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### INTRODUCTION

#### Griso 8V New power to the Moto Guzzi.

*"....His power was increased both by the fact itself and in public opinion".*

This quote from "I promessi sposi" by Alessandro Manzoni, refers to Griso, the head of a group known as the "Bravi" "*to whom the most dangerous jobs were entrusted*". This refers to the character of the new Griso 8V that is the smartest and most high spirited Moto Guzzi ever made and that encompasses an absolute new sense of "Sporting spirit" stemming from the power and technology of the innovative "Quattrovalvole" engine.

Although designed along traditional lines, the new engine features 563 brand new components and is a celebration of the logic behind the 90° V concept. It features a single overhead camshaft per head that operates the four valves on each cylinder with noiseless timing chains. This is quite an evolution of the 1200 cc engine that, with its 75% of its components renewed, now puts out 110 CV at 7,500 rpm with maximum torque of 11 kgm at 6,400 rpm.

The power delivery is silky smooth and on the open road the bike's true sports character shines along with the countless technical innovations and the new sense of style. Although the exclusive exhaust system with twin coiled pipes has been seen before, it now truly reflects the greater power of these machines.

From the looks point of view, the Griso 8V has undergone customising that includes particular stylistic details like the new saddle and streamlined bodywork as well as equipment levels of the highest possible level. Even the most discerning of palates will appreciate the front end with its Brembo P4/34 radial caliper brakes that act on *wave* floating discs measuring Ø 320mm. They will also delight in the Showa upside-down forks that have had 43 layers of carbon nitride treatment.

Sitting astride the bike, the rider can immediately appreciate the sports riding position that the new setup between handlebars, saddle and footpegs provides. These are all new components and were specially designed to make the rider feel completely in control. The two-seater saddle creates a superb rear view and there seems to be a tail like on a single seater. In fact there is more than enough room for a passenger to sit in great comfort.

Powerful, elegant and exclusive, the Griso 8V will soon become an icon among those who truly appreciate elite motorcycles. The Griso is offered in two colour schemes: Jet Black or Moon White.



### STYLE

#### **Incomparable style.**

With the Griso 8V, Moto Guzzi once more majestically demonstrates how it can come up with a concept then develop it without having to give in to technical, traditional or other constraints.

This machine is an instinctive creation, pure, solid as a rock and has a distinct personality. It appears simply as a work of art.

Design details, discreet hollows and unexpected new lines blend together in chrome and satin finished metal to form miracles of design. The fuel tank for example seems to bend to the power of the massive frame only to form an aerodynamic teardrop of exquisite beauty. The tail seems no more than an afterthought yet houses three high intensity LED light units. The new Griso is decidedly masculine and powerful yet the "Quattrovalvole" engine seems to be set like a jewel in a frame that shows off its revolutionary design to the utmost effect. A glance at the fins carefully laid out on the black cylinders is all that is needed. They have been so designed to provide maximum cooling. The rocker covers too draw the eye and, bit by bit, the care and attention paid to the creation of this machine come clear especially when you examine the superb exhaust system.

The incredible two-into-one exhaust system underscores the potential of the new Griso 8V.

Returning to the reality of performance, it becomes obvious that the sophisticated components are not mere technical details included for the sake of style. Take the front end that would be more at home on a racing bike with its oversized upside-down forks, radial caliper brakes and wave discs. The sporting lines of the saddle and bodywork complete the picture as do the new handlebars that have been specially designed to improve the aerodynamic package with the rider an integral part.

Details like this and simple intuition make the Griso 8V a machine to leave an impression before you even ride it.



### COMFORT

#### **Sheer pleasure.**

Just sit astride the Griso 8V to really understand how unique it will be to ride.

With a new setup between saddle and the sports type handlebars, the Griso welcomes the rider with a spectacular view of chromed, anodised and satin-finished components, displays and commands that leave nothing to the imagination.

Once aboard the Griso, the saddle that is only 800 mm from the road, grips the rider yet allows easy changes in riding position further aided by the slightly set-back high racing type footpegs.

