Owner's manual 2012

EC 2T 250c.c./300c.c.

GASGAS

Manual made by: Automotive Technical Projects, S.L.

GASGAS

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GENERAL INFORMATION

Introduction

GAS GAS Motos, S.A. thanks you for your confidence.

With the choose of your new **GAS GAS EC 2012** you just entered the great **GAS GAS** team and, as a user of the brand number one on off-road motorcycles, deserves distinguished treatment that we want to offer both our relationship after the acquisition of your **GAS GAS** and in the explanations that you are in this manual.

Your **GAS GAS EC 2012** is a bike designed for the practice of the high competition, it is the result of many years of racing and experience in such demanding disciplines. The many successes achieved by great riders with our **GAS GAS** bikes, have provided basic data in order to create these high level motorcycle. A few exclusive motorcycles **GAS GAS** with three key factors: reliability, high performance and good stability.

Congratulations because your election has been, without doubt, the right one. With your prowess to the handlebars of your **GAS GAS** and with adequate preparation and corresponding revisions are essential to ensure that your **GAS GAS** is highly reliable, you can enjoy more comfortable and grateful practice the sport motorcycle.

Thank you for your trust and welcome to **GAS GAS Motos, S.A.**

Legal notices

In the interest of technical development **GAS GAS Motos, S.A.** reserves the right to modify the construction, staffing, and accessories of the motorcycle without prior notice. Data measures, weights, and powers are understood with the respective tolerances.

Depending on the volume of equipment and accessories for your **GAS GAS**, as well as the versions certified to respect the various laws of each State, there may be variations on the descriptions and illustrations. So the pictures exposed in this manual may therefore not correspond to the purchased model. That's why not may arise claim some exception error, error of printing or omission.

Notices and warnings

Please read carefully this manual with special attention to the following notices:

DANGER

Notice about a danger that leads to serious injury and even death.

WARNING

Notice about a danger which may cause personal injury and/or damage to the vehicle.

Preliminary warnings

DANGER

Three of each four fatal accidents are due to head injuries. The risk of brain injury is three times higher if you don't use a helmet. Always take a helmet approved, the probability of leaving unharmed in an accident increases by 20%. It also recommends the use of eye protection and gloves, boots and other items for protection that are in perfect condition.

Never carry passenger. Your GAS GAS is not approved for this purpose, does not have an appropriate saddle, handles or footrests for passenger. In addition weight and imbalance can affect handling.

Avoid modifications in your GAS GAS with non-original accessories and don't remove off the original elements, these changes can affect stability and handling, making it a dangerous and illegal vehicle. GAS GAS requires the use of original spare parts and accessories, or parts and accessories homologated by GAS GAS Motorcycles, S.A. It is an essential condition for maintaining the warranty.

Your GAS GAS has been designed for off-road use, not designed for long travel on highways. Such use could lead to engine damages because it maintained high revolutions. Also tyres are not suitable for use on paved surfaces. It has not been designed for urban use. Long tops at traffic lights in town could overheat the engine.

Maintain your GAS GAS in good condition. To avoid any problem, inspect your motorcycle before each use and then all maintenance recommended in this manual. After a fall, inspect that the main elements have not been damaged. Driving a motorcycle in a bad state can be cause of an accident with serious injuries and even death.

DANGER

The exhaust pipe and other parts reached high temperatures during use and take to cool down once the engine shutdown. Avoid handling or touching anything during this period. The use of shorts is not recommended, may cause burns on the legs.

DANGER

Avoid wearing loose clothing that could engage with parts of the vehicle or the environment. Although total security is impossible, the use of suitable equipment reduces the possibility and/or the severity of injuries.

Controls and components location

Number	Name	Number	Name
1	Headlamp with position, low beam and high beam lamps	10	Front brake caliper
2	Front turn signals	11	Front fork
3	Fuel tank	12	CDI switch
4	Fuel valve	13	Gear shift pedal
5	Rear shock	14	Carburetor
6	Air filter	15	Secondary transmission chain
7	Side stand	16	Chain guide
8	Rear turn signals	17	License plate holder
9	Front brake disc	18	Rear reflector

Controls and components location

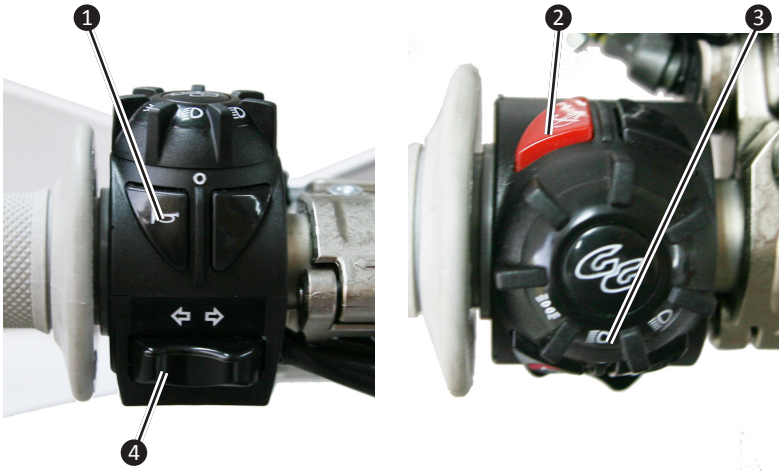
Number	Name	Number	Name
1	License plate light	9	Muffler
2	Brake light	10	Rear brake disc
3	Seat	11	Rear brake caliper
4	Rear shock gas reservoir	12	Rear brake master cylinder
5	Kick-starter	13	Suspension linkage
6	Manufacturer's identification plate	14	Rear brake pedal
7	Radiator	15	Sump guard
8	Exhaust	16	Front axle handle

Controls and Components location

Number	Name	Number	Name
1	Clutch lever	6	Front brake master cylinder
2	Choke lever	7	Throttle
3	Clutch fluid reservoir	8	Front brake lever
4	Multifunction gauge[1]	9	Turn signals, lights, horn and engine stop controls[2]
5	Fuel tank cap	10	Steering lock

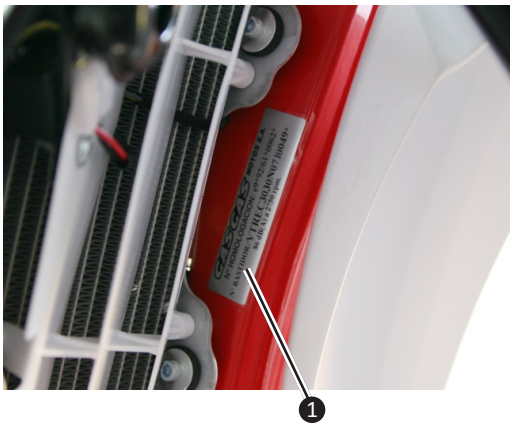
[1]Not available on CrossCountry models.

[2]The CrossCountry models have an independent lights "on-off" and engine stop switches.



Number	Name	Number	Name
1	Horn	3	Position, low beam and high beam lights
2	Engine stop	4	Turn signals

Identification



Your **GAS GAS** has a manufacturer's identification plate (1) in which details are: manufacturer, chassis number, homologation number and noise level.

The chassis number is also stamped in the right side of the steering column (2).

Steering lock

Your **GAS GAS** has a steering lock. It's found on the left side of the steering column.

To lock the steering:

1. Turn the handlebar fully to the right.
2. Insert the key into the lock and rotate it ⅛ of turn counter-clockwise.
3. Press the key inside.
4. Turn the key clockwise to its original position and remove.

The lock should be sunk for the steering lock to be effective.

Specifications

	Code		**GG-E2512-**	**GG-E3012-**
	Comercial model		**EC250**	**EC300**
ENGINE	**Cycle**		2 strokes	
	Cylinder number		Monocylinder	
	Refrigeration		Liquid cooled	
	Capacity		249,3 cc	294,7 cc
	Bore		66,4 mm	72,0 mm
	Stroke		72,0 mm	72,0 mm
	Carburetor		Keihin PWKS 38	
	Intake type		Reed Valves into the cranckcase	
	Lubrication system		Mixture in gasoline	
	Starting mechanism		Kick-starter	
	Ignition type		CDI	
	Pre-ignition set-up		0 mm from TDC	
	Spark plug		DENSO W24ESR-U o NGK BR8EG	
	Electrode gap		0,7~0,8 mm	
TRANSMISION	**Primary ratio**		2,85 (57/20)	
	Gearbox		6 gears	
	Gear ratio	1st	2,07 (29/14)	
		2nd	1,63 (26/16)	
		3rd	1,33 (24/18)	
		4th	1,10 (22/20)	
		5th	0,91 (21/23)	
		6th	0,79 (19/24)	
	Secondary transmission		By chain	
	Secondary ratio		3,69 (48/13)	
	Drive chain		5/8" x 1/4" with O-Rings (112 links)	
	Clutch type		Multi-disc wet clutch	
	Clutch trigger		Hydraulic	
	Lubrication	Medium	Oil	
		Capacity	900cc	
	Available rear sprockets		39, 40, 42, 44, 46, 47, 48, 49, 50, 51, 52	
	Available front sprockets		12, 13	
CHASSIS	**Type**		Perimeter CrMo alloy frame, 3 component polymer subframe	
	Tires	Front	90/90x21	
		Rear	140/80x18	
	Tire pressure	Front	1,0 bar	
		Rear	1,0 bar	
	Suspension	Front	Inverted telescopic fork ø 48 mm with rebound and compression damping adjustments	
		Rear	Progressive shock absorber with spring pre-load, rebound, high speed and low speed compression damping adjustments	

