sure the plug is firmly closed.

◆ Remove the key (1).

#### LUBRICANTS

## **WARNING**

Proper vehicle lubrication is critical to safe operation. Failure to maintain proper lubricant levels or to use the proper type of clean, new lubricant, can lead to an engine or transmission seizure with subsequent accident, serious injury or death.

## **WARNING**

Use latex gloves for the maintenance operations that require contact with used oil. Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is advisable to thoroughly wash your hands with soap and water after handling used oil.

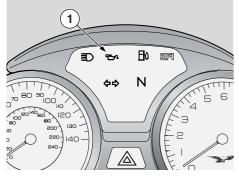
KEEP OIL AWAY FROM CHILDREN. DISPOSE OF OIL PROPERLY.

### **A**CAUTION

Be very careful to avoid spills when putting oil in your vehicle. Clean up any spilled oil immediately, because oil can damage the finish of your vehicle. Also, oil on the tires creates an extremely slippery and therefore dangerous situation.

## **A** CAUTION

In case of oil leakage do not ride your vehicle. Before using the vehicle, have it repaired by your Local **Moto Guzzi** Dealer.



#### **ENGINE OIL**

#### **WARNING**

If the engine oil pressure warning light LED " " " (1) remains on after the engine has started, or if it comes on while you are riding your vehicle, this means that the oil system is not developing sufficient pressure. In this case, stop the engine immediately and contact your Local **Moto Guzzi** Dealer. Failure to heed this warning can lead to engine seizure, upset, and serious injury or even death.



## **A**CAUTION

Perform these maintenance operations at double the specified intervals if your vehicle is often used in rainy or very dusty conditions, on unpaved roads, or in any kind of competition.

Check the engine oil level every 300 mi (500 km), see p. 72 (CHECKING AND TOPPING UP ENGINE OIL LEVEL).

### **A**CAUTION

Have your Local **Moto Guzzi** Dealer change the engine oil after the first 600 mi (1,000 km), and every 6213 mi (10000 km) thereafter.

**NOTE** Use high-quality 5W - 40 oil, see p. 103 (LUBRICANT CHART).

#### BRAKES

#### **WARNING**

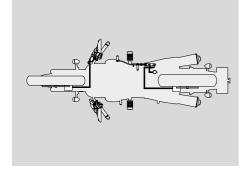
Do not ride your vehicle with worn or malfunctioning brakes! The brakes are the most important safety system on your vehicle, and using the bike with brakes that are anything less than perfect is very likely to lead to a collision or upset, with consequent risk of serious injury or death.

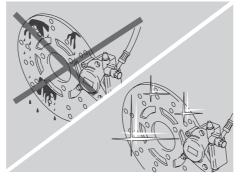
Check the brake pad wear, as shown on p. 80 (CHECKING THE BRAKE PADS FOR WEAR). Have your brakes serviced by your Local **Moto Guzzi** Dealer

#### **WARNING**

Wet conditions seriously degrade the performance of your brakes. When the road is wet from rain, you should plan to use double normal stopping distances since both the brakes themselves and the traction of the tires on the road are reduced by the presence of water.

Water on the brakes from washing your vehicle, or splashed up from wet roads, or crossing puddles or ditches, can wet the brakes sufficiently to greatly reduce their effectiveness. Failure to heed these warnings may lead to a serious accident with consequent risk of serious injury or even death.





**NOTE** This vehicle is equipped with front and rear disk brakes, with separate hydraulic circuits.

The following information refers to a single brake system, but is applicable to both.

#### **WARNING**

The brakes are extremely important to your safety. Do not use the vehicle if the brakes do not work perfectly. Always check the brake efficiency before riding.

## A WARNING

Sudden changes in clearance or elastic resistance on the brake lever are due to problems with the hydraulic system. Contact a **Moto Guzzi** Authorized Dealer, should you be in doubt as to whether your braking system is working perfectly, and if you are unable to carry out normal checks.

### **A** WARNING

Take special care to ensure that brake disks are not greasy or oily, especially after performing maintenance operations or checks.

Make sure that the brake lines are not twisted or worn.

Take care to prevent water and dust from accidentally entering the system. We recommend that you wear latex gloves when servicing the hydraulic system.

The brake fluid may cause irritation in contact with the skin or eyes.



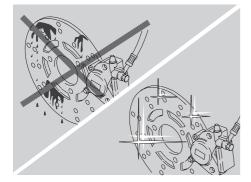
#### **WARNING**

Carefully wash any parts of the body that have come into contact with the fluid. In case of contact with the eyes, see an eye doctor or other physician. DISPOSE OF THE FLUID IN COMPLIANCE WITH ENVIRONMENTAL REGULATIONS.

KEEP OUT OF REACH OF CHILDREN.

#### **A**CAUTION

When using brake fluid, be careful not to spill it onto the plastic and painted parts, as it will damage them.



#### **DISK BRAKES**

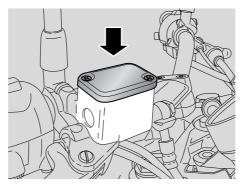
The brakes are key safety components and must be kept in perfect working order; check them before each ride.

A dirty disk will soil the pads, leading to loss of braking efficiency.

Dirty pads must be replaced, while dirty disks must be cleaned with a highquality degreaser.

Have brake fluid changed every two years by a **Moto Guzzi** Authorized Dealer.

Use brake fluid meeting the specifications listed in the lubricant chart, see page 103 (LUBRICANT CHART).



**NOTE** This vehicle is equipped with front and rear disk brakes operated by independent hydraulic circuits.

The front braking system has a single disk (left side).

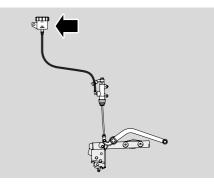
The rear braking system is the single disk type (left side).

The following information applies to both braking systems.

Brake fluid level decreases as the brake pads wear down.

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 footpeg bracket, on the righthand side of the motorcycle.



**NOTE** Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

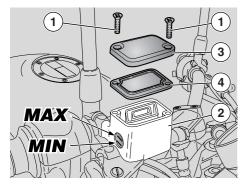
Have the brake disks checked by a **Moto Guzzi** Authorized Dealer after the first 625 mi (1000 km) and then every 1243 mi (2000 km).

Before leaving, check brake fluid level in the reservoirs, see page 44 (FRONT BRAKE), page 45 (REAR BRAKE), and check brake pads, see page 80 (CHECKING THE BRAKE PADS FOR WEAR).

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

### WARNING

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



#### FRONT BRAKE CHECK

- ◆ Place the vehicle on the stand, see page 61 (PUTTING THE VEHICLE ON THE STAND).
- Turn the handlebar fully to the right.
- ♦ Make sure that the fluid level exceeds the "MIN" mark.

MIN= minimum level

MAX= maximum level

If the fluid is below the "MIN" mark:

## **A** CAUTION

Brake fluid level decreases as the brake pads wear down.

 Check the brake disks and pads for wear, see page 80 (CHECKING THE BRAKE PADS FOR WEAR).

If the pads and/or the disk do not need replacing, top up fluid level.

#### **TOPPING UP**

Carefully read page 40 (LUBRICANTS).

## **A** CAUTION

Be careful, brake fluid may spill out. Do not operate the front brake lever if the screws (1) have been loosened or, most important, with the brake fluid reservoir plug removed.

 Unscrew the two screws (1) of the brake fluid reservoir (2) using a crosshead screwdriver.

## **WARNING**

Avoid long exposure of brake fluid to air. Brake fluid is hygroscopic and will absorb moisture from the air. Keep the brake fluid reservoir open JUST LONG ENOUGH to top up level.

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

## **A** CAUTION

Do not rock the motorcycle from side to side when topping up or brake fluid will spill out. Do not add any additives or other products. If you use a funnel or other tool, ensure they are perfectly clean. ◆ Top up the reservoir (2) with brake fluid, see page 103 (LUBRICANT CHART) until bringing level between the "MIN" and "MAX" marks.

## **A** CAUTION

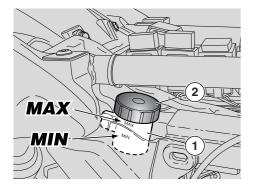
Do not exceed the "MAX" level mark.

Top up to "MAX" level only after changing the brake pads.

If topped up to "MAX" level with worn pads, brake fluid will spill out when you change the pads at a later time.

Check the brake for proper operation.

If brake lever travel is too long or in the event of loss of braking, contact a **Moto Guzzi** Authorized Dealer, as the system may need bleeding.



#### **REAR BRAKE**

#### CHECK

- Remove the right side body panel, see page 77 (REMOVING THE SIDE BODY PANELS).
- Keep the vehicle upright, so as to keep the fluid in the reservoir (1) level with the plug (2).
- Make sure that the fluid level exceeds the "MIN" mark.

MIN= minimum level

MAX= maximum level

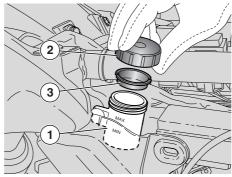
If the fluid is below the "MIN" mark:

## **A**CAUTION

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

 Check the brake disks and pads for wear, see page 80 (CHECKING THE BRAKE PADS FOR WEAR).

If the pads and/or the disk do not need replacing, top up fluid level.



#### **TOPPING UP**

Carefully read page 40 (LUBRICANTS).

## **A**CAUTION

Be careful, brake fluid may spill out. Do not operate the rear brake lever if the brake fluid reservoir plug has been loosened or removed.

## **WARNING**

Avoid prolonged exposure of brake fluid to air.

Brake fluid is hygroscopic and will absorb moisture from the air.

## Keep the brake fluid reservoir open JUST LONG ENOUGH to top up level.

◆ Unscrew and remove the plug (2).

## **A** CAUTION

Make sure the fluid in the reservoir is level with the reservoir rim (horizontal)

to avoid spilling fluid when topping up.

Do not add any additives or other products to the fluid.

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

- ◆ Remove the gasket (3).
- Top up the reservoir (1) with brake fluid, see page 103 (LUBRICANT CHART) until bringing level between the "MIN" and "MAX" marks.

## **A** CAUTION

Top up to "MAX" level only after changing the brake pads. If topped up to "MAX" level with worn pads, brake fluid will spill out when you change the pads at a later time.

Check the brake for proper operation.

If brake lever travel is too long or in the event of loss of braking, contact a **Moto Guzzi** Authorized Dealer, as the system may need bleeding.

#### TIRES

This vehicle is equipped with tires with inner tube.

**NOTE** Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

## **A** WARNING

Check the tire condition and inflation pressure at room temperature every two weeks, see page 100 (TECHNICAL DATA).

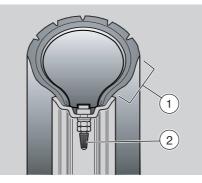
Check the conditions of the tires and the inflation pressure at room temperature after the first 625 mi (1000 km) and then every 4687 mi (7500 km), see page 100 (TECHNICAL DATA).

Measuring pressure on hot tires will lead to inaccurate measurement.

It is especially important to measure tire pressure before and after a long trip.

Overinflated tires will not absorb bumps when riding on rough road surfaces and resulting vibration is transferred through the handlebar, giving a harsh ride and reducing tire grip especially during cornering.

Conversely, underinflation will put more stress on the sidewalls (1) and the tire may slip on the rim or even come off the rim, leading to loss of control.



The tires could come off the rims under harsh braking.

Finally, the vehicle could skid during cornering.

### **WARNING**

Inspect tire surface condition and check for wear, as worn tires lead to poor road holding and handling.

Some of the tires approved for this vehicle are equipped with wear indicators.

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

Visually inspect the tires for wear and have them changed if worn.

Have a tire changed when worn or punctured, if the puncture in the tread is larger than 0.197 inch (5 mm).

Have the wheels balanced after each tire repair.

#### **WARNING**

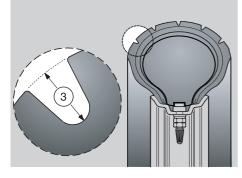
Use tires of the specified type and model recommended by the manufacturer, see page 100 (TECHNICAL DATA). Using other than specified tires may adversely affect handling.

Do not install tube tires on tubeless tire rims or vice versa.

Make sure that caps are in place on the valves (2), or the tires may deflate suddenly.

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

For this reason, it is advisable to have these operations carried out by a **Moto Guzzi** Authorized Dealer or by a qualified tire repairer.