The riding position is sporting where the rider is not "in" but over the engine and the feet feel "natural" on the footpegs. The rider's body tends to lean in to the handlebars that are now wider and provide a perfect grip of the levers.

This position is ideal for precise accurate steering made even better perfectly designed front end geometry and generous tyre sizes. The Griso is a hedonist's dream come true and the growl of the new "Quattrovalvole" engine echoes in your ears even under the most difficult conditions like city traffic. The 8V takes conditions like these in its stride and the ease of changing direction and constant load on the front end make even such riding a pleasure. This however does not mean that the fashion naked from Mandello is not suited to more aggressive riding. In fact there are certain times when the total lack of vibration from the new "Quattrovalvole" seems to get lost in the seductive style, the superb finish, the softness of commands and the of the completeness of the instrumentation.

It is at moments like this when the rider is in complete harmony with the machine, when he is in total command of an engine that can take him up to enormous speed or he can just cruise along with masses of torque ever on tap. One thing that is certain is that just looking at the rev counter can never really explain what the new Griso 8V is all about.



### FRAME

#### Beauty in motion

Don't let the long low profile fool you: The Griso 8V has handling that would not shame a supersport machine. The secret lies in the high-tensile steel frame with twin upper supports whose design owes little to aesthetics and much to sophisticated engineering concepts that provide exceptional rigidity under moments of extreme torsional stress. The tubular steel twin cradle frame is connected to a single-sided aluminium rear swingarm housing the CARC system.

The frame geometry had been carefully calculated to provide stability with the steering angle set at 26° and rake at 108 mm. The wheelbase measures 1544 mm and the Griso 8V is surprisingly manoeuvrable, even lightning fast in changes of direction.

These handling characteristics are due to the low centre of gravity and a rock solid off-set steering head that provides an immediate response to pressure on the handlebars. The front end is glued to the road thanks to upside down forks from racing stock. The 43 mm forks are adjustable for rebound and compression. A Boge progressive suspension unit is fitted to the rear and this too had three classic settings. The sophisticated suspension ensures a neutral set-up on entering and exiting corners, under acceleration from the 110 CV "Quattrovalvole" engine and under braking from the Brembo brake system. These brakes are both aesthetically pleasing and highly effective with their radial calipers acting on "wave" discs that have been specially designed for maximum heat dispersion.

What really counts in the frame is the sum of all the parts and, here again, the Griso is beyond compare.



## ENGINE AND TRANSMISSION SHEER POWER



The new "Quattrovalvole" is the most evolved V 90 twin in the Moto Guzzi range. Even die-hard enthusiasts would not recognise this new engine that features components and performance characteristics never before seen in a production Moto Guzzi machine.

The new engine features a chain-driven single overhead camshaft per cylinder that operates two intake and two exhaust valves inclined respectively at 15.5° and 16.5°.

The highly sophisticated new engine now houses 563 new components specially designed to reduce weight and friction between moving parts and was created through advanced studies into the disciplines of thermodynamics and fuel supply. The final results provide an engine made up

of 75% of new components with improved performance, reliability and flexibility characteristics that set new standards in quality. Among the most important new components are the 55% stiffer crankshaft and a new system of ducting oil to the bearings, 3-segment pistons cooled by oil jets on the casing and extremely light valves with 5 mm stems held by conical section springs that eliminate resonance and power loss at high revs.

Lubrication and cooling are looked after by two coaxial pumps that have drastically reduced engine clutter and are activated by a series of gears. These pumps carry oil in ducts that are separated from the cylinder heads to the exhaust valve seats where temperatures are at their highest. A new more compact block was designed so as to accommodate these new components and this unit now sits on an integral front support on bearings. The rear support features a new flange and more efficient oil feed system.

The most seductive element of the new "Quattrovalvole" is without any doubt the modern design of the cylinders that are more compact and feature cooling fins aimed at the on-coming flow of air. As part of the new project, the rocker covers have been redesigned and apart from "Quattrovalvole" logos, feature a "floating" system that further adds to the quietness of the timing system operated by Morse chains and fitted with hydraulically operated chain tensioners.