Specifications

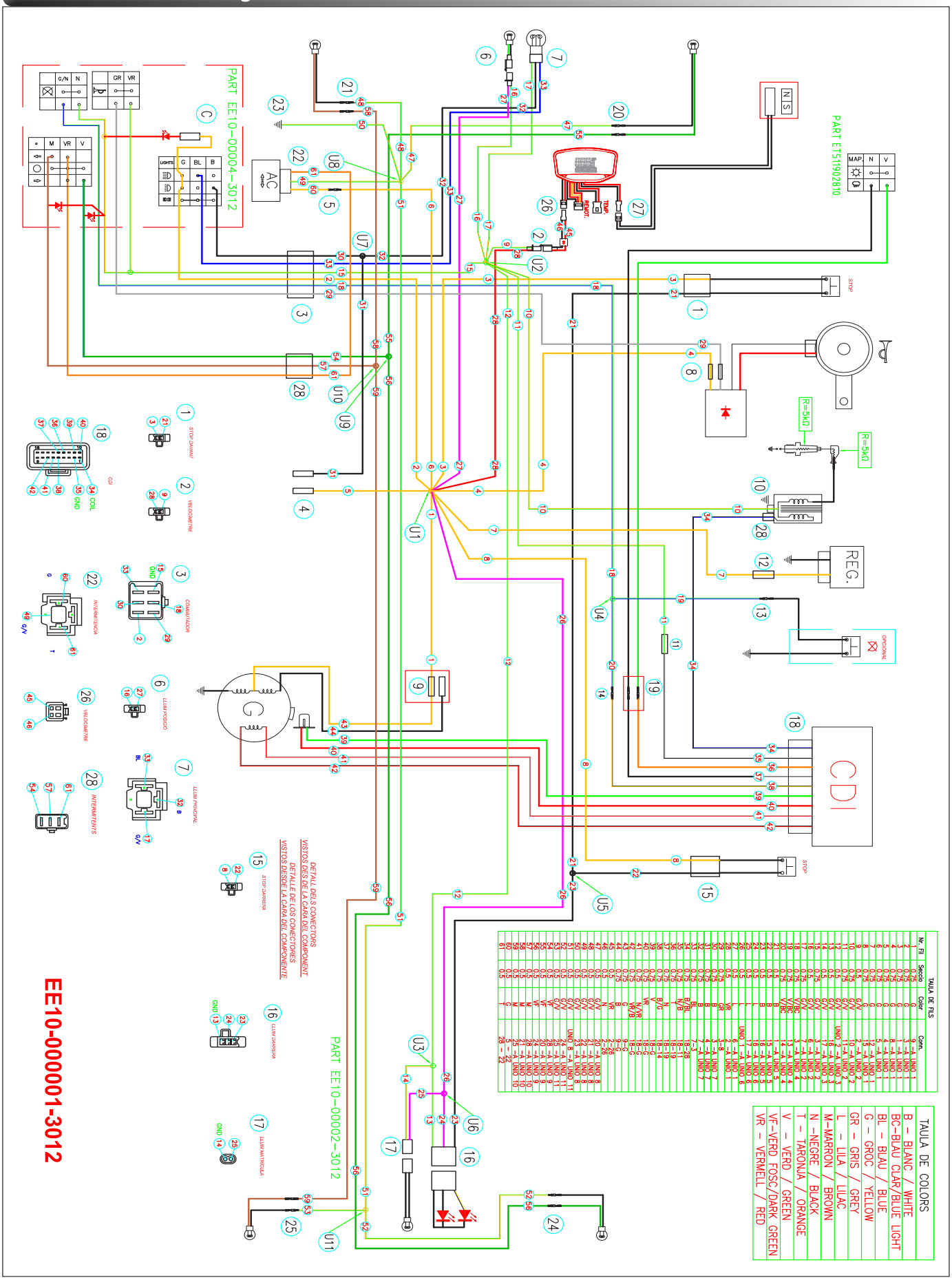
					EC250	EC300
CHASSIS	Suspension travel		Front		298 mm	
			Rear		298 mm	
	Front fork oil level				130 mm (compressed, without spring)	
	Brakes		Front		Brake disc, with 2 parallel floating piston caliper	
			Trasero		Brake disc, with 1 floating piston caliper	
	Brake disc		Front		Ø260 mm	
			Rear		Ø220 mm	
DIMENSIONS	Total height				1260 mm	
	Total length				2200 mm	
	Seat height				960 mm	
	Minimum height				375 mm	
	Total width				830 mm	
	Wheelbase				1475 mm	
	Dry weight				102 kg	
	Fuel tank capacity				10,5 l	
LIQUIDS			RECOMMENDED			
	Fuel				Unleaded (RON 95 minimum)	
	Mixture fuel/oil (JASO FC)		GRO Off Road 1		100% synthetic oil ratio 2% (50:1)	
					Semisynthetic oil ratio 2% (50:1)	
					Mineral oil ratio 3% (32:1)	
	Coolant[1]		GRO GCC 30% Long Time		Coolant mixture at 30%	
	Brake fluid		GRO Brake Fluid DOT-4		DOT-4	
	Clutch fluid		GRO Global Ultra-5		Mineral oil	
	Transmission oil		GRO Gear Trans 10W30		10W30 API SF or SG	
	Fork oil		FUCHS TITAN SAF 1091		SAE 3	
CARBURETION	Homologation[2]	Carburetor type			Keihin PWKS 38	
		Main jet			115	
		Idle jet			35	
		Needle			CHN	
		Needle position			5th from top	
		Throttle valve			7	
		Mixture screw			1 turn from fully closed	
	Competition[3]	Carburetor type			Keihin PWKS 38	
		Main jet			175	
		Idle jet			42	
		Needle			N1EF	
		Needle position			3rd from top	
		Throttle valve			7	
		Mixture screw			1 turn from fully closed	

[1]Cold countries must adjust the coolant to their temperature.

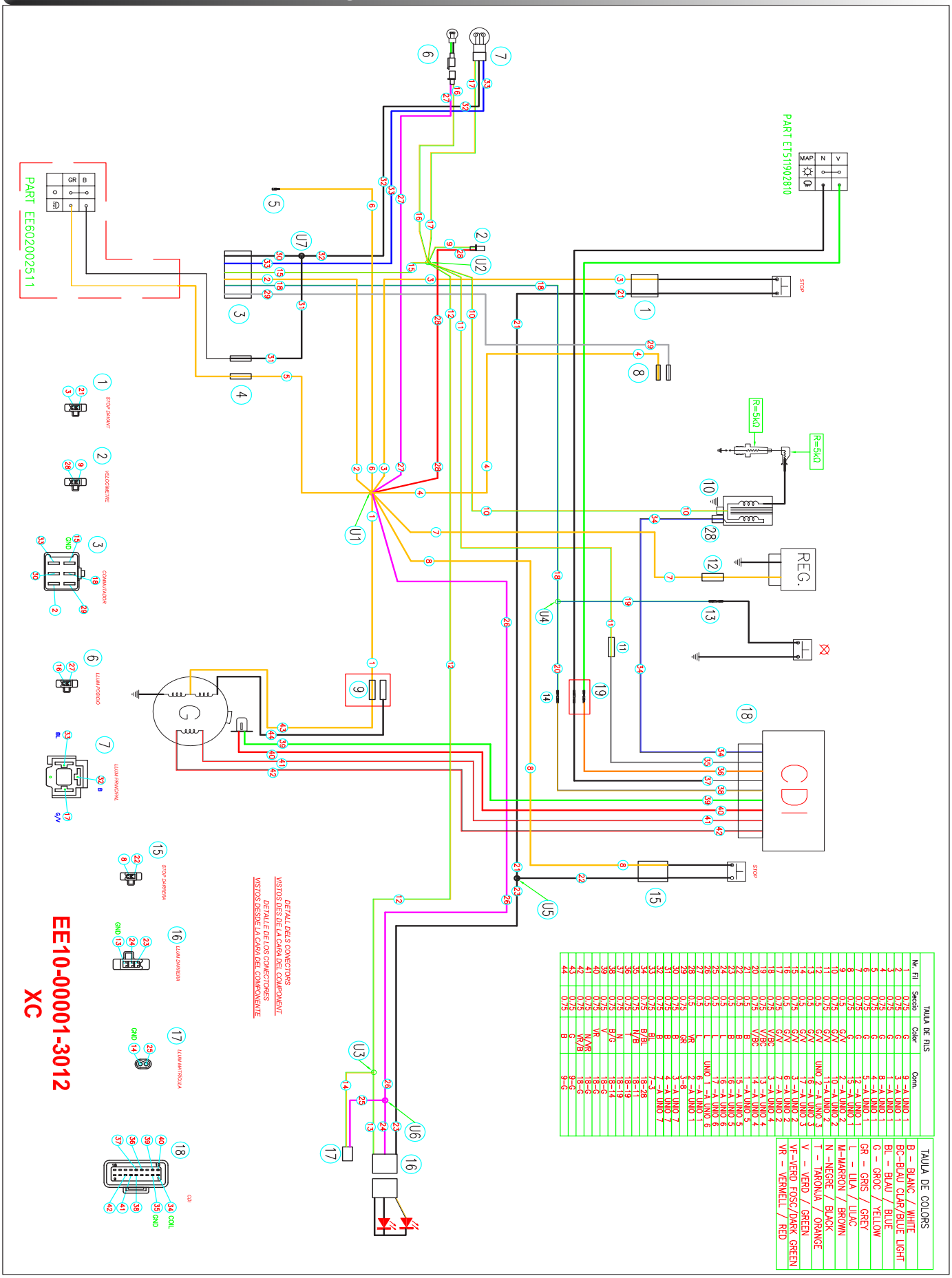
[2]Not valid on CrossCountry models.

[3]Closed-circuit use only.

EC models electrical diagram



CrossCountry models electrical diagram



Torque Values

GENERAL

	Size	Torque (Nm)
GENERAL	M4 nuts and bolts	3
	M5 nuts and bolts	6
	M6 nuts and bolts	10
	M8 nuts and bolts	25
	M10 nuts and bolts	45

CHASSIS

	Nº	Name	Size	Torque(Nm)
CHASSIS	1	Steering nut	M24	20
	2	Rear shock bolt	M10x50	45
	3	Swingarm bolt	M14	70
	4	Brake disc bolt	M6x15	12
	5	Front axle bolt	M20x15	50
	6	Brake caliper bolt	M8x30	30
	7	Engine mount bolt	M10x120	50
	8	Rear sprocket bolt	M8x25	30

Torque Values

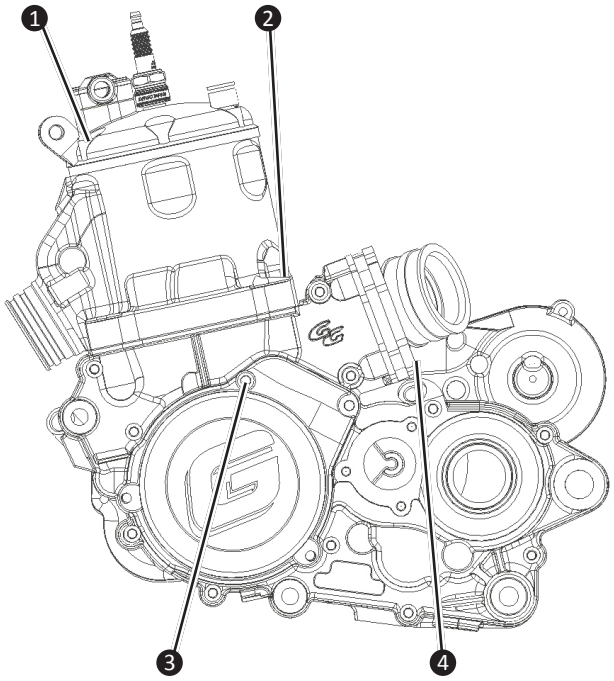
	№	Name	Size	Torque(Nm)
CHASSIS	1	Subframe bolt	M8x25	25
	2	Brake banjo bolt	-	6
	3	Upper clamp bolt	M8x35	15
	4	Spokes	-	1,5
	5	Rear axle nut	M20	80
	6	Linkage bolt	M14x115	80
	7	Rear brake pedal bolt	M8x45	20