New tires may be coated with an oily film: ride carefully until covering several kilometres. Never apply nonspecific products to the tires. Old tires, even if not completely worn down, may become hard and provide poor grip.

If so, have them replaced.

#### MINIMUM TREAD DEPTH (3):

front and rear 0.12 mm ( I 3 mm), anyway not less than required by the regulations in force in the country where the vehicle is used.

#### ENGINE OIL

## **WARNING**

Prolonged or repeated contact with engine oil may cause severe skin damage.

Wash your hands carefully after handling engine oil.

**KEEP AWAY FROM CHILDREN.** 

## DO NOT DISPOSE OF OIL IN THE ENVIRONMENT

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

Wear latex gloves during servicing.

## **A** CAUTION

If the engine oil pressure light " "" comes on during regular engine operation, it means that engine oil pressure in the circuit is low.

Stop the engine immediately, check and top up engine oil level, if needed, see page 72 (CHECKING AND TOPPING UP ENGINE OIL LEVEL); should it be incorrect, contact a **Moto Guzzi** Authorized Dealer.



### **A**CAUTION

Proceed with care.

Do not spill the oil!

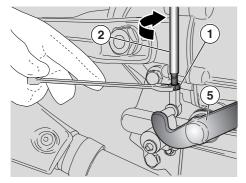
Take care not to smear any component, the area in which you are working and the surrounding area. Carefully remove any trace of oil.

# In case of leakage or malfunction, contact a **Moto Guzzi** Authorized Dealer.

Periodically check the engine oil level, see page 72 (CHECKING AND TOPPING UP ENGINE OIL LEVEL).

For engine oil change instructions, see page 65 (SCHEDULED MAINTENANCE CHART) and page 74 (CHANGING ENGINE OIL AND OIL FILTER).

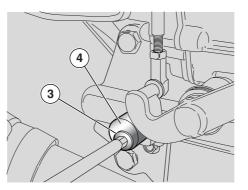
**NOTE** Use high-quality oil, see page 103 (LUBRICANT CHART).



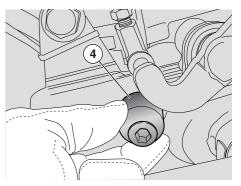
## ADJUSTING THE REAR BRAKE LEVER

If necessary, brake lever can be adjusted as follows:

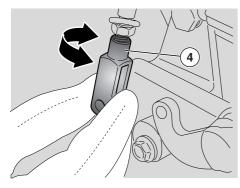
- ◆ Loosen the nut (1).
- Turn the drive rod (2) clockwise until it is released of the brake master cylinder.



- Loosen adjusting eccentric bushing (4) screw (3);
- Turn adjusting eccentric bushing (4) until reaching desired rear brake lever height;



 Tighten adjusting eccentric bushing (4) screw (3);



- Turn the drive rod (2) counter clockwise until engaging it again to the brake master cylinder.
- ◆ Tighten nut (1).

## **A** CAUTION

While adjusting the rod, ensure that there is a play of approximately 1 mm between cylinder rod (2) and the cylinder itself so to avoid that the brake stays engaged thus causing early wear of the braking parts.

## **A**CAUTION

Make sure that the lever (5) has a certain amount of free play, or the brake will remain applied leading to early wear of braking elements. Lever (5) free play: 4 mm (measured at the lever end).

### **A**CAUTION

When finished, make sure that the wheel rotates freely when the brake is released. Check the brake for proper operation. If necessary, contact a **Moto Guzzi** Authorized Dealer.

#### **WARNING**

Ensure that cylinder rod (2) is correctly fitted to the rear brake master cylinder.

#### EXHAUST MUFFLER/EXHAUST SILENCER

### **WARNING**

## Tampering with the noise control system is prohibited.

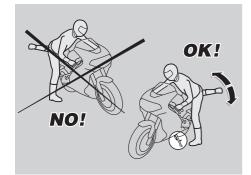
Owners are warned that the law may forbid:

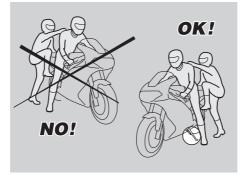
- The removal or rendering inoperative by any person, other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle - for the purpose of noise control - prior to its sale or delivery to the ultimate purchaser or while it is in use;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

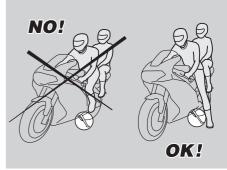
Check the exhaust muffler/silencer and the silencer pipes, making sure that they show no traces of rust or holes and that the exhaust system is operating properly.

If the exhaust system becomes noisy, immediately contact your **Moto Guzzi** Authorized Dealer.

#### **INSTRUCTIONS FOR USE**







## GETTING ON AND OFF THE VEHICLE

Follow the instructions below closely in order to avoid injury to persons and damage to property and to the vehicle, in the event the rider or the passenger should fall off the vehicle and/or the vehicle should fall or overturn.

#### **WARNING**

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

When getting on and off the vehicle, make sure nothing is restricting your movements; you should not be holding any objects in your hands, such as helmet, gloves or glasses.

Always get on and off the vehicle from the left side and with the side stand down.

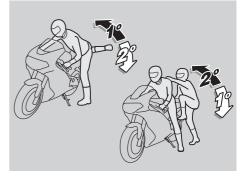
## 

## Do not rest your (and your passenger's) weight on the side stand.

The stand has been designed to support the weight of the vehicle and a minimal load, without the added weight of rider and/or passenger.

The purpose of the side stand is to prevent the vehicle from falling or overturning while rider and passenger get on the vehicle and the stand should not be used to support the weight of rider and passenger.

While getting on and off, the vehicle may become unstable due to its weight, and the vehicle may fall or overturn.



**NOTE** The rider must get on the vehicle first and get off last to ensure he/she has control and balance of the vehicle while the passenger is mounting or dismounting.



When getting on and off the vehicle, the passenger must move carefully to avoid causing imbalance.

**NOTE** The rider must instruct the passenger on how to safely get on and off the vehicle.

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

Never get off or attempt to get off the vehicle by jumping or stretch your leg to put your foot on the ground to dismount. These are wrong procedures that would affect the stability and balance of the vehicle.

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

Swing your right leg over the seat in a controlled movement so as not to hit the tail section or luggage at the rear and avoid resulting imbalance.

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

• Grasp the handlebar correctly and get on the vehicle without resting your weight on the side stand.

**NOTE** If you cannot reach the ground with both feet when sitting astride the vehicle, place your right foot on the ground (if you lose balance, the side stand will prevent a fall on the left side) and be ready to put your left foot to the ground to help keep your balance.

 Place both feet on the ground, straighten the vehicle and make sure to balance it fully.

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

- Ask your passenger to fold out both passenger footpegs.
- Instruct the passenger on how to safely get on the vehicle.
- Pull the side stand fully up using your left foot.

#### GETTING OFF THE VEHICLE

- Select an appropriate location for parking, see page 60 (PARKING).
- Stop the vehicle, see page 60 (STOPPING).

## **WARNING**

Make sure the ground is firm and level and free from obstacles.

 Put your left heel on the side stand lever and push the side stand fully down.

**NOTE** If you cannot reach the ground with both feet when sitting astride the vehicle, place your right foot on the ground (if you lose balance, the side stand will prevent a fall on the left side) and be ready to put your left foot to the ground to help keep your balance.

- Place both feet on the ground and balance the vehicle keeping it upright.
- Instruct the passenger on how to safely get off the vehicle.

## **WARNING**

Risk of falling and overturning.

Make sure that the passenger has dismounted.

Do not rest your weight on the side stand.

- Lean the vehicle to the side until the stand is resting on the ground.
- Keep your hands firmly on the handlebar and get off the vehicle.
- Turn the handlebar fully to the left.
- Fold up the passenger footpegs.

## **A** CAUTION

Make sure that the vehicle is stable.





#### **PRE-RIDE CHECKS**

#### **WARNING**

Check the vehicle before each ride to ensure correct and safe operation, see page 53 (PRE-RIDE CHECKS CHART). Failure to perform these checks may lead to severe personal injury or vehicle damage.

Do not hesitate to contact your **Moto Guzzi** Authorized Dealer if you need clarifications about the operation of vehicle controls or if you suspect or have identified a malfunction. A quick pre-ride check takes just a few minutes and greatly improves your safety.

**NOTE** This vehicle is equipped with an electronic engine control unit capable of detecting abnormal operation in real time and storing faults.

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

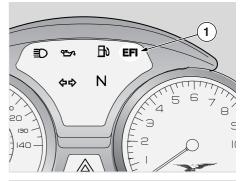
The wording " *EFI* " (1) is also displayed for three seconds after engine is started to indicate that a test for correct fuel injection operation is under way.

#### **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 most cases, the engine will keep running, although giving less performance. Immediately contact a **Moto Guzzi** Authorized Dealer.

## **A** CAUTION

If the throttle sticks open, it may cause a collision with another vehicle, or an upset. If the throttle sticks, kill the engine with the engine stop switch located on the right handlebar. Do not attempt to restart the engine until the throttle has been repaired and works perfectly. Failure to obey this warning can lead to a runaway with seriously injuries or even death.



### **A**CAUTION

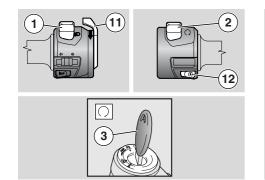
In the event of a throttle sticking emergency, always kill the engine using the engine stop switch located near the throttle grip on the right handlebar. Never use your vehicle if the throttle does not automatically fully return to the idle position when the throttle grip is released. Contact your Local **Moto Guzzi** Dealer for repairs. Failure to heed this warning can lead to a serious accident and subsequent injury or even death.

If any fastener is loose, the rider may lose control of the vehicle and risk an accident.

Both situations may cause serious injuries or even death.

#### **PRE-RIDE CHECKS CHART**

Part	Check	page
Front and rear disk brakes	Check for proper operation, check lever free play, fluid level and check for leaks. Check the pads for wear. If necessary, top up the fluid reservoirs.	
Throttle	Check for smooth operation; throttle should snap fully open and closed at all positions of the steering. Adjust and/or lubricate as required.	79
Engine oil	Check and/or top up as required.	40, 70
Wheels / tires	Check tire surface, inflation pressure. Check for wear or damage. Remove any objects trapped in the tread.	45
Brake levers	Make sure that they work smoothly. Lubricate the joints if necessary (rear brake control).	-
Check clutch operation, free travel of control lever (free play with a cold engine must be less than 0.039 inch (1 mm)). The clutch must not jerk and/or slip when operated.		-
Steering	Steering should rotate smoothly and evenly. There should be no play or looseness.	
Side stand	tide stand Check its operation. No friction during up and down movement, springs must ensure full retraction. Lubricate joints and connections, if necessary.	
Fastening elements	Make sure that the fastening elements are not loose. Adjust or tighten as required.	-
Fuel tank Check fuel level and top up, if necessary. Check the circuit for leaks. Make sure the filler plug is tightened securely.		38
Engine stop switch ( $\bigcirc$ - $\bigotimes$ )	Make sure that it operates correctly.	35
Lights, warning lights, horn, rear brake light switches and electrical devices	rear brake light switches and Check the proper operation of the acoustic and visual devices. Change the bulbs or repair if faulty.	
Transmission fluid	Check. If level needs topping up, contact a Moto Guzzi Authorized Dealer.	75



#### STARTING

## **A** WARNING

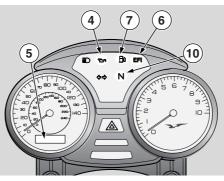
This is a high-performance vehicle and we recommend that you familiarise with it gradually using the greatest care.

Do not store any objects on the inside of the headlight fairing (between the handlebar and the instrument panel) as this could impair handlebar movement or hide the instrument panel from your vision.

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

### **WARNING**

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



Do not start the engine in an enclosed space or poorly ventilated area.

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

**NOTE** With the side stand down, the engine can be started only if the gear is in neutral; if you attempt to engage a gear with the stand down, the engine will stop.

With the side stand up, the engine can be started in neutral.

- ♦ Get on the vehicle and sit in the riding position, see page 50 (GETTING ON AND OFF THE VEHICLE).
- Make sure the stand is fully up.

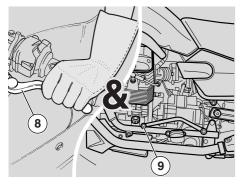
- Set the engine stop switch (2) to position " $\bigcirc$ ".
- ◆ Turn the key (3) and set the ignition switch to position " ∩ ".