Fuel feed too has seen significant modifications in terms of now having 50 mm throttle bodies and new Marelli IWP 189 injectors. Needless to say, the six-speed gearbox is a gem of engineering. The gears are quiet and finding neutral is easy thanks to the fitting of a soft silent single plate clutch.



The figures speak for themselves: 110 CV at 7,500 rpm with maximum torque of 11 Kgm at 6,400 rpm. These readings make the Moto Guzzi twin one of the most powerful air-cooled engines ever made. A final drive ratio of 12/44 transforms all this power into over 230 kph (143 mph). Although speeds like this are illegal just about everywhere, they give some idea of what the new Griso is capable of. Perhaps more importantly are the facts that the engine meets the new Euro 3 standards thanks to improved thermodynamic output and that it uses less fuel than the 1100cc version.

### MAIN CHARACTERISTICS

#### DESIGN

- 8V logo and new Moon White colour scheme.
- New handlebars in black anodised aluminium.
- New sports style saddle.
- New streamlined bodywork.
- Racing footpegs.
- “Quattrovalvole” full black powertrain.

#### ENGINE

- 1200 V 90° “Quattrovalvole” twin
- Single overhead cam per head with hydraulically operated valves.
- Single plate clutch
- New exhaust system with two-into-one coiled pipes.
- New block with integrated front bearings.
- New valves with 5 mm stems
- New 55% stiffer crankshaft.
- New 3 segment Asso forged pistons.
- New conical valve springs
- Independent self-contained oil cooled heads
- Pistons cooled by oil jets.
- New oil cooler pump with overpressure valve.
- New coaxial oil lubrication pump with cooling pump.
- Gear driven timing shaft and oil pump.
- New type of con rod bearings.
- Silent “Morse” camshaft chains.
- Hydraulic chain tensioners and rollers.



- New 50 mm throttle body.
- New Marelli IWP 189 injectors.
- Noise reducing “floating” rocker covers.
- “Reactive” shaft drive transmission
- 6-speed gearbox.
- Euro 3

### FRAME

- High tensile steel tubular twin cradle
- Upside down 43 mm pre-load adjustable hydraulic front forks with mounting for radial calipers.
- Pre-load and rebound adjustable shock absorber
- Rear suspension with single progressive swingarm adjustment
- Front brakes with 320 mm perforated wave discs and 4 (opposed) piston calipers.
- Rear 282 mm disc with floating caliper fitted with 2 parallel pistons
- Rear tyre 180/55/17
- Front tyre 120/70/17





TECHNICAL DATA

**MOTO GUZZI GRISO 8V**

**ENGINE**

Type	: Four-stroke V 90 twin
Cooling	: Air and oil cooled with independent cooling pump
Capacity	: 1,151cc
Bore and stroke	: 95 x 81.2 mm
Compression ratio	: 11 : 1
Timing diagram (play 1 mm)	: Intake valve opening 36° before upper TDC. Intake valve closing 62° after lower TDC. Exhaust valve opening 58° before lower TDC. Exhaust valve closing 30° after upper TDC. measured with rocker arm/valve play of 1.5 mm
Maximum power output	: Over 80.8 kW (110 CV) at 7,500 rpm
Max Torque	: Over 108 Nm at 6,400 rpm
Fuel supply/ignition	: Multipoint sequential electronic injection, Magneti Marelli IAW 5A phased, alfa-n system; 2 x Ø50 mm throttle bodies with Weber IWP 189 injectors, Lambda probe.
Starter	: Electric
Spark plugs	: NGK PMR8B (Long Life)
Exhaust system	: Stainless steel two-into-one 3-way catalysed with Lambda probe.
Homologation	: Euro 3