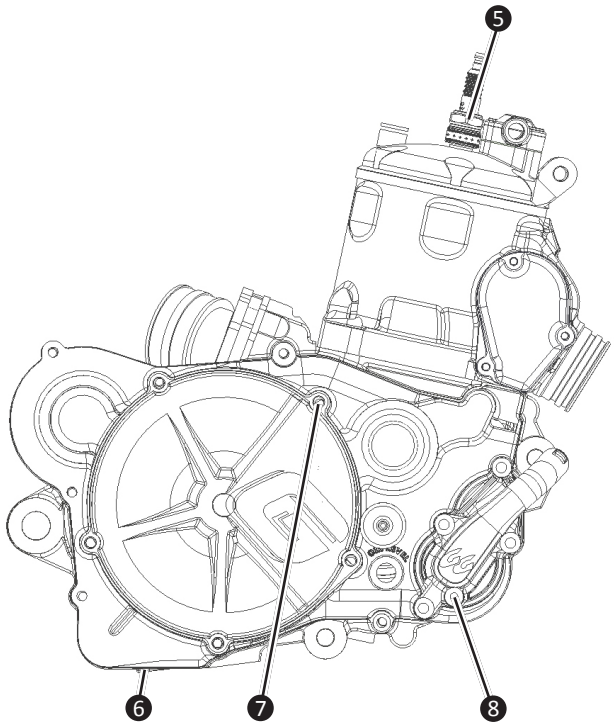
Torque Values

ENGINE

	Nº	Name	Size	Torque (Nm)
ENGINE	1	Valve cover bolt	M6x15	8
	2	Gearshift pedal bolt	M6x20	15
	3	Kick-starter bolt	M6x10	12
	4	Kick-starter bolt	M6x20	10
	5	Crankcase bolt	M6x65	10

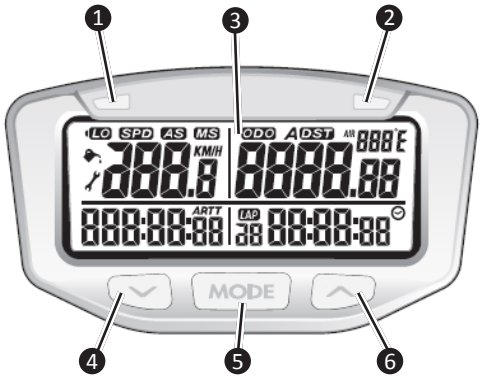
Torque Values





	Nº	Name	Size	Torque (Nm)
ENGINE	1	Cylinder head bolt	M8x40	25
	2	Cylinder nut	M8	25
	3	Ignition cover bolt	M6x40	12
	4	Reed block bolt	M6x30	12
	5	Spark plug	-	25
	6	Engine drain plug	-	20
	7	Clutch cover bolt	M6x75	10
	8	Water pump drain bolt	M6x10	9
	-	Starter pedal plate bolt	-	8
	-	Ignition motor stator bolt	-	8
	-	Ignition motor coil nut	-	40
	-	Selector spring fixing bolt	-	15
	-	Primary nut	-	40
	-	Clutch spring bolt	-	10
	-	Valve control support bolt	-	10
	-	Valve control nut	-	8
	-	Thermostat cover bolt	-	10

Multifunction gauge



NOTE: This chapter is not valid on CrossCountry models.

The multifunction device is water resistant, has 3 buttons, 2 LEDs. And a brigthly lit LCD.

1. Amber warning led
2. Red warning led
3. LCD screen
4. Left button
5. Middle button or MODE
6. Right button

It provides information about the speed, average speed, maximum speed, covered distance, total covered distance, operation time, total operation time, environmental temperature, engine temperature, time, and maintenance.

NOTE: engine temperature sensor is optional and is not available in **GAS GAS**.

WARNING

The multifunction device is water resistant but not waterproof.

Do not leave the device in direct sunlight when the motorcycle is stopped.

Avoid contact with gasoline, degreasers or other cleaning chemical products that could be cause damages in the device.

Always remember to pay attention to the road when you're driving.

Quick guide

NORMAL MODE

Enable the screen backlight for 3 seconds, if the icon LO is displayed on the screen or the temperature is below -5°C will not turn on

MODE — Switch between screens in normal mode

Start/Stop stopwatch

CONFIGURATION MODE

+ MODE + — Enter to configuration mode

MODE — Switch between configuration parameters

Move through the current parameter

Move to the next digit of the current parameter

Quick guide

TEMPORAL DATA RESET

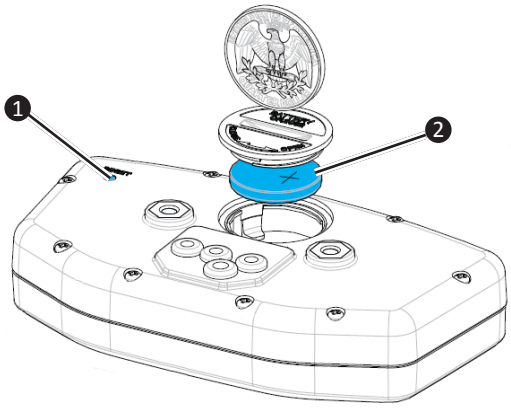
Resets temporal data (MS, TT, DST and RT)

TRIP ADJUST

Enter/exit the trip adjustment mode

Change distance value

Reset and change of battery



When the device turns on the LO icon, indicates that the battery charge is low and should be changed.

To change the battery (2) you must access to the rear of the device, dismount the front light.

Use of the back reset button will reset all data from the device except the configuration parameters, the odometer and total operating time.

Specifications

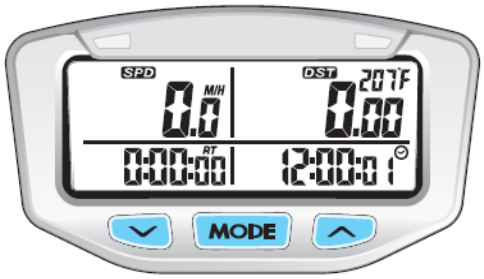
Function	Display	Range	Units	Increment	Precision
Current speed	SPD	4-399.9 km/h or MPH	km/h or MPH	0.1 km/h or MPH	±0.1%
Average speed	AS	4-399.9 km/h or MPH	km/h or MPH	0.1 km/h or MPH	±0.1%
Maximum speed	MS	4-399.9 km/h or MPH	km/h or MPH	0.1 km/h or MPH	±0.1%
Distance	DST	0.00-9999.99 KM or M	km or M	0.1 km or M	±0.1%
Odometer	ODO	0.0-999999 KM or M	km or M	1 km or M	±0.1%
Stopwatch	TT	0-9999 hours 59 minutes	Hours:Minutes	1 Minute	±0.1%
Ride time	RT	0-999 hours 59 minutes	Hours:Minutes	1 Minute	±0.1%
Accumulated ride time	ART	0-9999 hours 59 minutes	Hours:Minutes	1 Minute	±0.1%
Temperature	°C or °F	0-399°	°C or °F	1 Grado	±0.1%
Clock (12h or 24h)	00:00:00	12:59:59 or 23:59:59	H:M:S	1 Second	±0.1%
Low battery	LO	Less than 2.45V	Volts		
Wheel size		0-3999 mm	mm	1 mm	±0.1%
Oil reminder		0-9999 KM or M	km or M	1 km or M	±0.1%
Maintenance reminder		0-9999 KM or M	km or M	1 km or M	±0.1%

Operating temperature: 0°C to 60°C (32°F to 140°F)

Storage temperature: -20°C to 80°C (-4°F to 176°F)

Battery: 3V CR2032 (About 1 year life)

Configuration



ENTER CONFIGURATION MODE

To enter the configuration mode press the three front buttons for three seconds, release them to continue.

SET SPEED UNITS

To switch between Km/h and MPH use the left button.

To confirm press the button MODE

SET WHEEL SIZE

The multifunction gauge needs to know the wheel circumference for the correct measurement of the distance and speed, makes this measure as precise as possible. See the "Measure of the wheel circumference" section for more information.

Change the blinking digit with the left button.

Change to next digit using the button

To confirm press the button MODE

SET CLOCK FORMAT

To switch between 12h and 24h format use the left button.

To confirm press the button MODE

SET TIME

Change the blinking digit with the left button.

Change to next digit using the button

To confirm press the button MODE

SET TEMPERATURE UNITS

To switch between °C and °F use the left button.

To confirm press the button MODE

Configuration

SET HIGH TEMPERATURE WARNING

When programmed engine temperature is reached, the amber warning led will turn on. The warning will be disabled if the value is 0.

Change the blinking digit with the left button.

Change to next digit using the button

To confirm press the button MODE

NOTE: engine temperature sensor is optional and is not available in **GAS GAS**.

SET DANGER TEMPERATURE WARNING

When programmed engine temperature is reached, the red warning led will turn on. The warning will be disabled if the value is 0.

Change the blinking digit with the left button.

Change to next digit using the button

To confirm press the button MODE

NOTE: engine temperature sensor is optional and is not available in **GAS GAS**.

SET OIL REMINDER

When programmed kilometers or miles are reacher, the oil change reminder icon will turn on.

Change the blinking digit with the left button.

Change to next digit using the button

To confirm press the button MODE

SET MAINTENANCE REMINDER

When programmed kilometers or miles are reacher, the maintenance reminder icon will turn on.

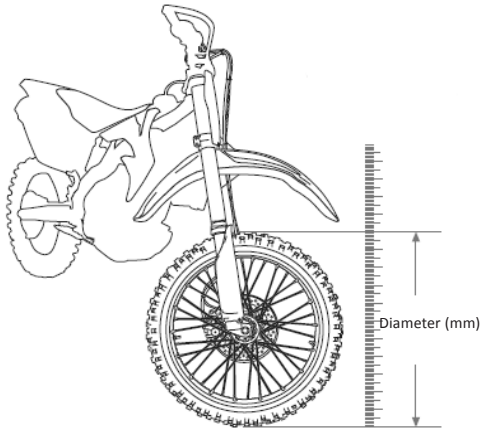
Change the blinking digit with the left button.

Change to next digit using the button

To confirm and go back to normal mode, press the button MODE

NOTE: the oil and maintenance reminders must be manually reset by entering them again in the configuration mode.

Measure of the wheel circumference



METHOD 1

Measure the diameter of the front wheel in millimeters. Multiply the diameter by 3.14 and you will get the measure of the wheel circumference.

Measure of the wheel circumference

METHOD 2

Find a totally flat surface. Make a mark on the flank of the tire and the ground. Advance with the motorcycle until the wheel complete one revolution. Make a mark on the ground at this point. Measure the distance between the marks of the ground and convert to millimeters. Use this number as a measure of the wheel circumference. For greater precision, the driver or an equivalent weight must remain at the motorcycle during this process.

Screens in normal mode

SCREEN 1

The following information is displayed:

- Actual speed (SPD)
- Distance (DST)
- Engine temperature
- Ride time (RT)
- Clock

NOTE: engine temperature sensor is optional and is not available in **GAS GAS**.