#### The following happens:

- The pointers of both instruments go to full scale and then back to zero.
- the engine oil pressure light (red) " \* "
   (4) on the instrument panel comes on and stays on until after the engine is running;
- the multifunction digital display (5) turns on all digits for about two seconds as a test routine and then displays the total distance covered (ODO);
- whenever the ignition switch is turned to position " ()" the warning light " *EFI* " (6) comes on for three seconds;
- you will hear the fuel pump buzzing for about three seconds as it pressurises the fuel system.

## **A** CAUTION

If the low fuel warning light "  $\square$  " (7) on the instrument panel comes on, it means that there are 4 litres of fuel left in the tank. Refuel as soon as possible, see page 39 (FUEL).



- Operate a brake to lock at least one wheel.
- ◆ Pull in the clutch lever (8) completely and shift the gear lever (9) to select neutral [the green light "N" (10) comes on].
- ♦ If you are starting the engine from cold, rotate the choke lever "|\|" (11) downwards.

**NOTE** If the ambient temperature is very cold [below 0 °C (32 °F)], see 56 (STARTING THE ENGINE FROM COLD).

## **A**CAUTION

To avoid excessive current draw from the battery, do not hold down the starter button " ()" for more than fifteen seconds.

If the engine does not start within fifteen seconds, wait ten seconds before operating the starter button " () " again.

Press the starter button "(1)" (12) without accelerating and release it as soon as the engine starts.

## **A**CAUTION

Avoid pressing the starter button " " (12) when the engine is running, or the starter motor may damage.

### **A** WARNING

If the throttle sticks open, it may cause a collision with another vehicle, or an upset. If the throttle sticks, kill the engine with the engine stop switch located on the right handlebar. Do not attempt to restart the engine until the throttle has been repaired and works perfectly. Failure to obey this warning can lead to a runaway with seriously injuries or even death.

### **WARNING**

In the event of a throttle sticking emergency, always kill the engine using the engine stop switch located near the throttle grip on the right handlebar. Never use your vehicle if the throttle does not automatically fully return to the idle position when the throttle grip is released. Contact your Local **Moto Guzzi** Dealer for repairs.

Failure to heed this warning can lead to a serious accident and subsequent injury or even death. If the engine oil pressure light " rightarrow" (4) stays on after the engine is running or comes on during normal engine operation, it means that engine oil pressure in the circuit is low.

# If so, stop the engine immediately and contact a **Moto Guzzi** Authorized Dealer.

 Keep at least one brake operated and do not accelerate until you are ready to move off.

## **A** CAUTION

Never move off abruptly with a cold engine.

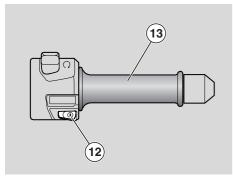
To reduce emissions and fuel consumption, ride slowly until covering several miles to warm the engine up to operating temperature.

◆ Rotate the choke lever "|∖|" (11) upwards after warming up the engine.

## 

If the wording "  $EF_i$  " (6) appears on the instrument panel during normal engine operation, it means that the ECU has detected an anomaly.

In most cases, the engine will keep running, although giving less performance. immediately contact a **Moto Guzzi** Authorized Dealer.



#### STARTING THE ENGINE FROM COLD

If ambient temperature is low (close to or below  $0^{\circ}C/32^{\circ}F$ ), you may have trouble starting the engine at the first attempt.

#### If so:

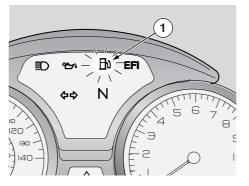
- ♦ Rotate the choke lever "|∖|" (11) downwards.
- ♦ Hold down the starter button " () (12) for at least ten seconds and open the throttle grip (13) slightly.

#### If the engine starts:

- ♦ Release the starter button " ① " (12) and the throttle grip (13).
- ◆ Rotate the choke lever "|ヽ|" (11) upwards.
- If idle speed is erratic, flip the throttle grip (13) moderately several times.

#### If the engine fails to start:

Wait a few seconds and repeat the COLD START PROCEDURE.



#### **TAKE-OFF AND RIDING**

### **WARNING**

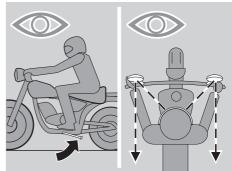
This vehicle is quite powerful and must be used gradually and with the greatest care.

Do not place any items inside the front fairing (between the handlebar and instrument panel), in order to not hinder rotation of the handlebar and visibility of the instrument panel

**NOTE** Before departure, carefully read the chapter "safe riding", see page 5 (SAFE RIDING).

## **A** CAUTION

If the LED fuel reserve " $\square$ " (1) on the instrument panel lights while you are riding, it means that 1.32 US gal (5 %) of fuel is still available.



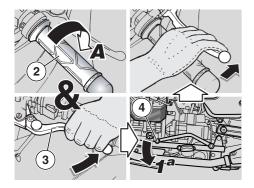
Top up the fuel level as soon as possible, see page 39 (FUEL).

### **WARNING**

When traveling without a passenger, make sure that the passenger footrests are closed.

Keep your hands firmly on the grips and your feet on the footrests while riding.

NEVER RIDE IN ANY OTHER POSITION.

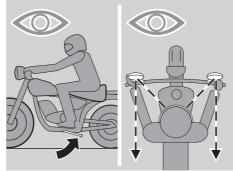


## **WARNING**

If you carry a passenger, instruct him/her not to move around unduly, and to keep his/her body aligned with yours during turns. Failure to do this could upset the stability of the vehicle.

## Before departure, make sure that the stand is completely retracted.

**NOTE** Before riding away, be sure that the rear view mirrors are correctly adjusted.

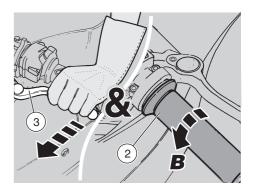


## **A**CAUTION

When the vehicle is new to you, practice looking in the rear view mirrors. Reflecting surfaces are convex, therefore objects seem to be farther away than they actually are. The mirrors provide a wide angle view, and only experience will allow you to correctly determine how far behind you following vehicles are.

To start:

- Start the engine, see page 54 (STARTING).
- Properly adjust the angle of the rearview mirrors.
- ♦ With the throttle handgrip (2) released (Pos. A) and the engine idling, pull the clutch lever (3) completely.
- Engage the first gear by pushing the gearshift lever down (4).
- Release the brake lever (pulled during starting).



#### WARNING

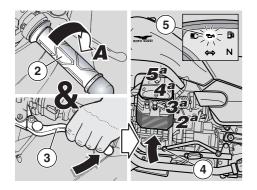
If you release the clutch lever too abruptly when starting out, it may cause the engine to cut out or the vehicle to jerk forward.

Never accelerate abruptly or excessively when releasing the clutch lever, so as to prevent the clutch from slipping (released too slowly) or the front wheel from rearing up (released too quickly).

 Slowly release the clutch lever (3) and simultaneously accelerate, turning the throttle handgrip (2) moderately (**Pos. B**).

The vehicle will begin to move forward.

 For the first miles, ride at moderate speed to allow the engine to warm up.



## **A**CAUTION

## Do not exceed the recommended rpm, see page 59 (RUNNING-IN).

 Increase the speed by gradually turning the throttle handgrip (2) (Pos. B), without exceeding the recommended rpm, see page 59 (RUNNING-IN).

#### To engage the second gear:

## **A**CAUTION

Shift gears fairly quickly but without great force. Develop a "feel" for shifting with your left toe. Never lug the engine, that is, running it at too low an rpm which can damage the vehicle's engine, and causes rough and shuddering acceleration.

- Release the throttle handgrip (2) (Pos. A), operate the clutch lever (3), raise the gearshift lever (4), release the clutch lever (3) and accelerate.
- Repeat the last two operations and switch to a higher gear.

## **A**CAUTION

If the engine oil pressure LED " "" (5) lights while the engine is running normally, it means that the oil pressure engine in the circuit is too low.

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

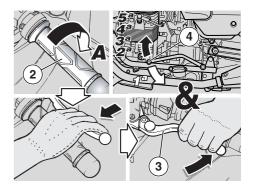
Shifting from a higher to a lower gear, known as "downshifting", should be carried out in the following situations:

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

## **A** CAUTION

Shift down one gear at a time; downshifting by several gears may make you exceed the maximum rpm (redline).

Before and while downshifting, release the throttle and decelerate to avoid redlining.



#### To downshift":

- ◆ Release the throttle handgrip (2) (**Pos. A**).
- If necessary, pull the brake levers moderately and decrease the vehicle speed.
- Pull the clutch lever (3) and lower the gearshift lever (4) to engage the lower gear.
- Release the brake levers if pulled.
- Release the clutch lever and accelerate moderately.

## **A** CAUTION

If the message "EFI" appears on the instrument panel while the engine is running normally, it means that the electronic control unit has detected an error.

In many cases the engine continues to run, with limited performance; contact a **Moto Guzzi** Authorized Dealer immediately.

### **WARNING**

To avoid overheating the clutch, keep the engine running with the vehicle at rest, engaged gears and pulled clutch lever as little as possible.

Do not open and close the throttle repeatedly and continually, as this could cause you to inadvertently lose control of the vehicle. When braking, decelerate and pull both brakes to ensure even deceleration, exerting the appropriate pressure on the braking devices.

Pulling only the front or rear brake considerably reduces the braking force, and runs the risk of locking a wheel and thus losing grip on the road surface.

When stopping uphill, decelerate completely and use only the brakes to keep the vehicle steady.

Using the engine to keep the vehicle steady may cause the clutch to overheat.

Before braking on curves, reduce speed or brake while continuing to ride at the same constant or slightly accelerating moderate speed; avoid slamming on the brakes: this greatly increases your likelihood of skidding.

If you repeatedly use the brakes on downhill stretches, the friction gaskets could overheat, leading to reduced braking effectiveness. Take advantage of engine compression by downshifting using both brakes intermittently. Never ride downhill with the engine shut off.

On wet or slippery roads (snow, ice, mud, etc.), drive at moderate speed, avoid braking abruptly or turning the steering column sharply; this could cause you to lose adherence to the road and fall.

#### **WARNING**

Be attentive to any obstacle or change in the road surface.

Rough roads, train or trolley tracks, manhole covers, indications painted on the road surface, the metal plates of work sites, all become slippery in the rain. Use the utmost caution, avoiding sharp turns and tilting the vehicle as little as possible.

Always use the direction indicators to signal lane or direction changes in time, avoiding abrupt and dangerous movements.

Turn off the indicators immediately after changing lane or direction.

Exercise extremely caution when passing or being passed by other vehicles.

In case of rain, the water splashes caused by large vehicles can significantly reduce visibility; the air wave may cause you to lose control of the vehicle.

#### **RUNNING-IN**

Correct engine running-is essential to ensuring proper performance and durability.

Twisty, hilly roads are ideal for an effective running-in of engine, suspension and brakes.

Vary speed frequently during the runningin period.

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

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

**NOTE** From 1243 mi (2000 km) onward, the engine is ready to provide top performance.

#### Follow these recommendations:

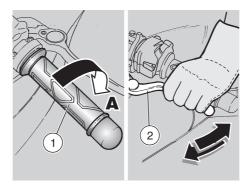
- Do not flip the throttle open abruptly with the engine running at low rpm - either during or after the running-in period.
- Until you have covered the first 62 mi (100 km), use the brakes gently and avoid harsh, prolonged braking. This will help the brake pads bed in properly against the brake disks.
- During the first 625 mi (1000 km) never exceed 5000 rpm.

### **WARNING**

After the first 625 mi (1000 km), have a **Moto Guzzi** Authorized dealer carry out the "Post running-in" checks specified in the periodic maintenance chart, see page 65 (SCHEDULED MAINTENANCE CHART). Failure to perform these checks may lead to injury to yourself or other people and/or vehicle damage.

- ♦ After the first 625 mi (1000 km) and until covering 1243 mi (2000 km), drive more briskly, varying speed and using maximum acceleration for just a few seconds, in order to ensure better coupling of the components; never exceed 6000 rpm (see table).
- ♦ After the first 1243 mi (2000 km) you may run the engine harder, however, without exceeding the maximum rpm allowed (7600 rpm).