**TRANSMISSION**

Gearbox	: 6 speed
Gear ratios	: 1st 17/38 = 1 : 2.235 : 2nd 20/34 = 1 : 1.700 : 3rd 23/31 = 1 : 1.348 : 4th 26/29 = 1 : 1.115 : 5th 31/30 = 1 : 0.968 : 6th 29/25 = 1 : 0.862
Lubrication	: Oil bath
Primary drive	: Helicoidal gears, ratio 26/35 = 1 : 1.346
Final drive	: CA.R.C reactive drive; double universal joint with floating bevel gear, ratio 12/44 = 1 : 3,666
Clutch	: Single plate with integrated flexible couplings

**FRAME**

Frame	: High tensile steel tubular twin cradle
Wheelbase	: 1,554 mm
Rake	: 108 mm
Steering rake	: 26.30°
Steering angle.	: 34°
Front suspension	: Upside down Ø 43 mm fully adjustable forks (spring preload and hydraulic for rebound and compression) with mounting for radial calipers.
Front wheel travel	: 120 mm
Rear suspension	: Progressive single swingarm, fully adjustable monoshock with separate gas reservoir (spring preload and hydraulic for rebound and compression).
Rear wheel travel	: 110 mm



Front brakes	: Twin floating 320 mm stainless steel wave discs, radial calipers with 4 opposed pistons.
Rear brakes	: Single 282 mm fixed stainless steel disc, floating caliper with 2 parallel pistons.
Wheels	: Three-spoked aluminium alloy
Front wheel	: 3.50" x 17"
Rear wheel	: 5.50" x 17"
Front tyre	: 120/70 ZR17"
Rear tyre	: 180/55 ZR17"

### ELECTRICS

Voltage	: <b>12 V</b>
Battery	: 12 V – 18 Ah
Alternator	: 12 V – 550 W

### DIMENSIONS

Length	: 2,260 mm
Width	: 830 mm
Height	: 1,070 mm
Saddle height	: 800 mm
Minimum ground clearance	: 185 mm
Dry weight	: 222 kg
Fuel tank capacity	: 16.7 litres
Reserve	: 3.3 litres

Technical data specified above for the Moto Guzzi GRISO 8V may be changed without prior notice.



### ACCESSORIES

#### **There is only one Griso**

No two riders are the same. For this reason, Moto Guzzi has created a range of accessories designed to customise their machines and let them reflect their owners.

#### **Fly screen**

The addition of an elegant Plexiglass fly screen makes the Griso 8V even more fascinating and sophisticated and adds to aerodynamic efficiency. The fly screen has been tested in a wind tunnel and assures increased comfort on long distance journeys. Thanks to solid its construction using the best of materials, the screen easily passed the strict TÜV and DOT tests.

#### **Carbon fibre starter motor cover**

The carbon fibre starter motor cover, made in collaboration with CarbonDream®, is cured in an autoclave then polished.

It ensures both a significant weight saving and an even sportier look.

#### **Carbon fibre heat shield**

The carbon fibre heat shield made, in collaboration with CarbonDream®, is cured in an autoclave then polished.

It ensures both a significant weight saving and an even sportier look.

#### **Carbon fibre front mudguard**

The carbon fibre front mudguard, made in collaboration with CarbonDream®, is cured in an autoclave then polished. It ensures both a significant weight saving and an even sportier look.

#### **Carbon fibre instrument panel**

The carbon fibre instrument panel, made in collaboration with CarbonDream®, is cured in an autoclave then polished. It ensures both a significant weight saving and an even sportier look.



### LIFESTYLE

#### **The distinction of a Griso**

A range of accessories for those that not only ride but live the Griso every day with items ranging from glasses to leathers.

#### **Griso 8 V glasses**

These new Griso 8V glasses that feature aluminium and magnesium frames are extremely light (less than 25 grammes) and have polycarbonate lenses and flexible arms with a concealed mechanism.

#### **Sports leathers**

A racket and trousers combination created in collaboration with Dainese. The suit is made from precious cowhide and is sealed against the elements by zips. There are composite material protective pads on the forearms, elbows, shoulders, knees and shins and knee sliders are available. The jacket has a removable thermal lining. The sections for knee sliders are covered with cowhide. Available in black with anthracite inserts.