SCREEN 2

The following information is displayed:

- Average speed (AS)
- Distance (DST)
- Air temperature
- Stopwatch (TT)
- Clock

SCREEN 3

The following information is displayed:

- Maximum speed (MS)
- Odometer (ODO)
- Maximum engine temperature
- Accumulated ride time (ART)
- Clock

NOTE: engine temperature sensor is optional and is not available in **GAS GAS**.

Sleep mode

If the device is not used for 5 minutes is it will be automatically into sleep mode to save battery. In this mode it will only show the clock on the display.

The device will automatically exit this mode when it receives any sensor data or when you press any button.

Homologation

NOTE: This chapter is not valid on CrossCountry models.

The vehicle just acquired is a vehicle approved under the EU directives and comply with all the requirements for type-approval.

The components of approval required to ride on public roads and to pass technical legislative inspections, which are detailed below.

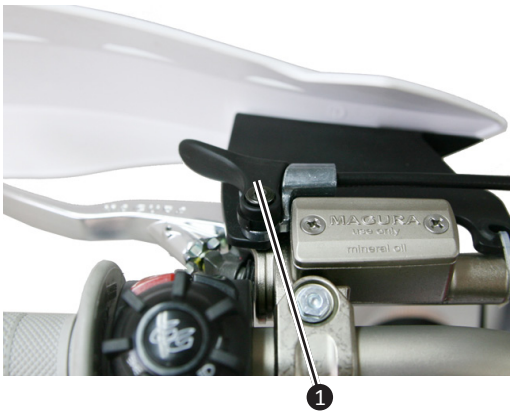
The components of type-approval are identified with a determined and registered stamp

Component list	Amount/moto
Manufacturer identification plate	1
Catalyzed exhaust	1
Silencer	1
Carburetor jets	1
Front and rear turning lights	4
Plate holder	1
Speedometer	1
Electrical equipment, homologated lights	1
Horn	1
Rear-view mirror	2
Anti-theft lock	1
Secondary air valve	1
Air filter restriction	1
Throttle opening limiter	1

Each component of type-approval must be a part of your **GAS GAS** and in case of breakage, loss or malfunction you must go to your official **GAS GAS** service to repair it.

OPERATING INSTRUCTIONS

Starting procedure



To start your **GAS GAS** follow this steps:

1. Open the fuel tap.
2. Deploy the kickstarter.
3. Give the throttle two energic strokes.
4. Pull the choke lever (1).
5. Push the kickstarter vigorously.

NOTE: With the motor at the operating temperature it will not be necessary to pull the choke lever.

Break-in procedure

It is important to respect the break-in procedure, with this you will ensure the duration and correct function of your **GAS GAS** in the long term. Intervals to respect are as follows:

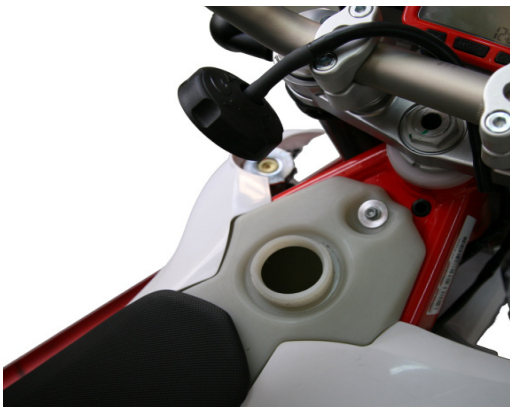
1. From 0 to 200 Km.: Ride between 50% and 75% of load (throttle opening), alternatively, without continued use of the 75% load.
2. From 200 a 300 Km.: Ride equal but occasionally reaching the 100% load, without keeping it more than 5~10 seconds.
3. From 300 a 400 Km.: Ride between 75% and 100% of load alternatively, without keeping the full load.
4. From 400 Km, increase demand with progressivity for about 60~80 Km, to reach its full performance.

DANGER

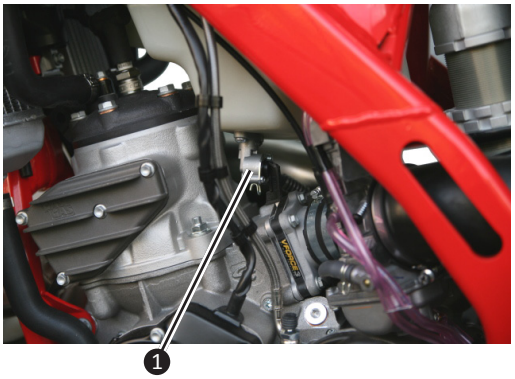
An imprudent acceleration can cause engine problems. Be careful to use the skills and techniques necessary when driving the bike.

Daily inspection

Prior to use your **GAS GAS**, it is necessary to carry out the following checks:



Is there enough fuel? Open the fuel tank plug and, moving the motorcycle laterally with the handlebar, you can see and hear fuel level, so that you can know the approximate content.



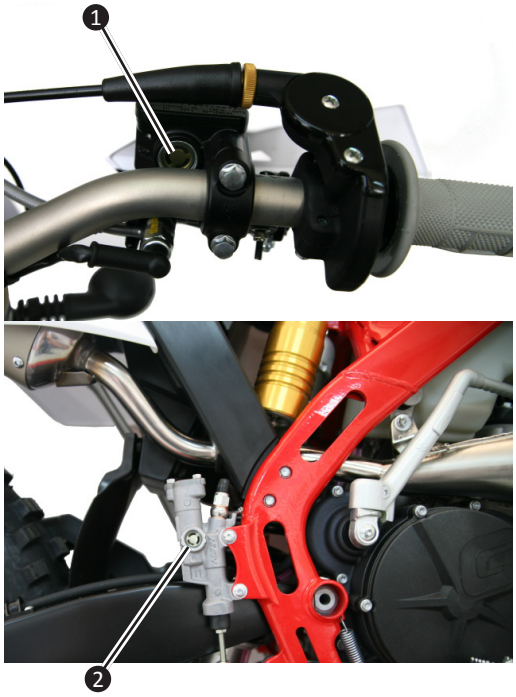
-Is the fuel valve open? The fuel valve (1) has three positions: open: ON (tap down key), closed: OFF (tap horizontal key to the right side of the bike) and reserve: RES (valve horizontal key to the left side of the bike). If the valve is in OFF position, the fuel can't arrive to the carburetor, the motorcycle engine does not run, this position is used only when the engine is stopped. If you know that there is little fuel in the tank, you must start the use with the tap in the RES position, and go immediately to refuel. If all is correct always be used the valve in the ON position**.**

NOTE: Always close the fuel valve (position OFF) when you stop the engine.

Is the engine oil level correct? See through the viewfinder If the oil level is adequate, if it is necessary to add.

Is the coolant level correct? Taking the radiator fill cap, you can check the coolant level. This should be just below the metal edge (1), if necessary, add.

Daily inspection



Is the brake fluid level correct? Front and rear brake fluid tanks have a viewfinder (1 and 2) to check its level.

DANGER

The brake fluid level must be in the center of the viewfinder, as a minimum, in both tanks, verify the thickness of brake pads and to ensure that they have not reached its limit of use. If the thickness is correct, complete brake fluid tank and ensure that there are no leaks. If you have any doubt go immediately to your **GAS GAS** official service. This may affect your safety.

Is the clutch fluid level correct? Verify as follows: motorcycle on its lateral stand and the handlebar at the right side, in this position take off the top tank cover with its rubber (attention to the dirt, is necessary to have a clean space where you leave the disassembled parts), slowly turn the handlebar to the left to get the level of the fluid to be parallel to the upper edge of the tank. The correct level is 6~8 mm from upper edge of the tank. If you have any doubt go to your **GAS GAS** official service.

Are the brake discs correct? Visually you can see significant scratches, cracks, excessive wear and tear, etc.

DANGER

Verify that the thickness of the discs are 3mm on the front and 3,5mm on the rear minimum. Go immediately to your **GAS GAS** official service if you don't know what to do in each case, this may affect your Safety. You must not ride your motorcycle.

Daily inspection

Are the brake pads correct? We can visually check the thickness of the lining (1) that remains, we know if are in function or we must change quickly, the thickness of the lining must be 1 mm as a minimum.

Does the controls have good touch? Front brake lever, rear brake pedal, clutch lever, gearbox pedal, starter lever, lights switches, engine stop switch, horn and lighters switches, gas command, kick starter. All commands have its operation and characteristic touch, a change indicates an abnormality or damage. You know your motorcycle, any change that you appreciate will make you immediately go to your **GAS GAS** official service. Your **GAS GAS** official service will be happy to assist you and ensure your safety.

Does the side stand have a correct touch and function? This is a part of motorcycles that often cause problems, including safety problems. Because it is a part of your motorcycle with have a severe work. If you perceive a strange touch or difficulty in its retreat, you must clean the lateral stand, its axel and springs, and verify the tightening of its bolt. If it continues with the incorrect function, go to your **GAS GAS** official service immediately, for your safety.

Always check the tires air pressure. If you have pressure problems, go to your **GAS GAS** official service.

Daily inspection

Does the wheel spokes have a properly tightness? Pressing with the fingers, we can know the possible lack of tension. In case of excessive lax in some wheel spiders, we must review all wheel spiders in both wheels, it's a work for experts, go to your **GAS GAS** official service.

Is the chain and its tightness correct? If it's necessary, tighten the chain. If you need to do this too frequently, or if you see any symptoms of wear in front sprocket, rear sprocket, chain guides or chain protector, you must go to your official **GAS GAS** service, this affects your safety.

Is the seat properly fixed? This is a point of vital importance for your safety, if you have some doubt about this fixation you must go to your **GAS GAS** official service.

Is there some element with risk to fly-off when the motorcycle is running? Fenders, side covers, fuel tank, coveralls, etc. You can fix provisionally the parts or disassemble these parts, in order to go to your **GAS GAS** official service for repair. This problem can affect your safety**.**

Do you have to purge the air of the front suspension? In case that your model requires it you must do it properly, otherwise it may be a problem for your safety and for the duration of your front suspension.

Daily inspection

Is there any leakage? Visually check the possible existence of leaks, assess them in function of their location, amount, or escaped product (attention to the fire danger). Always go as soon as possible to your **GAS GAS** official service.

DANGER

These controls are really very easy to make, it is a matter of habit, the rider knows the use that has undergone the motorcycle in its last use and knows where this control should sharpen. The respect of this set of controls means greater safety for you and, sure, a cheaper and better maintenance for your **GAS GAS**.

Cleaning

To clean your **GAS GAS** follow these steps:

1. Put a plug in the exhaust system to prevent water entry.
2. Cover with a piece of duct tape the lock anti-theft steering lock.
3. Remove mud and dirt with a jet of water at low pressure.
4. Clean especially soiled areas with a special cleaner for motorcycles.
5. Rinse with a jet of water at low pressure.
6. Allow the bike to drain naturally.
7. Take a short ride with the motorcycle until the engine reaches its operating temperature.
8. Lubricate the chain and other items that they need to (see chapter 36 of maintenance).