Recommended maximum engine rpm		
Distance covered mi (Km)	rpm	
0 - 625 (0 - 1000)	5000	
625 - 1243 (1000 - 2000)	6000	
1243 (over 2000)	7600	



#### STOPPING

## **WARNING**

Whenever possible, avoid stopping or slowing the vehicle abruptly, and slamming the brakes.

## **WARNING**

Failure to comply with these instructions may cause an accident with consequent risk of serious injuries or even death.

Release the throttle grip (1) (Pos.A), apply the brakes gradually and at the same time shift down in order to slow down, see page 56 (TAKE-OFF AND RIDING).

## When you have slowed down, before the vehicle comes to a stop:

 Pull the clutch lever (2) to prevent the engine stalling.

When the vehicle has come to a stop:

- ♦ Select neutral (green warning light "N" on).
- ◆ Release the clutch lever (2).
- If you need to stop only briefly, keep at least one brake applied.

#### PARKING

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

### **WARNING**

Park the vehicle on firm and level ground, to prevent it from falling. Do not lean the vehicle against a wall, or lay it on the ground.Make sure that the vehicle and any of its parts that are still hot do not pose a burn risk for any persons nearby, especially children. Do not leave the vehicle unattended with the engine running or the key in the ignition switch.

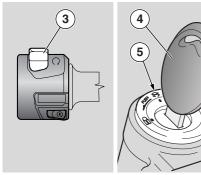
#### **WARNING**

Leaning the vehicle too far over or tipping it over may cause fuel to spill out of the tank.

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

## **A**CAUTION

Do not rest your (and your passenger's) weight on the side stand.



#### To park the vehicle:

- Select a suitable area for parking.
- Stop the vehicle, see page 60 (STOPPING).
- Set the engine stop switch (3) to position
   "⊗".
- ◆ Turn the key (4) and set the ignition switch (5) to position "⊗".

#### **A** WARNING

#### Follow the instructions on how to get on or off the vehicle, see page 50 (GETTING ON AND OFF THE VEHICLE).

- Following the instructions, direct your passenger (if you are carrying one) to dismount and then get off.
- Lock the steering, see page 33 (STEERING LOCK) and remove the key (4).

## **WARNING**

Make sure that the vehicle is stable.

## PUTTING THE VEHICLE ON THE STAND

#### SIDE STAND

To put the vehicle on the side stand while seated astride the vehicle, see page 50 (GETTING ON AND OFF THE VEHICLE).

If you have folded up the stand (say, to wheel the vehicle forward or backward), put the vehicle back on the stand as follows:

### **WARNING**

Make sure the ground is firm and level and free from obstacles.

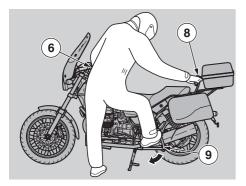
- Select an appropriate location for parking, see page 60 (PARKING).
- ♦ Hold the left grip (6) firmly and place your right hand over the rear end of the vehicle (7).

6

- Push down the side stand (8) with your right foot and extend it completely.
- Lean the vehicle to the side until the stand is resting on the ground.
- Rotate the handlebar fully to the left.

## **WARNING**

Make sure the vehicle is stable when parked. If it falls down, it will certainly be damaged and could injure others as well.



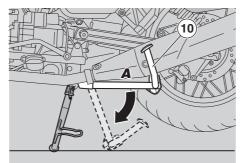
#### **CENTER STAND**

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

Make sure the ground is firm and level and free from obstacles.

- Choose a suitable parking area, see page 60 (PARKING).
- Grasp the left grip (6) and the passenger grab rail (8).

For safety reasons, it is recommended to lower the side stand, in order to prevent the vehicle from falling down or overturning in case of unbalance.



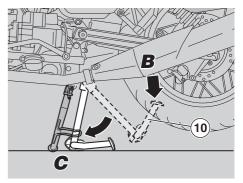
**NOTE** Do not let the side stand touch the ground. Keep the vehicle in vertical position.

- Push down the side stand (9) with your right foot and extend it completely.
- Push onto center stand lever (10) (Pos.
   A) and rest it onto the ground.

Proceed with care.

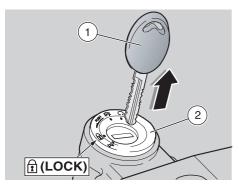
The positioning of the vehicle on the center stand may be difficult, since the vehicle is very heavy. Release the handgrip (1) and grab handle (8) only when the vehicle is steady on the stand.

 Load your weight on the lever (10) (Pos.B) of the center stand and at the same time move your center of gravity towards the rear part of the vehicle (Pos.C).



Make sure that the vehicle is stable.

◆ Let the side stand up.



#### SUGGESTIONS TO PREVENT THEFT

## **WARNING**

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

NEVER leave the key (1) in the ignition switch (2), always use the steering lock

Try to park your vehicle in a safe place, if at all possible, in a garage or other protected place.

Lock your vehicle up using a chain and padlock around the rear wheel. Chain the rear wheel to the swinging arm.

Make sure that all legal requirements: registration, license plates, insurance, etc. are in order.



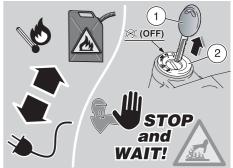
Write down your name, address and telephone number and the vehicle identification number in the space below, to facilitate finding the owner in case your vehicle is recovered after theft.

SURNAME:
NAME:
ADDRESS:

TELEPHONE NO.: .....

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

#### MAINTENANCE



Carefully read p. 2 (FOREWORD) and (INTRODUCTION), p. 3 (SAFETY WARNINGS) and (GENERAL SAFETY RULES), p. 5 (WARNINGS -PRECAUTIONS - GENERAL ADVICE).

#### **WARNING**

#### Risk of fire.

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

Before beginning any maintenance operation or vehicle inspection, stop the engine, remove the key (1) from the ignition switch (2), wait until the engine and the exhaust system have cooled down and if possible lift the vehicle by means of the proper equipment, on firm and flat ground.

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

Be careful to avoid hot parts of the engine and exhaust system. They are hot enough to cause serious burns. Avoid the temptation to hold any part of the vehicle in your mouth. The coatings, platings and components used are not edible and, in some cases, are noxious or even toxic.

#### **A**CAUTION

In general, reassembly is performed in reverse order of the disassembly instructions given here.

For some maintenance operations, especially those in which your hands are likely to come in contact with coolant, engine oil, gasoline, or brake fluid, it is advisable to use thin disposable gloves, such as those made of latex, rubber or nitrile.

The routine maintenance operations described in this manual can usually be performed by the user. However, in some cases, specific tools and technical expertise may be required.

Do not hesitate to contact your Local **Moto Guzzi** Dealer for repairs who has all the latest factory information and tools to properly service your vehicle.

Remember that many service operations, if done improperly, can be very hazardous. If you have any questions about your ability to carry out the operations described here, contact your Local **Moto Guzzi** Dealer.

In all cases, personally carry out the

"preliminary checking operations" after any maintenance, see p. 52 (PRE-RIDE CHECKS).

### **WARNING**

Remember that tightening torques of all fasteners on the wheels, brakes, axles, suspension are extremely important to ensure safety, and must be maintained at the prescribed values.

Regularly check the tightening torques of the fasteners, and always use a torque wrench when installing them.

Failure to adhere to this warning could cause critical fasteners to loosen and be subsequently lost, which could cause a wheel to lock or other handling problems with consequent overturning, and the risk of serious injury or even death.

#### **WARNING**

Fasteners must be neither overtightened or undertightened. If they are overtightened, the threads may be damaged and the fasteners will be destroyed, whereas if they are undertightened, they can vibrate and become lost. Obviously, under these circumstances, a serious accident with resultant serious injury or death could ensue. **NOTE** This vehicle is designed so that any serious malfunction stored in the control unit can be identified in real time.

Whenever the ignition switch is set to " $\bigcirc$ ", the message "*EFI*" appears lit on the instrument panel for approximately three seconds.

## **A** CAUTION

If the message " $EF_i$ " (1) appears while the engine is running normally, it means that the electronic control unit has detected an error.

In many cases the engine continues to run, with limited performance; contact a **Moto Guzzi** Authorized Dealer immediately.

#### SCHEDULED MAINTENANCE CHART

#### OPERATIONS TO BE CARRIED OUT BY THE Moto Guzzi Authorized Dealer (CAN ALSO BE CARRIED OUT BY THE OWNER).

Component	End of running-in [625 mi (1000 km)]	Every 4687 mi (7500 km) or 12 months	Every 9375 mi (15000 km) or 24 months
Spark plugs (*)		every 4687 m	ni/7500 km: ③
Engine oil filter (*)	3	3	
Fork	0		0
Light operation/beam setting		0	
Lighting system	0	0	
Safety switches	U		
Brake fluid		0	
Engine oil	3	3	
Tires	0	0	
Tire pressures (**)	(4)	(4)	
Engine idle rpm	4	(4)	
Battery terminals tightening	0		
Head bolts tightening	4		
Engine oil pressure warning light	at every start-up: ①		
Brake pad wear	(D) before each ride and every 1243 mi (2000 km):		

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

(\*) = If vehicle is used for racing, change every 2343 mi (3750 km).

(\*\*) = Check every two weeks or at the specified intervals.

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

Component	End of running-in [625 mi (1000 km)]	Every 4687 mi (7500 km) or 12 months	Every 9375 mi (15000 km) or 24 months
Gearbox fluid	3	3	
Idle mixture (CO)		0	
Bowden cables and controls	0	0	
Steering bearings and steering play	0	0	
Wheel bearings		0	
Brake disks	0	0	
Air filter		0	3
Vehicle operation	0	0	
Brake systems	0	0	
Brake fluid	every	2 years: ③ or 12427 mi (2000	00 km)
Fork fluid	after the first 4687 m	i (7500 km) and then every 14	000 mi (22500 km):③
Fork oil seals	after the first 18750 m	i (30000 km) and then every 1	4000 mi (22500 km):③
Brake pads	eve	ry 1243 mi/2000 km: ① - if wo	rn:③
Valve clearance adjustment	(4)	(4)	
Wheels / tires		0	
Nut, bolt, screw tightening	U		
Battery terminals tightening	0		
Tightness of nipples/spokes	(4)	4	
Cylinder synchronisation	0	0	
Suspensions and trim	0		0
Final transmission fluid	3	3	
Fuel pipes		0	every 4 years:3
Brake lines		0	every 4 years:3
Clutch wear (*)		0	
$\bigcirc$ = check and clean, adjust, lubricate or change, if ne Halve maintenance intervals if you are riding in rain (*) = If vehicle is used for racing, check every 2343 mi	ny or dusty conditions, on rough road		

(\*) = If vehicle is used for racing, check every 2343 mi (3750 km).

#### **MAINTENANCE RECORD**

Owner Name	
Owner Address	
Owner Telephone Number	
Vehicle Identification Number (V.I.N.) (frame number) see p. 71 (IDENTIFICATION DATA)	
Engine Number see p. 71 (IDENTIFICATION DATA)	
Local <b>Moto Guzzi</b> Dealer Name	
Local Moto Guzzi Dealer Address	
Local Moto Guzzi Dealer Telephone Number	
Warranty Activation Date (from Retail Purchase Warranty Activation Form)	

The following is to help you keep an accurate record of maintenance work.

Information recorded is not considered as proof that maintenance has been carried out.

Keep copies of work orders and/or receipts for parts you purchase.

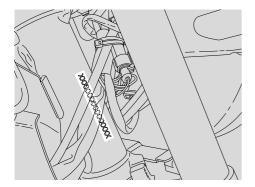
Date	Odometer reading	Maintenance Performed	Dealer Stamp

Date	Odometer reading	Maintenance Performed	Dealer Stamp

Date	Odometer reading	Maintenance Performed	Dealer Stamp

Follow ►

Date	Odometer reading	Maintenance Performed	Dealer Stamp



#### **IDENTIFICATION DATA**

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

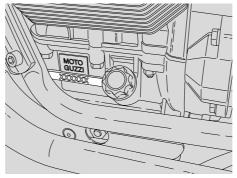
The frame number must be quoted when purchasing spare parts.

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

#### FRAME NUMBER

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

Frame no.



#### **ENGINE NUMBER**

The engine number (2) is stamped on the left side close to the oil level plug/dipstick.

Engine no.

#### JOINTS WITH SCREW CLAMPS

### **A**CAUTION

Remove ONLY the clamps indicated in the maintenance procedures.