WARNING

Never clean the vehicle using a high-pressure equipment. Avoid directly affect the multifunction gauge, coil, pipe plug, carburetor, switches, levers or any other electrical element.

Storage

When you need to store the bike for a period of time must:

- Clean the bike thoroughly.
- Start the engine for about 5 minutes to warm the transmission oil and then drain it (see maintenance).
- Put new transmission oil.
- Empty the fuel tank (if left too long gasoline deteriorates).
- Lubricate the chain and all cables.
- Spray oil on all unpainted metal surfaces to prevent oxidation, avoid oil on the brakes and rubber parts.
- Tie a plastic bag the exhaust pipe to prevent corrosion.
- Place the motorcycle so that the wheels do not touch the ground (if you can not, put cardboard under the wheels).
- Cover the motorcycle to keep dust and dirt.

To put into use after storage:

- Remove the plastic bag from the exhaust pipe.
- Tighten the spark plug.
- Fill the fuel tank.
- Check the points of the "Daily Inspection"
- General lubrication.

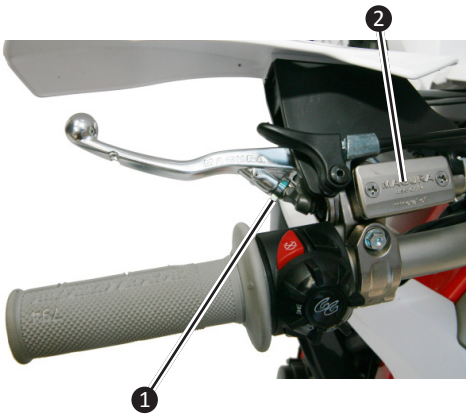
SERVICE AND MAINTENANCE

Maintenance table

The maintenance requirements exposed in this table are simple and are required for a good maintenance of your motorcycle.

Element	Check / Inspect	Adjust	Replace / Change	Clean	Grease / Lubricate
1.-Clutch	10 hours	20 hours	When necessary	-	10 hours
2.-Clutch discs	30 hours	When necessary	When necessary	-	-
3.-Throttle cable	10 hours	10 hours	-	-	10 hours
4.-Spark plug	-	-	20 hours	10 hours	-
5.-Air filter	0,5 hours	-	When damaged	When necessary	-
6.-Carburetor	20 hours	When necessary	-	-	-
7.-Transmission oil	-	-	20 hours	-	-
8.-Piston and ring	-	-	20 hours	-	-
9.-Cylinder head, Cylinder, ex. valve	-	-	When necessary	20 hours	-
10.-Exhaust system	-	-	When necessary	-	-
11.-Silencer fiber	-	20 hours	30 hours	-	-
12.-Connecting rod and bearings	20 hours	-	40 hours	-	-
13.-Kick-starter and gear shift pedal	-	-	-	-	10 hours
14.-Rubber joint exhaust / silencer	10 hours	-	When necessary	-	-
15.-Motor bearings	20 hours	-	When necessary	-	-
16.-Coolant	-	-	30 hours	-	-
17.-Radiator hose and connections	10 hours	-	40 hours	-	-
18.-Brakes adjustment	20 hours	-	When necessary	-	-
19.-Brake wear	30 hours	-	When necessary	-	-
20.-Brake fluid	-	-	Every 2 years	-	-
21.-Brake fluid level	10 hours	20 hours	When necessary		
22.-Pump piston and dust cover	-	-	Every 2 years	-	-
23.-Caliper piston and dust cover	-	-	Every 2 years	-	-
24.-Brake hoses	-	-	Every 4 years	-	-
25.-Front wheel and spokes	-	10 hours	When necessary	-	-
26.-Rear wheel and spokes	-	10 hours	When necessary	-	-
27.-Chain guide	-	-	-	-	20 hours
28.-Chain guide wear	20 hours	-	-	-	-
29.-Chain guide shoe	20 hours	-	When necessary	-	-
30.-Front suspension	10 hours	When necessary	When necessary	When necessary	-
31.-Front suspension oil	-	-	30 hours	-	-
32.-Bolts, nuts and fasteners	10 hours	20 hours	When necessary	-	-
33.-Gas tube	20 hours	-	When necessary	-	-
34.-Fuel system	-	-	-	When necessary	-
35.-Steering head adjustment	10 hours	-	-	-	-
36.-General lubrication	-	-	-	-	20 hours
37.-Steering bearing	-	-	-	-	30 hours
38.-Wheel bearing	30 hours	-	When necessary	-	-
39.-Swingarm and linkage	20 hours	-	When necessary	-	20 hours
40.-Rear suspension	Every 2 years	When necessary	When necessary	-	-
41.-Chain	-	10 hours	When necessary	-	-
42.-Tires	5 hours	-	When necessary	-	-

Maintenance



1.-CLUTCH

The clutch lever can be adjusted for your comfort.

To adjust it, act as described:

- With the wheel (1) adjust the distance between the lever and the handle-bar.

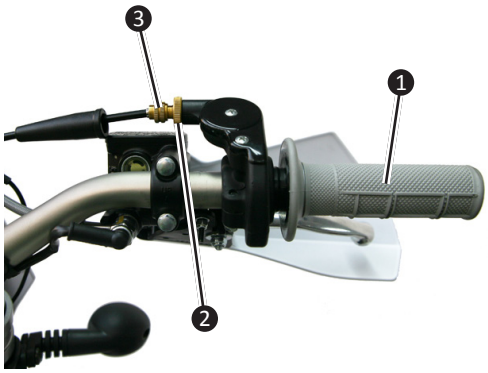
The assembly is designed so that the lever position can't change when you ride.

DANGER

- This model uses mineral oil GRO Global Ultra-5 for the clutch hydraulic circuit.
- Don't refill the tank (2) with brake fluid.

2.-CLUTCH DISCS

For this check, adjustment, or change, you must go to your **GAS GAS** official service.



3.-THROTTLE CABLE

- Check that the throttle (1) rotates smoothly.
- Check that the throttle has a dead play of 2~3 mm.
- If the dead play is not correct, loose the lock nut (2) at the end of the throttle cable, rotate de adjuster (3) until its correct.
- Tighten the lock nut.
- If the dead play cannot be established by adjusting the cable, remove the end cable protector in the carburetor, adjust with a tensor, tighten lock nut and reinstall protector.

4.-SPARK PLUG

The standard spark plug (Denso W24ESR-U o NGK BR8EG) must be tightened to 25 Nm.

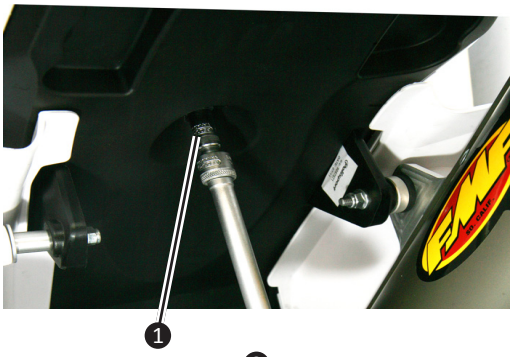
The spark plug must be removed periodically to check electrodes gap (0,7~0,8 mm). If the spark plug contains oil or cinder, clean with a wire brush or similar. Measure the electrodes gap with a gauge and adjust, if it is incorrect, by bending the outer electrode. If spark plug electrodes are rusty, damaged, or isolation is broken, change spark plug.

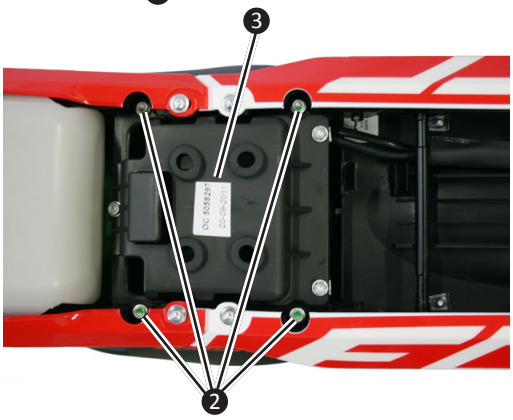
NOTE: Inspect every 10 hours and replace every 20 hours.

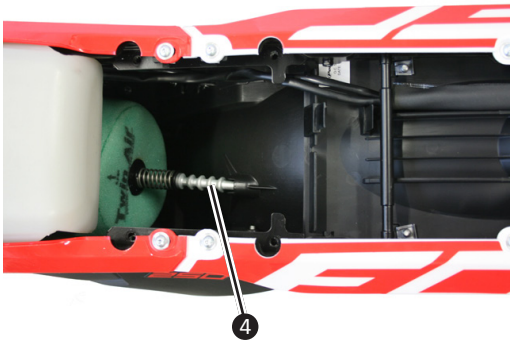
To find the correct temperature which must operate the spark plug, remove it and examine ceramic isolator around the electrode. If ceramic has a light brown color, spark plug temperature harmonizes with the engine. If ceramic is white, spark plug must be replaced by a colder one. If it is black must be replaced by a hotter one.

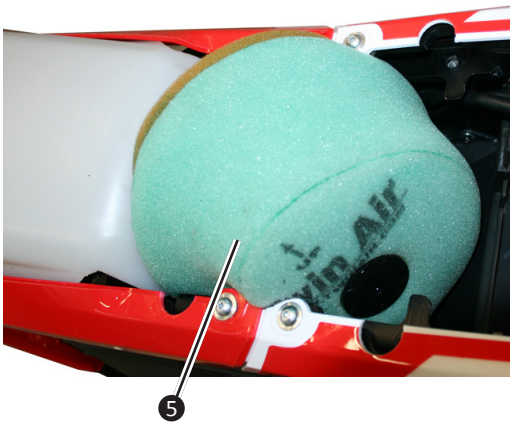
NOTE: If the engine performance drops, replace the spark plug to regain engine performance.

5.-AIR FILTER









Removing the filter

To access the air filter must remove the seat and the battery box.

1. Loosen the screw of the seat (1).
2. Remove the seat by pulling it back.
3. Loosen the 4 fixing screws of the battery box (2).
4. Remove the battery box (3).

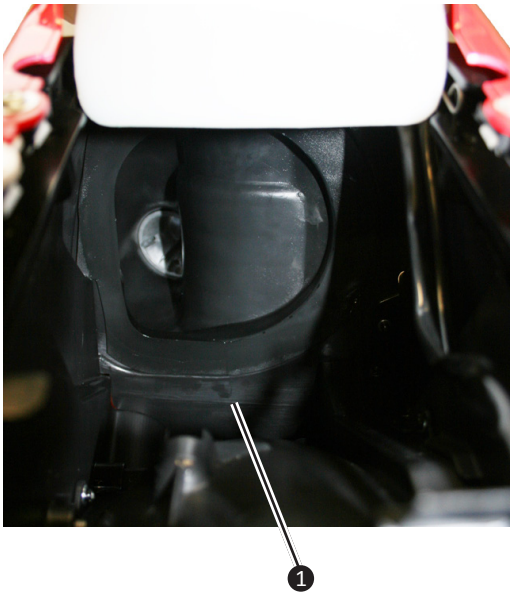
DANGER

Do not remove the battery box from the motorcycle under any circumstances. It is a structural part of the motorcycle.