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

## **WARNING**

Before removing a clamp, determine whether removal may lead to leakage and, if so, take adequate measures to prevent leakage and protect the components positioned near the joint.

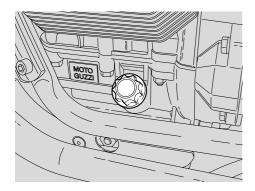
#### SCREW CLAMPS

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

## **A**CAUTION

Check the conditions of the clamp and if necessary replace it with a new one of the same type and dimensions, available on request from **Moto Guzzi** Authorized Dealers.

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



#### CHECKING AND TOPPING UP ENGINE OIL LEVEL

Carefully read page 63 (MAINTENANCE) and page 41 (ENGINE OIL).

**NOTE** Perform maintenance operations at double the prescribed frequency if the vehicle is often used in rainy or very dusty conditions, or on unpaved roads.

Periodically check engine oil level, change the oil every 4687 mi (7500 km), see page 74 (CHANGING ENGINE OIL AND OIL FILTER).

To change the engine oil contact a **Moto Guzzi** Authorized Dealer, see page 65 (SCHEDULED MAINTENANCE CHART).

## **WARNING**

It is critical to the safe operation of your vehicle that the proper lubricants, maintained at the proper levels, be used.

Failure to heed this warning can lead to an engine seizure with subsequent accident, serious injury or death.

To check:

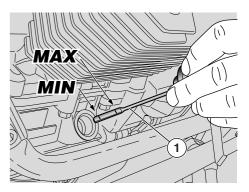
**NOTE** Place the vehicle on firm and flat ground.

## **A** CAUTION

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

If you check level when the engine is cold, oil level may have temporarily dropped below the "MIN" mark.

This is not a problem, provided that the engine oil pressure warning light " ☆ " does not come on, see page 30 (INSTRUMENTS AND INDICATORS TABLE).



**NOTE** Letting the engine idle with the vehicle at standstill is not the correct procedure to warm engine and engine oil up to operating temperature for an oil check. Oil is best checked after a trip or after travelling approximately 10 mi (15 km) out of town (this is sufficient to bring engine oil up to operating temperature).

### **WARNING**

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

Do not start 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.

- ♦ Stop the engine, see page 60 (STOPPING).
- Keep the vehicle in vertical position, the two wheels resting on the ground.

## **WARNING**

Should your vehicle overturn, it will leak gasoline, which is extremely flammable. Flames or sparks may cause a fire, which could destroy not only the vehicle, but also the building in which it is located, and cause serious injuries or even death.

- Undo the filler plug/oil dipstick (1).
- ◆ Check oil level on the dipstick (1).

MAX = maximum level

MIN = minimum level.

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

 Correct level is achieved when the oil is just below the MAX level mark.

# **A**CAUTION

Never exceed the "MAX" mark or let oil level drop below the "MIN" mark, as this may lead to severe engine damage.

If necessary, top up engine oil level as follows:

• Unscrew and remove the filler plug (1).

### **WARNING**

When warmed up, the engine contains hot oil and the engine oil tank (4) is warm; therefore, be especially careful when carrying out the operations described here below, in order to avoid burns.

### **A**CAUTION

Use thick gloves to prevent burns.

# **A** CAUTION

Before unscrewing and removing the filler cap (1), clean it and the surrounding area of the tank with a clean cloth. Prevent any foreign matter from falling into the oil tank, as this could cause serious engine damage.

Do not use any flammable solvents such as alcohol or gasoline when wiping the oil tank. The oil tank is hot enough to cause flammable solvents to ignite.

Use only a natural fiber cloth, i.e. cotton. Man made fabrics such as polyester, etc. could ignite.

## **A**CAUTION

Do not add any additives or other products to the oil.

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

**NOTE** Use high-quality 5W - 40 oil, see page 103 (LUBRICANT CHART).

Top up to correct level, see page 103 (LUBRICANT CHART).

### **WARNING**

Never ride your vehicle with low engine oil, with contaminated oil, or with unapproved oil. Any of these will greatly accelerate wear of your engine, and cause irreparable damage.

# CHANGING ENGINE OIL AND OIL FILTER

## **A**CAUTION

Changing engine oil and engine oil filter can prove difficult; these operations are best left to experienced mechanics.

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

If you wish to perform these operations yourself, follow these instructions.

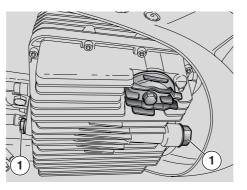
Carefully read page 63 (MAINTENANCE) and page 41 (ENGINE OIL).

**NOTE** Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

Periodically check engine oil level, change the oil every 4687 mi (7500 km), see p.72 (CHECKING AND TOPPING UP ENGINE OIL LEVEL).

#### To change oil:

**NOTE** Warm oil is more fluid and will drain out more easily and completely; ideal temperature is reached after engine has been running for about twenty minutes.

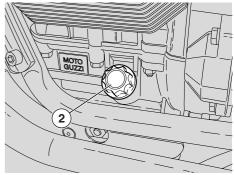


# **A** CAUTION

Oil becomes very hot when engine is warmed up; beware of scalds during the procedure described below.

- Place 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 filler plug (2).
- Drain the oil into the container; allow several minutes for oil to drain out completely.
- Check the sealing washers of the drain plugs (1) and replace them if needed.
- Remove any metal debris attached to the drain plug (1) magnet.
- Screw and tighten the drain plugs (1).

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



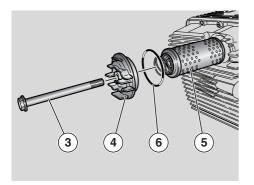
## **A** CAUTION

DO NOT DISPOSE OF OIL IN THE ENVIRONMENT Dispose of engine oil stored in a sealed container - through the nearest waste oil reclamation firm or through the supplier.

#### CHANGING THE ENGINE OIL FILTER

**NOTE** Halve maintenance intervals if you are riding in rainy or dusty conditions, or on rough road surfaces.

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



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

### **A**CAUTION

#### Never reuse a filter.

- Spread a thin layer of oil on the sealing ring (6) of the new engine oil filter.
- Fit the new engine oil filter with the spring facing downwards.
- Refit the cover (4) and tighten the screw (3).

#### FRONT WHEEL

### **A**CAUTION

Disassembling and reassembling the front wheel may prove difficult; these operations are best left to experienced mechanics.

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

### **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 damaged.

### **WARNING**

We advise against disturbing the wheel rim spokes.

#### REAR WHEEL

### 

Disassembling and reassembling the rear wheel may prove difficult; these operations are best left to experienced mechanics.

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

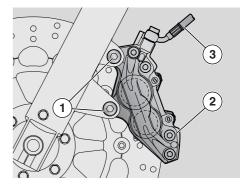
### **WARNING**

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 damaged.

### **WARNING**

We advise against disturbing the wheel rim spokes.



#### FRONT BRAKE CALLIPER

Carefully read page 63 (MAINTENANCE).

### **WARNING**

The disassembly and reassembly of the front brake calipers can be difficult for those unfamiliar with vehicle maintenance. You may wish to have your Local **Moto Guzzi** Dealer carry out these operations. If you wish to perform these operations yourself, carefully read page 63 (MAINTENANCE).

### **WARNING**

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

# **A**CAUTION

When disassembling and reassembling, be careful not to damage the brake hoses, the disks and the pads.

**NOTE** To remove the front brake calliper, the vehicle must be kept upright and safely supported, with the front wheel raised off the ground.

#### DISASSEMBLY

### **A**CAUTION

Make sure that the vehicle is stable.

- Rotate the wheel manually until bringing the space between two wheel spokes before the brake calliper.
- Have someone keep the handlebar steady in a position as for riding, so that the steering is locked.

# Brake calliper screw (1) tightening torque: 50 Nm (5 kgm).

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

## **A**CAUTION

Do not operate the brake lever after removing the calliper, otherwise the pistons may slip out of their seats, leading to brake fluid leakage.

#### Should this happen, contact your **Moto Guzzi** Authorized Dealer, who will rectify the problem.

 Withdraw the brake calliper (2) from the disk, leaving it attached to the hose (3). REASSEMBLY

## **A** CAUTION

Be very careful to avoid damaging the brake pads.

## **WARNING**

Keep your fingers clear, do not allow them to become crushed between the wheel, the caliper or the fork. Do not attempt to align the holes in the caliper using your fingers. Failure to obey this warning can cause serious injury.

 Position the brake calliper (2) to the disk so that the calliper mounting holes match the support holes.

## **WARNING**

On assembly, replace both calliper retaining screws (1) with new ones of the same type.

 Screw and tighten the two calliper retaining screws (1).

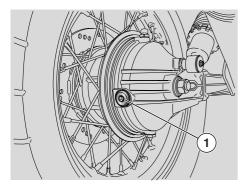
# Brake calliper screw tightening torque: 50 Nm (5 kgm).

◆ Carefully remove the support.

## A WARNING

After servicing the brakes, always make sure they function properly. If the stroke of the lever or pedal is excessive, or if you detect that the braking effectiveness is reduced in any way, have your vehicle serviced by your Local **Moto Guzzi** Dealer. It may be necessary to have your dealer bleed the system, or there may be some other problem with the brake system.

Never ride your vehicle in traffic immediately after servicing the brakes. Always apply the brake pedal or lever several times before riding your vehicle. Then, try your vehicle in a parking lot or other safe area with little traffic to ensure that the brakes are working properly. Failure to observe this warning can lead to a serious accident with subsequent serious injury or death.



CHECKING THE CARDAN SHAFT OIL LEVEL

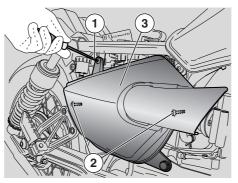
**NOTE** Halve maintenance intervals if you are riding in rainy or dusty conditions, or on rough road surfaces.

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

#### Check as follows:

- Keep the vehicle in vertical position, the two wheels resting on the ground.
- Undo and remove the level plug (1).
- Check that oil level is just below the hole for the level plug (1). Top up if oil is below the specified level.

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



REMOVING THE SIDE BODY PANELS

### **WARNING**

Before carrying out the following operations, let the engine and the exhaust silencer cool down until they reach room temperature.

Failure to observe this warning can lead to serious burns.

- Remove the rider seat, see page 36 (UNLOCKING/LOCKING THE SEAT).
- Unscrew and remove the screw (1).

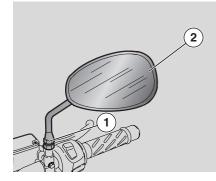
# **A**CAUTION

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

- Carefully disengage pins (2) from relevant retaining rubber blocks.
- ◆ Remove the side body panel (3).

**NOTE** Upon reassembly, make sure that the reference pins (2) are positioned correctly.

Repeat these operations to remove the other side body panel.



# REMOVING THE REARVIEW MIRRORS

The following information applies to both rearview mirrors.

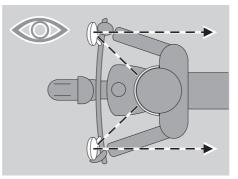
◆ Place the vehicle on the stand.

**NOTE** Collect the left mirror components separately from the right mirror components.

♦ Loosen the flap (1).

# **A**CAUTION

Hold the rearview mirror (2), to prevent it from accidentally falling down.



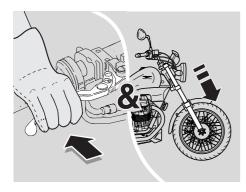
## **A** CAUTION

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

- Remove the rearview mirror (2) pulling it upward.
- ♦ Collect the cover (1).

## **A** CAUTION

On refitting, adjust the rearview mirrors and tighten the nuts to secure them firmly in place.



# INSPECTING THE FRONT AND REAR SUSPENSIONS

Carefully read page 63 (MAINTENANCE).

**NOTE** Have the front fork oil changed by a **Moto Guzzi** Authorized Dealer, who will ensure prompt, accurate service.

**NOTE** Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

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

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

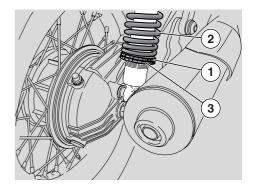
- Keep the front brake lever pulled in and push down on the handlebar repeatedly to compress the front fork. The fork should compress in a smooth movement and must show no traces of oil on the legs.
- Ensure that all components are properly tightened and check the front and rear suspension articulated joints for correct operation.