GAS GAS will be not responsible for any damage if this item is removed.

5. Remove the filter fixing (4).
6. Remove the air filter (5).

Maintenance



Air filter cleaning

1. Clean inside the filter box with a damp cloth.
2. Remove the cage (2) of the air filter (3).
3. Clean the filter using a soft brush in a bath of filter cleaning liquid.
4. Squeeze it and dry with a clean cloth. Do not blow the filter as it may be damaged.
5. Install the filter on the cage and cover the lip of the filter (4) with a thick layer of grease to ensure the sealing and prevent the entry of dirt.

DANGER

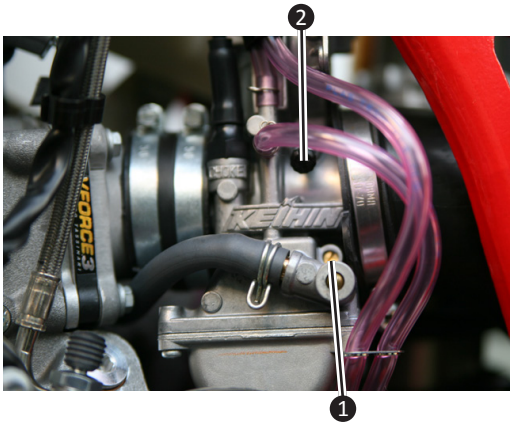
A clogged air filter allows the entry of dirt into the engine causing excessive wear and damage.

Inspect by all means, before and after each race or practice session. Clean if necessary.

Clean the filter in a ventilated area and make sure that no sparks or flames near the workplace (includes a powerful light source). Do not use gasoline to clean the filter as this could cause an explosion.

WARNING

- Inspect filter for damage. If damaged, replace or otherwise dirt into the carburetor.
- Lubricate all fittings and screws of the air filter and entrances.



6.-CARBURETOR

Idling adjustment

It is carried out by adjusting the air screw (1) and the idling screw (2).

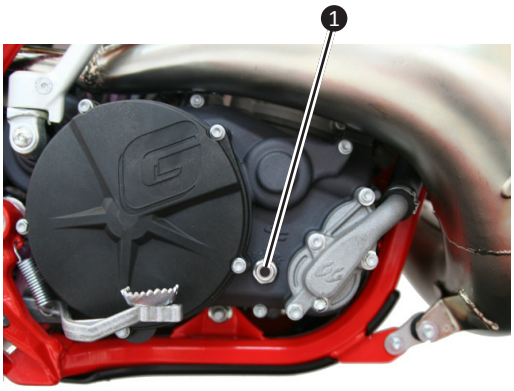
1. Turn the air screw clockwise until you reach the top of its travel and open 1 turn.
2. Warm up the engine. Turn the free closing screw to adjust the idling speed. If you don't have references turn screw until the engine stops.
3. Tighten slightly the idle screw.
4. Accelerate and slow down a few times to ensure that the idling does not change. Readjust if necessary.

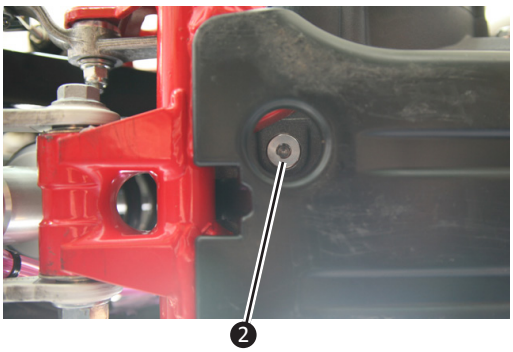
DANGER

Driving with damaged throttle cable can be dangerous.

Check that the cable from the starter remains in the lever, a minimum clearance of 3 mm.

With the engine idling, turn the handlebar to both sides. If the handlebar movement changes the idle and acceleration, the throttle cable is not properly adjusted or is in poor condition. Be sure to correct this before riding.





7.-TRANSMISSION OIL

PFor properly function of transmission and clutch, maintain the optimum transmission oil and change it periodically. A bike with insufficient transmission oil, damaged or polluted oil, can accelerate wear and damages in transmission.

Checking the oil level

1. If the bike has been used wait a few minutes.
2. Check the oil level through the level indicator in the bottom right of the engine (1).
3. The oil level must be between the maximum and minimum.
4. If the level is too high, remove the excess through the draining plug (2).
5. If the level is too low, add the necessary oil amount through the plug (3). Use the same type and brand of oil that the engine had already.

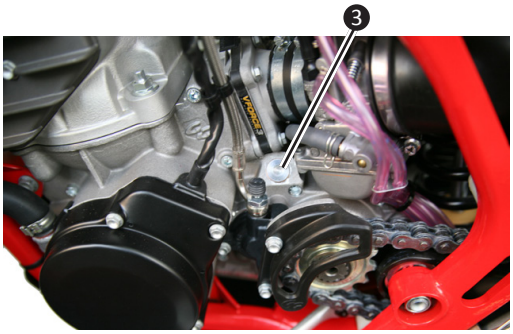
Transmission oil

Recommended oiol: GRO Gear Trans 10W30

Capacity: 900 cc

NOTE: To get the right engine oil temperature and accurately oil level measure, the engine should have been cooled down completely, and must then be heated again for a few minutes to the normal operating temperature.

Maintenance



Transmission oil change

El aceite de transmisión debe cambiarse periódicamente para asegurar la vida del motor.

1. Heat the engine for 5 minutes, in order to lift all sediments.
2. Stop the engine and put a container under the motorcycle.
3. Remove the emptying screw (see "Checking the oil level") and put the bike in the use position to allow the complete oil drain.
4. Remove the filler plug to ensure a better draining.
5. Clean perfectly the drain plug magnet.
6. Tighten the oil emptying screw with its o ring, at 20 Nm.
7. Take off the filling plug (see "Checking the oil level") and put new transmission oil.
8. Check the oil level, after powering the kick-starter for 3 or 4 times.
9. Screw the oil filling plug.

8.-PISTON AND RING

For this check, adjustment, or change, you must go to your **GAS GAS** official service.

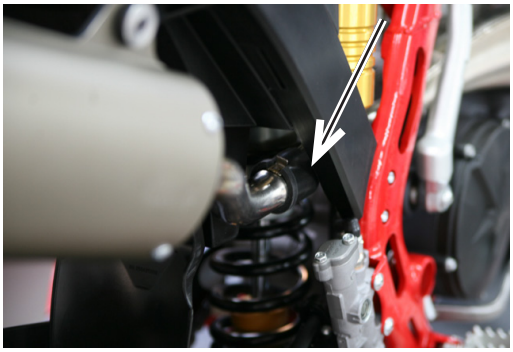
9.-CYLINDER HEAD, CYLINDER, EX. VALVE

For this check, adjustment, or change, you must go to your **GAS GAS** official service.

10.-EXHAUST SYSTEM

Exhaust and muffler reduces noise and lead gases away from the rider.

If the exhaust is damaged oxidized, beaten, or cracking, change it to a new one. Change the silencer fiber if the noise is becoming too high or the engine performance decreases.

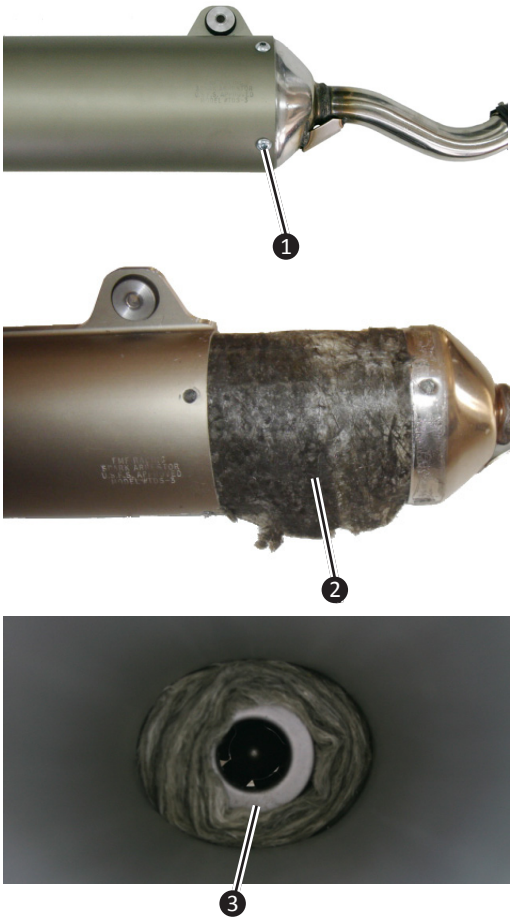


Exhaust cleaning

For the cleaning of the exhaust pipe you must go to your **GAS GAS** official service.

Muffler change

1. Remove the bolt (1) of the left fairing.
2. Remove the bolt (2) of the muffler (3) and take out by pulling backwards.
3. Disengage the muffler (arrow) .
4. Change the muffler and reassembly all parts.



11.-MUFFLEER FIBER

The Muffler on your **GAS GAS** is a silencer of absorption. The absorbent element is the silencer fiber. If you notice an increase in exhaust noise should proceed to change the Muffler fiber.

Muffler fiber change

Once dismantled the silencer, (see "Muffler change"). Remove the 4 bolts (1).

1. Get out the muffler front end.
2. Change the muffler fiber (2) by wrapping it in the inner tube.
3. Insert the fiber around the exhaust pipe (3) in the rear of the silencer.
4. Reassembly all parts.

12.-CONNECTING ROD AND BEARINGS

For this check, adjustment, or change, you must go to your **GAS GAS** official service.

13.-KICK-STARTER AND GEAR SHIFT PEDAL

Lubricate articulated and mobile parts with oil or grease. Lubrication excess can cause slip of your boots on the pedals.

14.-RUBBER JOINT EXHAUST/SILENCER

For this check, adjustment, or change, you must go to your **GAS GAS** official service.

15.-MOTOR BEARINGS

For this check, adjustment, or change, you must go to your **GAS GAS** official service.

16.-COOLANT

The coolant absorbs excess heat from the engine and transfers it to the air through the radiator. If the liquid level drops, the engine overheats and may suffer severe damage. Check the coolant level each day before driving your **GAS GAS**.

To protect the aluminum parts of the cooling system (engine and radiator) from oxidation and corrosion chemical inhibitors are used in the coolant essence. If an anticorrosive coolants ir not used, after some time, the radiator will rust. This will block the cooling tubes.

NOTE: Initially from the factory a permanent type antifreeze is used. It's green, containing 30% of ethylene glycol and has a freezing point of -18°C.

DANGER

The liquid chemicals are harmful to the human body. Follow the manufacturer's instructions.

WARNING

Using incorrect coolant solutions may damage the engine and cooling system.

Use coolant containing corrosion inhibitors made specifically for aluminum engines and radiators in accordance with the manufacturer's instructions.

Coolant level

1. Put the bike in position for use.
2. Unscrew the radiator cap (1) counterclockwise and wait a few seconds for the vapors to evacuate. Then push and turn in the same direction to finish pulling the cap.
3. Check the coolant level. Check the coolant level. The liquid should be just below the rubber of the cap.
4. If the fluid level is low, add the required amount through the filler opening.

Recommended coolant: GRO GCC 30% Long time. (-18°C)

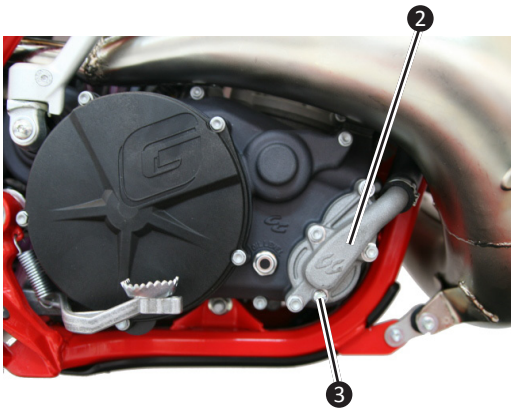
Coolant change

It must be changed periodically to ensure long engine life.

1. Allow the engine to cool completely.
2. Put the bike in position for use.
3. Remove the radiator cap.
4. Place a pan under drain plug (3) which is located at the bottom of the top of the water pump (2). Drain the radiator fluid and engine unscrewing it.
5. Fill the radiator to the edge of the cap and put the radiator cap.
6. Check the cooling system losses.
7. Start the engine, warm and ultimately stop it.
8. Check the coolant level when the engine is cool. Add if necessary.

DANGER

To avoid burns do not remove the radiator cap or try to change the coolant when the engine is hot. Wait until it cools.



DANGER

Coolant on tires will make them slippery and can cause an accident. Immediately clean up any coolant that might fall into the chassis, engine or wheels.

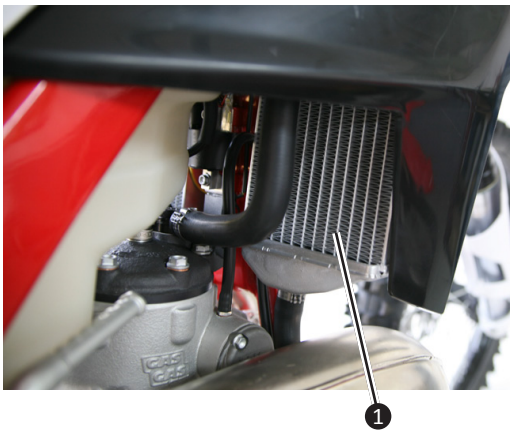
Inspect the old coolant. If you see white spots in the liquid means that the aluminum parts are corroded. If the fluid is brown is that steel or iron parts of the system are oxidized. In both cases clean the system.

WARNING

Tighten the water pump drain bolt to 9 Nm. Replace seals with new ones.

Check for any damage or loss of the cooling system.

Cold countries must adjust their antifreeze capacity with a minimum temperature range of -5°C.



17.-RADIATOR HOSE AND CONNECTIONS

Radiator hoses

Check for cuts or damages on the radiator hoses and connections losses.

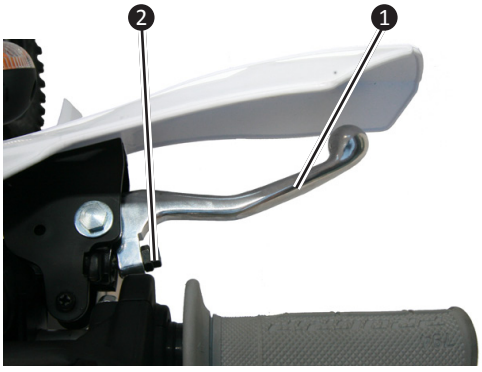
Radiator

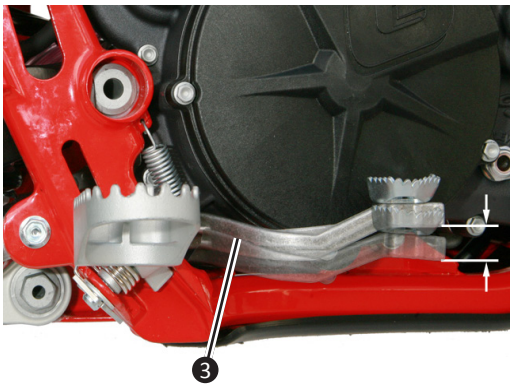
Check if radiator fins (1) are blocked (insects or mud). For clearing obstructions use a low pressure water jet.

WARNING

Using a high pressure water jet can damage the radiator fins and detract its effectiveness.

Do not obstruct or deflect air inlet to radiator, installing unauthorized accessories. Interference in the radiator can overheat and damage your engine





18.-BRAKES ADJUSTMENT

Front brake lever

Adjust the brake lever (1) until you feel comfortable. . To adjust, loosen the nut (2). After adjust, tight it correctly. Check the brake response is correct.

Rear brake pedal

When the brake pedal (3) is in resting position you must have 10 mm of clearance.

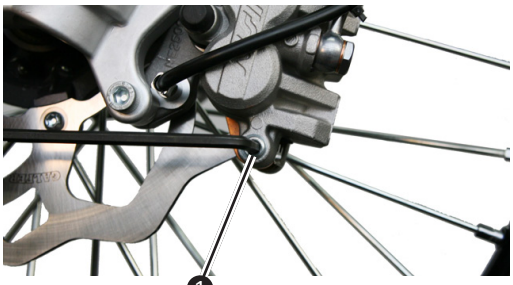
Check if the brake responds correctly and there is no friction.

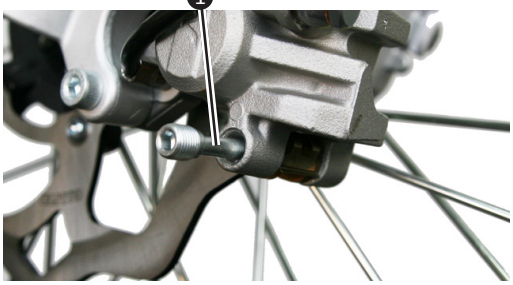
DANGER

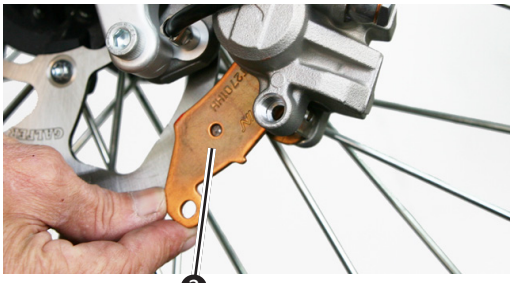
If the brake lever or pedal have spongy touch, is possible that there are air bubbles in the pump or in brake system, or some component of the brake system is out of order.

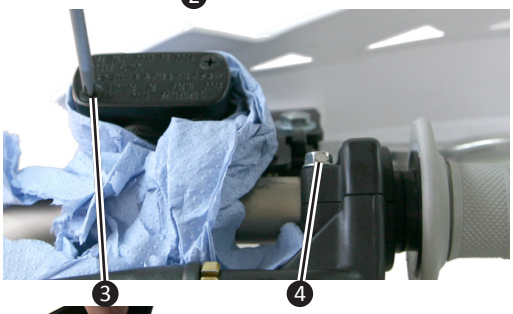
Is dangerous to ride in these terms and conditions, check the brake system immediately, so we recommend you go to your **GAS GAS** official service.

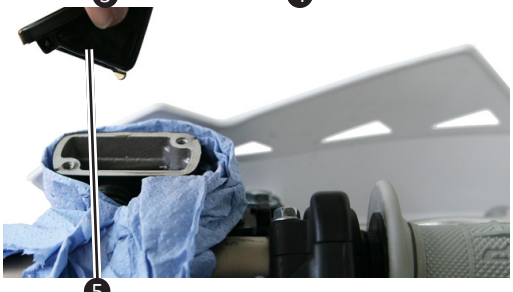
Maintenance











19.-BRAKE WEAR

If the thickness of the front or rear brake pads is less than 1 mm, shall be to complete change of the affected pads set.

DANGER

Verify that the thickness of the brake discs is at least 3 mm in the front and 3,5 mm in the rear.

WARNING

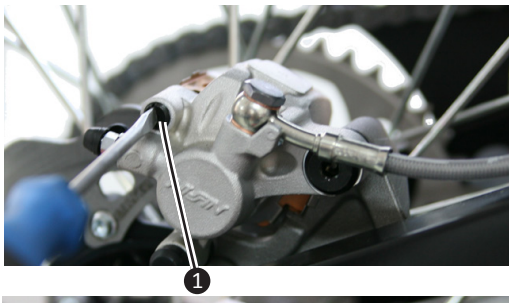
For this change, we recommend strongly that you go to your **GAS GAS** official service who, in addition, will verify a possible wear and damages on your brake discs.

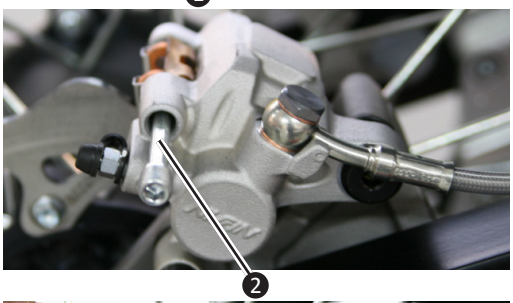
Changing the front brake pads

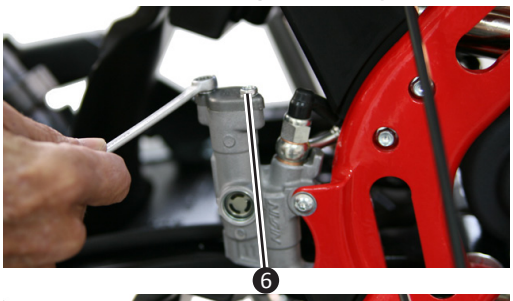
To change the front pads follow these steps:

1. Loosen the pin (1) and remove it.
2. Remove the pads (2).
3. Put a paper around the brake fluid reservoir to prevent falls. Open the cover by loosening the screws (3). **NOTE:** For better access is recommended to loosen the screw (4) and turn the throttle assembly.
4. Remove the cover (5) trying not to get brake fluid out of the tank.
5. Retract the two pistons in the caliper being careful not to damage them.
6. Install the new pads.
7. Place the pin.
8. Place the tank cover.
9. Operate the brake lever several times to get the right feeling.