### **A**CAUTION

In the event of faulty operation or if you need qualified assistance, contact your **Moto Guzzi** Authorized Dealer.

#### FRONT SUSPENSION

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



#### **REAR SUSPENSION**

For setting adjustments, the shock absorber has an adjusting ring nut (1) for spring (2) preload adjustment, and a locking ring nut (3).

**NOTE** It is possible to adjust spring preload in order to customise the vehicle trim according to the conditions of use.

# ADJUSTING THE REAR SHOCK ABSORBER

**NOTE** Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

Check the rear shock absorber every 9375 mi (15000 km) and adjust as required.

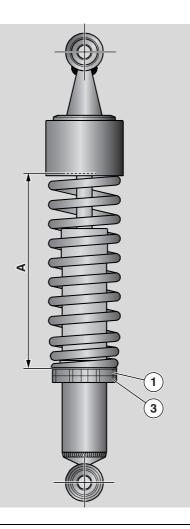
# **A**CAUTION

# Do not force the adjuster (1) in either direction in order to avoid damage.

- Unscrew the locking ring nut (3) by means of the appropriate spanner.
- Using the special pin spanner included in the tool kit, turn the adjusting ring nut (1) to adjust spring (A)preload.
- Screw in to increase spring preload; undo to decrease it.
- When finished, tighten the ring nut (3).

## **A**CAUTION

To ensure vehicle stability, the same setting must be used on both rear shock absorbers. If necessary, contact a **Moto Guzzi** Authorized Dealer.



# CHECKING THE BRAKE PADS FOR WEAR

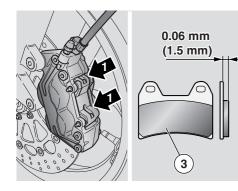
Carefully read page 63 (MAINTENANCE), page 43 (DISK BRAKES) and page 40 (LUBRICANTS).

**NOTE** The following information applies to both braking systems.

**NOTE** Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

Check the brake pads for wear after the first 625 mi (1000 km), every 1250 mi (2000 km) afterwards and before each ride.

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

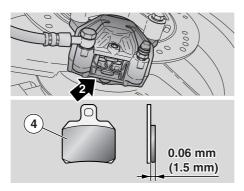


# **WARNING**

Check the brake pads for wear, possibly before each ride.

Outlined below is a quick brake pad inspection procedure:

- Place the vehicle on the stand, see page 61 (PUTTING THE VEHICLE ON THE STAND).
- Visually inspect the area between brake disk and brake pads proceeding as follows:
- look from above at the rear to check the front brake calliper (1);
- from below at the rear to check the rear brake calliper (2).



# A WARNING

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

When the lining material of any one of the brake pads [whether front (3) or rear (4)] is worn down to nearly **0.06 inch (1.5 mm)**, or when one of the wear indicators is worn away, have both brake pads changed.

### **WARNING**

To have them replaced, contact your **Moto Guzzi** Authorized Dealer.

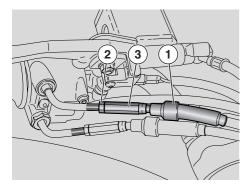
# ADJUSTING THE THROTTLE CONTROL

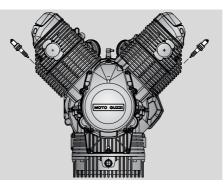
### WARNING

If the throttle sticks open, it may cause a collision with another vehicle, or an upset. If the throttle sticks, kill the engine with the engine stop switch located on the right handlebar. Do not attempt to restart the engine until the throttle has been repaired and works perfectly. Failure to obey this warning can lead to a runaway with seriously injuries or even death. If any fastener in the throttle system becomes loose, likewise you will lose control of vour vehicle. Either situation can lead to an upset or collision with subsequent serious injury or death. In the event of a throttle sticking emergency, always kill the engine using the engine stop switch located near the throttle grip on the right handlebar. Never use your vehicle if the throttle does not automatically fully return to the idle position when the throttle grip is released. Contact your Local Moto Guzzi Dealer for repairs. Failure to heed this warning can lead to a serious accident and subsequent injury or even death. Carefully read page 63 (MAINTENANCE).

**NOTE** Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

Have the throttle control cables checked by a **Moto Guzzi** Authorized Dealer after the first 625 mi (1000 km) and then every 4687 mi (7500 km). There should be **0.08 - 0.12 inch (2-3 mm)** free play in the throttle twistgrip (measured at twistgrip edge).





#### If not so:

- ◆ Place the vehicle on the stand, see page 61 (PUTTING THE VEHICLE ON THE STAND).
- Withdraw the protection (1).
- Loosen the lock nut (2).
- Rotate the adjuster (3) until achieving the specified free play.
- When finished, tighten the lock nut (2) and check free play again.
- Refit the protection (1).

## **WARNING**

Exhaust gases contain carbon monoxide, which is extremely poisonous if inhaled. Do not start 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.

# **WARNING**

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

#### SPARK PLUGS

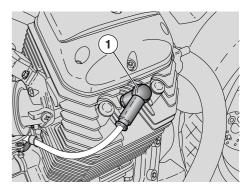
Carefully read page 63 (MAINTENANCE).

**NOTE** Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used for racing.

### **A** CAUTION

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

Change the spark plugs every 6214 mi (10000 km). Periodically remove the spark plugs and clean them carefully, removing any carbon deposits; change them if necessary.



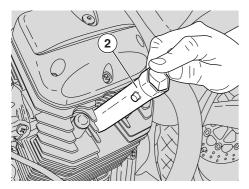
## **A**CAUTION

Always change the spark plugs as a set, even if only one needs replacing.

## **WARNING**

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

The following procedures apply to both cylinders.



To remove, proceed as follows:

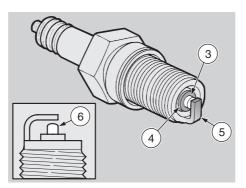
### **A**CAUTION

Never disconnect the spark plug cap with the engine running, since you may get an electric shock from the ignition system. Do not reverse the position of the two spark plug caps. Do not remove the two spark plug caps at the same time.

### **WARNING**

During this operation, always wear goggles that provide your eyes with 360° protection. Be very careful when using compressed air jets, as they can cause serious personal injury if directed towards your body.

- ◆ Remove the spark plug cap (1).
- Remove any trace of dirt from the spark plug base.
- Fit the special socket included in the tool kit to the spark plug.
- Insert the spanner (2) with its handle included in the tool kit - into the hexagonal flat of the spark plug socket.



 Unscrew the spark plug and extract it from its seat, making sure no dust or dirt fall into the cylinder.

Inspection and cleaning:

# **A** CAUTION

This motorcycle uses spark plugs with platinum electrodes. Do not clean with wire brushes and/or abrasive compounds. Clean with compressed air only.

Key:

- center electrode (3),
- insulator (4);
- side electrode (5).
- Check electrodes and insulator for carbon deposits or traces of corrosion and blow them with compressed air if needed.

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

0.026 - 0.028 inch (0.6 - 0.7 mm) 8

# **A** CAUTION

Make sure the new spark plug has the correct thread pitch and reach. A thread reach which is too short will let carbon build up in the spark plug hole thread, leading to engine damage when the right spark plug is refitted subsequently. Use recommended spark plugs only, see page 100 (TECHNICAL DATA). A spark plug of the wrong rating may shorten engine life and cause loss of performance.

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

## **A** CAUTION

Never attempt to adjust electrode gap.

Electrode gap should be 0.026 - 0.028 inch (0.6 - 0.7 mm).

If not so, change the spark plug.

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

#### Installation:

- Position the washer (8) and screw in the spark plug by hand in order not to damage the thread.
- Tighten each spark plug by one half of a turn to compress the washer using the socket included in the tool kit.

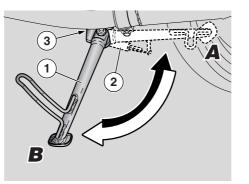
Spark plug tightening torque: 20 Nm (2 kgm).

### **A**CAUTION

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

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

**NOTE** Repeat the above procedure for the spark plug of the other cylinder.



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

#### Carefully read page 63 (MAINTENANCE) and page 89 (CHECKING THE SWITCHES).

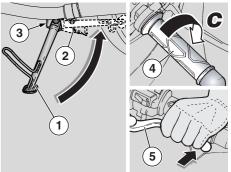
The side stand (1) has two positions:

- standard or folded up (at rest) (Pos.A);
- down (supporting the bike) (**Pos.B**).

Operation of the stand is the rider's responsibility.

It is important that no components interfere with side stand (1) rotation.

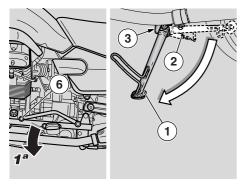
The springs (2) keep the stand in the desired position (extended or retracted).



#### Check for the following:

- The springs (2) must not be damaged, worn, rusty or weakened.
- Make sure that the stand has no play in either position (extended and retracted).
- Lower the stand to make sure the springs let it extend completely.
- Pull the stand midway up and let go to make sure the springs let it retract completely.
- The side stand must rotate freely, if necessary grease the joint, see page 103 (LUBRICANT CHART).

The side stand (1) is equipped with a safety switch (3) that inhibits ignition or stops the engine whenever a gear is engaged while the side stand (1) is down.



# To determine proper operation of the safety switch (3), proceed as follows:

- ♦ Sit astride the vehicle.
- Fold up the side stand (1).

# **WARNING**

Exhaust gases contain carbon monoxide, which is extremely poisonous if inhaled. Do not start the engine in closed or badlyventilated rooms. Failure to observe this warning may cause loss of consciousness or even lead to death by asphyxia.

- ◆ Start the engine, see page 54 (STARTING).
- Release the throttle twistgrip (4) (Pos.C), let engine idle and then pull in the clutch lever (5).
- Push down the gear change lever (6) to engage the first gear.
- Lower the side stand (1) to operate the safety switch (3).

#### The following happens:

- the engine must stop;

If the engine keeps running, contact a **Moto Guzzi** Authorized Dealer.

#### BATTERY

# Carefully read page 63 (MAINTENANCE).

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

### **WARNING**

Risk of fire. Keep fuel and other flammable substances away from electric components.

Battery fluid is toxic and corrosive; it contains sulfuric 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 and must be kept away from flames and sources of ignition or heat; do not smoke near the battery. Provide proper ventilation while the battery is under charging and do not inhale the gases produced by the battery during the charging process.

KEEP AWAY FROM CHILDREN.

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

### **WARNING**

Never invert the battery cables.

Ensure that the ignition switch is in position "<sup>©</sup>," 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 sulphation, see page 87 (CHARGING THE BATTERY).

 Remove the battery, see page 86 (REMOVING THE BATTERY) and store it in a cool, dry place.

To avoid degradation in the wintertime or while the vehicle is stored away, check battery charge at regular intervals (monthly).

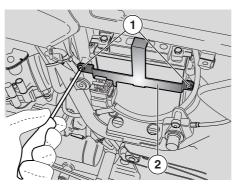
 Recharge the battery fully at a normal charge rate, see page 87 (CHARGING THE BATTERY).

If you are leaving the battery installed to the vehicle, disconnect the cables from the terminals.

# CHECKING AND CLEANING THE TERMINALS

Carefully read page 85 (BATTERY).

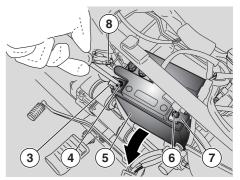
- Remove the rider seat, see page 36 (UNLOCKING/LOCKING THE SEAT).
- Remove the left side body panel, see page 77 (REMOVING THE SIDE BODY PANELS).
- Unscrew the two retaining screws (1) and remove bracket (2).



- Make sure that the cable terminals and the battery terminals are:
- in good condition (and not corroded or covered with deposits);
- covered with neutral grease or Vaseline.

#### If necessary:

- ♦ Remove the battery, see page 86 (REMOVING THE BATTERY).
- Clean off cable and battery terminals with a wire brush to remove all traces of corrosion.
- ♦ Install the battery, see page 88 (INSTALLING THE BATTERY).



#### **REMOVING THE BATTERY**

### **A**CAUTION

When the battery is removed, the digital clock is automatically reset. For setting instructions, see page 31 (MULTIFUNCTION DIGITAL DISPLAY).

Carefully read page 85 (BATTERY).

- Make sure that the ignition switch is in position "⊗".
- Remove the rider seat, see page 36 (UNLOCKING/LOCKING THE SEAT).
- Remove the left side body panel, see page 77 (REMOVING THE SIDE BODY PANELS).
- Unscrew the two retaining screws (1) and remove bracket (2).
- ◆ Release and remove the negative (-) terminal screw (4).

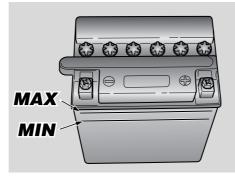
- ◆ Move aside the negative cable (3).
- ◆ Release and remove the positive (+) terminal screw (6).
- ◆ Move aside the positive cable (7).
- Disconnect the battery breather hose (8)
- Grasp the battery (5) firmly and lift it out of its compartment.

# **WARNING**

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

- Place the battery on a flat surface, in a cool and dry place.
- Fit the bracket (2) and refit the screws (1).
- Refit the left side body panel, see page 77 (REMOVING THE SIDE BODY PANELS).
- ♦ Refit the rider seat, see page 36 (UNLOCKING/LOCKING THE SEAT).

**NOTE** For battery installation, see page 88 (INSTALLING THE BATTERY).



#### CHECKING 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 page 86 (REMOVING THE BATTERY).

### **WARNING**

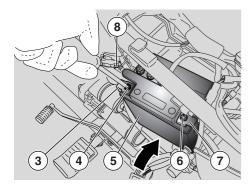
The battery gives off noxious and explosive gases; keep it away from flames, sparks, cigarettes and any other source of heat.

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

- Remove the battery caps.
- Check battery fluid level, see at the side (CHECKING BATTERY FLUID LEVEL).
- 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 and top up with distilled water if needed.
- ♦ Refit the caps.

## **WARNING**

When you disconnect the battery charger, allow 5-10 minutes before refitting the battery, as it will keep producing gas for a few minutes.



#### **INSTALLING THE BATTERY**

#### Carefully read page 85 (BATTERY).

- ◆ Ensure the ignition switch is in the "⊗" position.
- Remove the rider seat, see page 36 (UNLOCKING/LOCKING THE SEAT).
- Remove the left side body panel, see page 77 (REMOVING THE SIDE BODY PANELS).
- Lift the battery retaining bracket (2) taking care not to scratch the tank (it might be a good idea to protect the tank with soft cloth).

**NOTE** Place the battery (5) with the terminals pointing to the left side of the vehicle.

- ◆ Partially install the battery (5) into its seat.
- Connect the battery breather hose.

#### **WARNING**

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

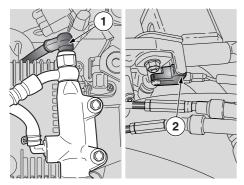
- ◆ Connect the positive (+) cable by tightening the terminal screw (6).
- ◆ Connect the negative (-) cable by tightening the terminal screw (4).
- Coat the terminals of cables and battery with neutral grease or Vaseline.
- Install the battery in the correct position, fully into its seat.

- Refit the bracket (2) and secure it with the screws (1).
- ♦ Refit the left side body panel, see page 77 (REMOVING THE SIDE BODY PANELS).

### **A**CAUTION

Removing the battery will reset the digital clock. For setting instructions, see page 31 (MULTIFUNCTION DIGITAL DISPLAY).

♦ Refit the rider seat, see page 36 (UNLOCKING/LOCKING THE SEAT).

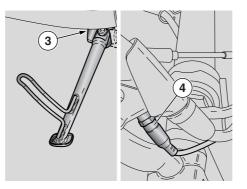


#### **CHECKING THE SWITCHES**

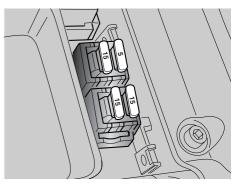
Carefully read page 63 (MAINTENANCE).

# The vehicle is equipped with four switches:

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



- Clean the switch if caked with dirt or mud. The pin must move freely and return automatically to its initial position.
- Make sure that the cables are connected correctly.



#### **CHANGING THE FUSES**

Carefully read page 63 (MAINTENANCE).

### **A**CAUTION

Do not repair faulty fuses.

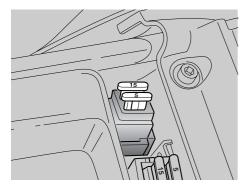
Never use a fuse of a rating other than specified.

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

**NOTE** If a fuse blows repeatedly, there might be a short circuit or an overload in the electric system.

In this case it is advisable to contact a **Moto Guzzi** Authorized Dealer.

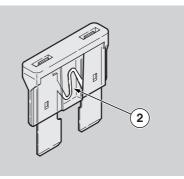
Checking the fuses is recommended whenever an electric component fails to operate or is malfunctioning, or when the engine does not start.



Check the auxiliary fuses first and then the main fuses.

#### Check as follows:

- ♦ Remove the rider seat, see page 36 (UNLOCKING/LOCKING THE SEAT).
- Remove the side body panels, see page 77 (REMOVING THE SIDE BODY PANELS).
- Open the cover of the auxiliary fuse box (1).
- Extract and check the fuses one by one a divided link bar (2) means that the fuse is blown.
- Before replacing a fuse, identify the cause of the failure, if possible.
- Replace the blown fuse with a new one with equal current rating.

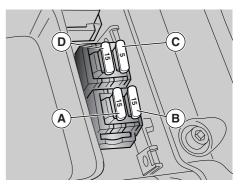


**NOTE** When you use one of the spare fuses, remember to add a new spare fuse into the proper seat.

Repeat the above operations for the main fuses.

**NOTE** Removing the 30A fuses resets the digital clock.

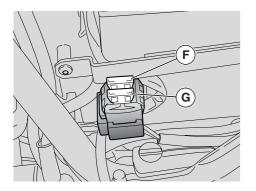
For setting instructions, see page 31 (MULTIFUNCTION DIGITAL DISPLAY).



#### ARRANGEMENT OF AUXILIARY FUSES

- a) From key to safety lockout system/starting (15 A).
- b) From key to lights, stop light, horn, and turn indicators (15 A).
- c) From battery to fuel injection permanent power supply (3A).
- d) From battery to fuel injection (15A).
- e) Spare

**NOTE** There are three spare fuses (3, 15, 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** There is one spare fuse.

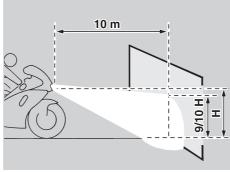
### **A**CAUTION

Extract the fuses one by one, in such a way as to avoid replacing them incorrectly during reassembly.

### A WARNING

If you replace the fuse and it blows again immediately, there is a serious problem with the electrical system of your vehicle. Do not attempt to continue using your vehicle. Take it to your Local **Moto Guzzi** Dealer for repair and service.

**NOTE** If you use the spare fuse, replace it as soon as convenient.



**BEAM SETTING** 

#### **WARNING**

Do not use the vehicle if the lights are not functioning properly.

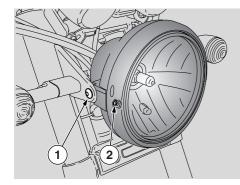
Do not use the vehicle if the headlight is adjusted incorrectly. This could temporarily blind oncoming cars, and also reduce the rider's ability to see any obstacle along the road while riding at night.

It is always advisable to reduce speed when riding at night, so as to be able to avoid obstacles in time and to adapt to the poorer visibility that inevitably results from darkness. Failure to observe this warning can cause you to collide with another object, with consequent risk of serious injury or even death. **NOTE** The procedure described here is in compliance with the Italian standard that establishes the maximum height of the headlight beam.

For vehicles used in other countries, you must conform with local regulations.

To quickly make sure the beam is correctly adjusted, place the vehicle on flat ground, **32.81 ft (10 m)** away from a wall.

Turn on the low beam, sit on the vehicle and make sure that the beam projected on the wall is slightly below the horizontal line of the headlight (about 9/10th of the total height).



#### **BEAM VERTICAL ADJUSTMENT**

- ◆ Place the vehicle upright.
- Slightly loosen screws (1) fixing the headlight and manually adjust headlight beam to the desired position.
- ◆ Once finished, tighten screws (1).

## **A**CAUTION

On reassembly, tighten the screws (1) moderately to avoid damage to the plastic material.

When finished:

### **WARNING**

Check for correct beam vertical setting.

#### **BEAM HORIZONTAL ADJUSTMENT**

### **WARNING**

Do not use the vehicle if the lights are not functioning properly.

Do not use the vehicle if the headlight is adjusted incorrectly. This could temporarily blind oncoming cars, and also reduce the rider's ability to see any obstacle along the road while riding at night.

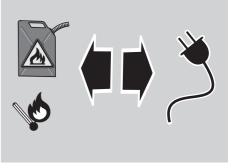
It is always advisable to reduce speed when riding at night, so as to be able to avoid obstacles in time and to adapt to the poorer visibility that inevitably results from darkness. Failure to observe this warning can cause you to collide with another object, with consequent risk of serious injury or even death.

- ◆ Place the vehicle on the stand, see page 61 (PUTTING THE VEHICLE ON THE STAND).
- Turn the screw (2) using a screwdriver until obtaining the desired beam setting.

#### When finished:

## **WARNING**

Make sure that the horizontal adjustment of the headlight beam is correct. Different jurisdictions have different requirements for horizontal headlight aiming. Make sure that you conform with the rules of the jurisdictions in which your vehicle is being used.



#### BULBS

Carefully read p. 63 (MAINTENANCE).

## **WARNING**

Do not use the vehicle if the lights are not functioning properly. Do not use the vehicle if the headlight is adjusted incorrectly. This could temporarily blind oncoming cars, and also reduce the rider's ability to see any obstacle along the road while riding at night. It is always advisable to reduce speed when riding at night, so as to be able to avoid obstacles in time and to adapt to the poorer visibility that inevitably results from darkness. Failure to observe this warning can cause you to collide with another object, with consequent risk of serious injury or even death.

# **WARNING**

Risk of fire. Fuel and other flammable substances must not be placed near electrical components.



# **A** CAUTION

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

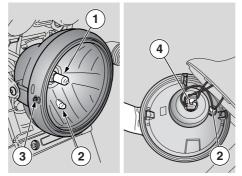
Wear clean gloves or use a clean, dry cloth to handle the new bulb.

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

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

#### DO NOT PULL ON THE WIRES.

**NOTE** Before changing a bulb, check the fuses, see page 89 (CHANGING THE FUSES).



#### CHANGING THE HEADLIGHT BULBS

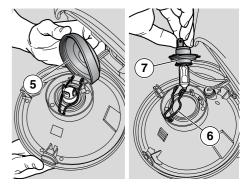
Carefully read page 92 (BULBS).

#### The headlight accommodates:

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

#### To change the bulb:

- Place the vehicle on the stand, see page 61 (PUTTING THE VEHICLE ON THE STAND).
- To remove the complete reflector from headlight body, loosen the screw (3).

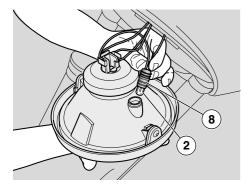


#### LOW/HIGH BEAM BULB

- Do not pull on the wires to extract the bulb connector.
- Grasp the bulb connector (4) and pull to disconnect it from the bulb.
- Slip off the dust cover (5) with your fingers.
- Unhook the two ends of the retaining spring (6) positioned on the bulb holder (7).
- Extract the bulb from its seat.

**NOTE** Insert the bulb into the bulb holder, making sure to match the locating slots.

◆ Fit a new bulb of equal rating.



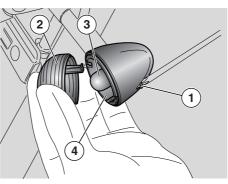
#### PARKING LIGHT BULB

# **A**CAUTION

# Do not pull on the wires to remove the bulb holder.

- Grasp the parking light (8) bulb holder and pull to extract.
- Remove the bulb (2) and fit a new bulb of equal rating.

**NOTE** Make sure the bulb is correctly located in the bulb holder.



# CHANGING THE FRONT AND REAR TURN INDICATOR BULBS

#### Carefully read page 92 (BULBS).

- ◆ Place the vehicle on the stand, see page 61 (PUTTING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the screw (1).

## **A** CAUTION

While removing the lens, proceed carefully in order not to break the locating peg.

♦ Remove the lens (2).

### **A** CAUTION

Make sure that the lens locates correctly into its seat on refitting. Tighten the screw (1) moderately and carefully, to avoid damaging the lens.



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

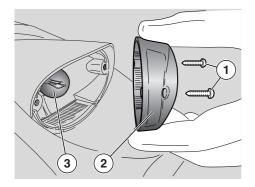
### **A**CAUTION

Insert the bulb into the bulb holder, so that the two pins slide into the slots in the holder.

• Fit a new bulb of equal rating.

## **A**CAUTION

If the bulb holder (4) comes off, refit it into its seat so that the chamfered opening of the holder matches the hole for the screw.



#### CHANGING THE TAIL LIGHT BULB

Carefully read page page 92 (BULBS).

### **WARNING**

Do not ride your vehicle if the taillight and brake light are not working properly. The brake light is particularly important to prevent other vehicles from rearending you. Obviously, failure to comply with these instructions could lead to a serious accident with subsequent injuries or even death.Before changing a bulb, check the STOP light switches for proper operation, see page 89 (CHECKING THE SWITCHES).

- ◆ Place the vehicle on the stand, see page 61 (PUTTING THE VEHICLE ON THE STAND).
- Unscrew and remove the two screws (1).



- Remove the lens (2).
- Press the bulb (3) slightly and rotate it anticlockwise.
- Extract the bulb (3) from its seat.

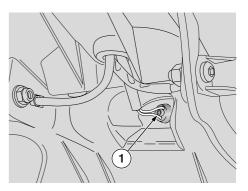
### **A** CAUTION

Insert the bulb into the bulb holder, so that the two pins slide into the slots in the holder.

Fit a new bulb of equal rating.

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

Tighten the screw (2) moderately and carefully, to avoid damaging the lens.



# REPLACING THE NUMBER PLATE BULB

#### Carefully read page page 92 (BULBS).

 Place the vehicle on the stand, see page 61 (PUTTING THE VEHICLE ON THE STAND).

### **A**CAUTION

Do not pull on the wires to remove the bulb holder.

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

**NOTE** Make sure the bulb is correctly located in the bulb holder.

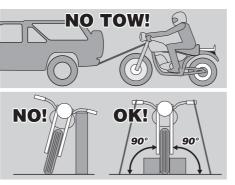
#### TRANSPORT



### **A** WARNING

Never drain the fuel tank, either partially or completely. This may cause damage to the inner components of the fuel tank, or to other parts of the fuel system.

Always ensure that the fuel filler cap is correctly closed.



# **WARNING**

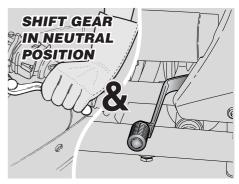
Never attempt to tow your vehicle with another vehicle.

### **WARNING**

While your vehicle is being transported, it must be kept in a vertical position, firmly tied down, and with the wheels blocked.

Transport your vehicle in neutral gear only.

Failure to heed this warning could cause serious damage to the transmission due to vibration of the transport truck.



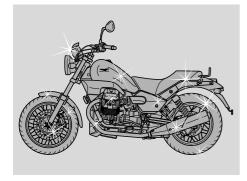
**DRAINING THE FUEL TANK** 

#### **A**CAUTION

Never drain the fuel tank, either partially or completely. This may cause damage to the inner components of the fuel tank, or to other parts of the fuel system.

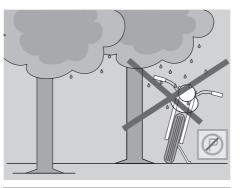
Always ensure that the fuel filler cap is correctly closed.

#### CLEANING



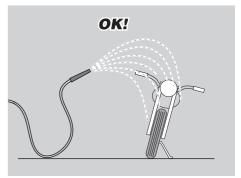
Clean the vehicle frequently if it is used in particular areas or conditions, such as:

- Polluted areas (town and industrial areas).
- High salinity and humidity (sea areas, hot and damp climates).
- Seasonal/environmental conditions (road salt and chemicals spread on the roads in the wintertime).
- Make sure to clean off any industrial residue and pollutants, tar, dead insects, bird droppings, etc. from the body panels and fairings.
- Avoid parking the vehicle under trees. Resins, fruits or leaves falling from the trees may contain aggressive chemical substances that may damage the paintwork.



#### **WARNING**

After the vehicle has been washed, braking efficiency could be temporarily impaired because the friction surfaces of the braking systems may still be wet. Ride carefully as braking distance will be longer. Operate the brakes repeatedly to restore normal operation. Perform the recommended pre-ride checks, see page 53 (PRE-RIDE CHECKS CHART).



To remove dirt and mud from painted surfaces, use a low-pressure water jet on dirty areas, remove mud and dirt with a soft car body sponge soaked with abundant water and shampoo (2 - 4% parts of shampoo).

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

Clean the outer parts of the engine using a degreaser, small brushes and cloth.



### **A**CAUTION

Before washing the vehicle

- 1) Empty the front and under-seat compartments. Remove the matting inside the under-seat compartment.
- 2) Make sure the compartments are properly closed.

## **A** CAUTION

Use only mild detergent to wash the vehicle, rinse with water, but do not use a water cleaner see page 97 (CLEANING).

### **A** CAUTION

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

## **A** CAUTION

Polish with silicone wax only after carefully washing the vehicle.

Do not use polishing pastes on matt paints.

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

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

# **A** CAUTION

Do not aim high-pressure water or air jets or steam jets at 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.

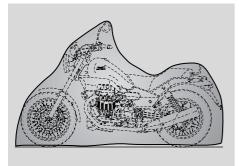
Do not use alcohol, petrol or solvents to clean rubber and plastic parts; use water and mild soap only.

Do not use solvents or oil-derived fluids (such as acetone, trichloroethylene, turpentine, fuel, thinners) to clean the seat. You can use detergents with surface-active agents up to 5% (mild soap, degreasing agents or alcohol).

Carefully dry the seat after cleaning.

#### **WARNING**

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



#### LONG PERIODS OF INACTIVITY

### **A**CAUTION

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

**NOTE** Removing the 30A fuses resets the digital clock. For setting instructions, see page 31 (MULTIFUNCTION DIGITAL DISPLAY).

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

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

#### Proceed as follows:

- Remove the battery, see page 86 (LONG INACTIVITY OF THE BATTERY) and page 86 (REMOVING THE BATTERY).
- Wash and dry the vehicle, see page 97 (CLEANING).
- Polish painted surfaces with wax.
- ◆ Inflate the tires, see page 46 (TIRES).
- Store the vehicle in an unheated, dry place, away from sunlight, where temperature is reasonably steady.
- Wrap and tie a plastic bag around the exhaust pipe openings to keep moisture out.

**NOTE** Place the vehicle on stable supports to keep both wheels off the ground.

 Cover the vehicle avoiding plastic or waterproof covers.

#### AFTER STORAGE

**NOTE** Remove the plastic bags from the exhaust silencers.

- Remove the cover and clean the vehicle, see page 97 (CLEANING).
- Check battery charge, see page 87 (CHARGING THE BATTERY) and install it, see page 88 (INSTALLING THE BATTERY).
- ◆ Fill the fuel tank, see page 39 (FUEL).
- Perform the recommended pre-ride checks, see page 53 (PRE-RIDE CHECKS CHART).

### **WARNING**

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

### **TECHNICAL DATA**

DIMENSIONS	Max. Length	85.28 inch (2166 mm)
	Max. Width	31.7 inch (805 mm)
	Max. height (handgrips)	42.05 inch (1068 mm)
	Seat height	30.31 inch (770 mm)
	Wheelbase	57.76 inch (1467 mm)
	Minimum ground clearance	8.23 inch (209 mm)
	Dry weight	405.72 lb (184 kg)
ENGINE	Туре	90° traverse V-type, twin-cylinder, 4-stroke
	Number of cylinders	2
	Displacement	45.38 cu in (744 cm <sup>3</sup> )
	Bore / stroke	3.15 x 2.91 inc (80x74 mm)
	Compression ratio	9.6: 1
	Starting	electric
	N°Engine idling rpm	1100 ± 100 rpm
	Clutch	single disk, dry, with cush drive
	Lubrication system	pressure-fed system, adjustment through valves and lobe pump
	Air filter	cartridge, dry
	Cooling	air
GEARBOX	Туре	mechanical, 5 gears with foot control on the left side of the engine
CAPACITIES	Fuel (reserve included)	3.70 US gal (14 ℓ)
	Fuel reserve	1.06 US gal (4 ℓ)
	Engine oil	oil and oil filter change 1780 cc
	Transmission fluid	0.26 US gal (1 ℓ)
	Fork fluid	$24.4 \pm 0.15$ cu in (400 $\pm 2.5$ cm <sup>3</sup> )(per leg)
	Seats	2
	Max vehicle load	396.90 lb (180 kg) (rider + passenger + luggage)

TRANSMISSION RATIOS	Ratio 1st 2nd 3rd 4th 5th	Primary gears 16/21 = 1: 1.3125	Final 11/26 = 1: 2.3636 14/23 = 1: 1.6429 18/23 = 1: 1.2778 18/19 = 1: 1.0556 22/25 = 1: 0.9	Final ratio cardan 8/33 = 1: 4.825
FUEL SYSTEM	Type Throttle		electronic injection (Weber - Marelli) Ø 1.42 inch (Ø 36 mm)	
FUEL SUPPLY			Premium-grade unleaded petrol, minimum octane rating 95 (ROM) and 85 (MON).	
FRAME	Type Steering head angle Trail		Tube frame with two cradles the 27.5° 5.43 inch (138 mm)	at can be disassembled, high-strength steel
SUSPENSIONS	Front Stroke Rear Wheel travel		hydraulic fork Marzocchi Ø 1.54 5.12 inch (130 mm) die-cast light-alloy swinging arr adjustment 3.93 inch (100 mm)	8 inch (Ø 40 mm) n, two shock absorbers with spring preload
BRAKES	Front Rear		( )	12.60 inch (Ø 320 mm), callipers with four nch (Ø 260 mm)
WHEEL RIMS	Type Front Rear		spoke-type for tube tires 2.5" x 18" 3.50" x 16"	
TIRES	Front Rear		Type: METZLER ME 33 Size: 100/90 V18 56V Inflation pressure: 220 kpa Inflation pressure with passeng Type: METZLER ME 55 Size: 130/90 -16 67V Inflation proscure: 220 kpa	jer: + 30 kpa
			Inflation pressure: 220 kpa Inflation pressure with passeng	jer: + 30 kpa

SPARK PLUGS	Standard Spark plug electrode gap Resistor	NGK BR8ES 0.024 - 0.028 inch (0.6 – 0.7 mm) 5 kΩ
ELECTRIC SYSTEM	Battery Main fuses Auxiliary fuses Generator (with permanent magnet)	12 V – 14 Amp/h 30 A 3 A – 10 A – 15 A 12 V – 330 W
BULBS	Low beam/high beam (halogen) Front parking light Turn indicator light Stop/rear parking lights Instrument panel lighting EFI Number plate light	12 V – 55/60 W H4 12 V – 5 W 12 V – 10 W (RY 10 W orange lamp) 12 V – 5/21 W LED LED 12 V – 5 W
WARNING LIGHTS	Neutral Turn indicators Fuel reserve High beam Engine oil pressure	LED LED LED LED LED

#### LUBRICANT CHART

(Recommended) engine oil (1800 cc): 🖼 Agip RACING 4T 10 W 60.

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 (170 cc): 🐜 Agip TRUCK GEAR 85 W 140.

(Recommended) gearbox oil (1000 cc): 🐜 Agip ROTRA MP/S 80 W 90.

(Recommended) fork oil: 🐜 Agip FORK 5W or 🐜 Agip FORK 20W.

Bearings and other lubrication points (recommended): 🐜 Agip GREASE SM2.

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.

#### **WARNING**

Use new brake fluid only. Do not mix different brands or types of oil unless you are sure that the different oil bases are compatible.

(Recommended) brake fluid: The system is filled with SAgip 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.

MOTO GUZZI AUTHORIZED DEALERS AND SERVICE CENTERS



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

A vehicle kept in sleek running order is a reliable vehicle. Other key factors are pre-ride checks, proper maintenance at the recommended intervals and the use of **Moto Guzzi** Genuine Parts only!

To find contact information of the Authorized Dealer and/or Service Center nearest to 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.

Moto Guzzi s.p.a. wishes to thank you for purchasing this vehicle and recommends the following:

- Do not release oil, fuel, polluting substances and components into the environment.

- Do not keep the engine running when not necessary.
- Avoid disturbing noise.
- Respect the environment.