Maintenance







Changing the rear brake pads

To change the rear pads follow these steps:

1. Remove the pin protector (1).
2. Loosen and remove the pin (2).
3. Remove the pads (3).
4. Keep the metal plate (4) and the fiber plate (5) if the new pads does not have them.
5. Loosen the screws (6) and remove the lid of the brake fluid.
6. Put a paper around the brake fluid reservoir to prevent falls.
7. Retract the caliper piston taking care not to damage it.
8. Place the pin and protector.
9. Place the tank cover.
10. Operate the brake pedal several times to get the right feeling.

20.-BRAKE FLUID

Inspect the brake fluid and change it periodically. It should also be changed if it becomes contaminated with dirt or water.

Recommended fluid: GRO Brake Fluid DOT-4.

DANGER

Do not mix different types of brake fluid. The liquid used to fill or renew your circuit must meet the standard specified in the fluid reservoir each circuit. Therefore in the rear brake must use DOT 4.

No specification should never change, always respect the DOT 4 specification, it is important that the brake fluid is of the same brand, but it must be of the same specification.

Do not use fluid from a container that is not sealed (unopened) of origin. Never at all, use brake fluid container or unsealed obviously already used brake fluid.

21.-BRAKE FLUID LEVEL

The front (1) and rear (2) fluid reservoirs must be filled to at least half. If necessary, refill.

WARNING

Do not pour brake fluid on painted surfaces.

DANGER

Check for fluid leakage through the joints.

Check possible damage to the brake hoses.

22.-PUMP PISTON AND DUST COVER (FRONT AND REAR)

For this check, adjustment, or change, you must go to your **GAS GAS** official service.

23.-CALIPER PISTON AND DUST COVER (ALL CALIPERS)

For this check, adjustment, or change, you must go to your **GAS GAS** official service.

24.-BRAKE HOSES

For this check, adjustment, or change, you must go to your **GAS GAS** official service.

25 AND 26.-WHEELS AND SPOKES

The spokes should be tightened evenly and can not have play, the rim would be off-centered and other spokes would suffer and may break.

Centering the wheel

Put a dial on the side of the rim (1) and spin the wheel to measure the axial centering.

Turn the dial on the inside of the circumference of the wheel (2), spin the wheel and the difference between the highest amount and the lowest is the centering.

If you are slightly offset can be corrected by tightening or loosening some spokes with the spoke wrench (3). If the rim is bent or curved must be replaced.

NOTE: A welded area on the rim may show an excessive offset. Ignore when measuring the centering

WARNING

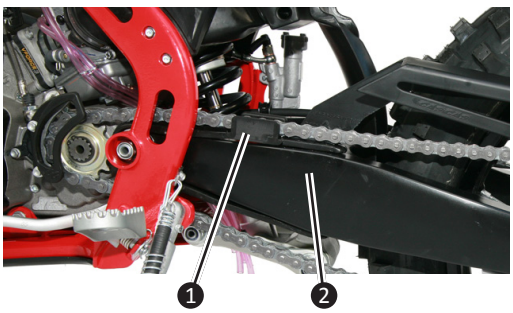
The wheels and spokes interventions require action by a specialist, so we recommend that you to consult your **GAS GAS** official service

27.-CHAIN GUIDE

Lubricate the chain guide (1) with the same product used for the chain lubrication.

28.-CHAIN GUIDE WEAR

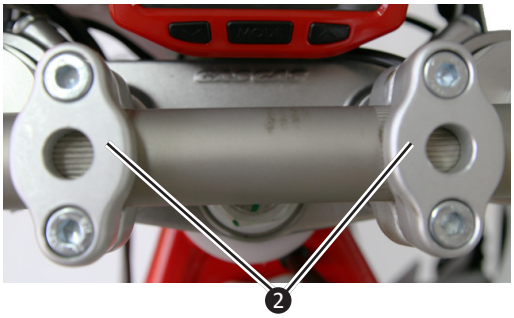
Check the wear of chain guide inner faces, through which passes the chain, depending of its wear should be replaced.

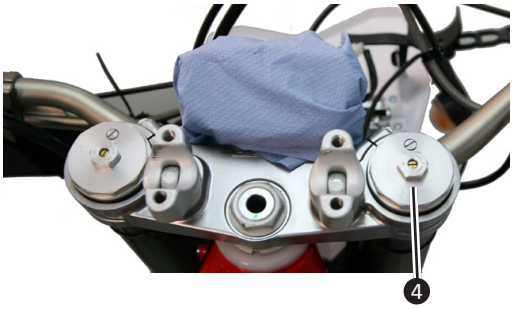


29.-CHAIN GUIDE SHOE

Visually check the upper and lower part of the chain guide shoe (1), on the swingarm (2). If it is worn out or damaged, replace it.

Lubricate the chain guide shoe with the same product used for the chain lubrication.





30.-FRONT SUSPENSION

Front suspension air purge

To purge air from the front suspension follow these steps:

1. Place the bike on a stand or support. The front fork must be fully extended.
2. Remove purge bolts (1).
3. When purging is complete, replace the purge bolts.

Changing the fork spring

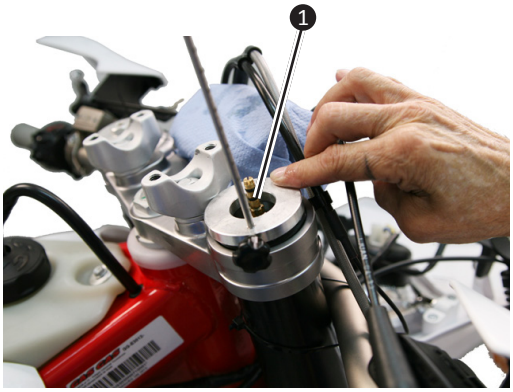
In case you need to change the front fork spring, follow these steps:

4. Place the bike on a stand or support. The front fork must be fully extended.
5. Remove the axle and the front wheel.
6. Remove the handlebar by loosening the handlebar clamps (2) and removing the upper flanges.
7. Release the hooks (3) of the front mask.
8. Protect the multifunction gauge with a paper.
9. Loosen the cap of the fork (4).
10. Separate hydraulic rod from the cap (5).
11. Remove the spring (6).

Replace the spring and follow the steps in reverse order to mount it.

WARNING

Try that at any time the brake and clutch fluid tanks are left in vertical position, otherwise, you may need to re-bleed both systems.



31.-FRONT SUSPENSION OIL

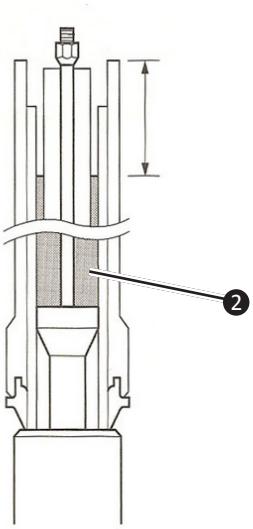
Adjust the oil level

To adjust the oil level you must first remove the spring, follow the steps described in "Changing the fork spring" to do so.

Once removed the spring compress the fork completely and gently push the hydraulic rod (1) down until it stops.

Adjust the desired oil level and reassemble the whole.

The oil level is always adjusted from the top of the fork legs as shown in the diagram (2).



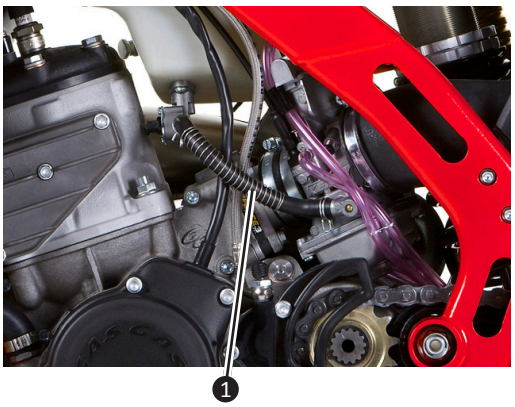
Standard oil level: 130 mm

Recommended oil: FUCHS TITAN 1091 SAF

Capacity: 612 cc

32.-BOLTS, NUTS AND FASTENERS

Every day before riding the bike, you should check that all bolts and nuts are tightened. Also check that the other fasteners are in place and in good condition.



33.-GAS TUBE

Given the observation of a necking (narrowing) of the tube (1) anywhere (usually in the gasoline inlet in the carburetor or the outlet of the fuel tap), symptoms of cracking or crazing surface, it is imperative to change the gas tube.

DANGER

Riding with a damaged gas tube, or simply starting the engine, can cause a fire and subsequent crash (and related injuries)

Always use the original gas tube, your **GAS GAS** official service will provide it to you.

34.-FUEL SYSTEM

Check the status of: fuel tank rubber plug, fuel tank plug, the fuel tank respirator and the fuel tank.

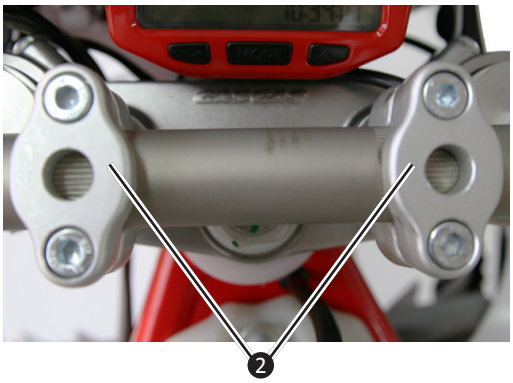
35.-STEERING HEAD ADJUSTMENT

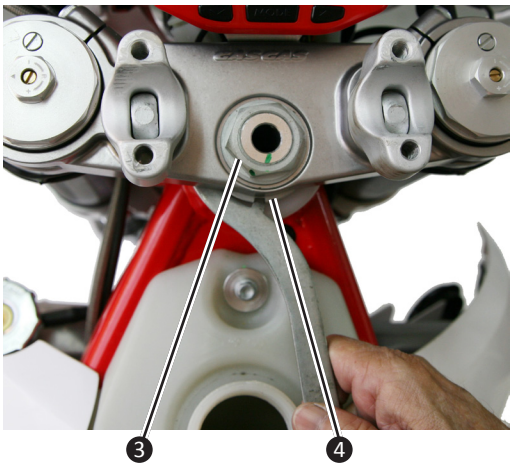
The steering should always be kept adjusted so that the turn freely and without play.

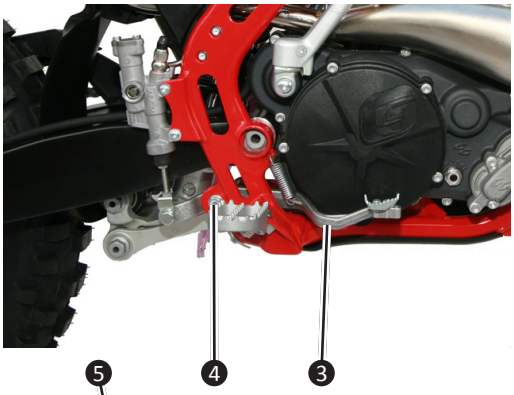
To check the setting of direction, lift the bike off the ground, using a stand under the chassis. Move the handlebar gently to each side; if it continues to move the handle by itself, means that the steering is not too tight. Squatting in front of the bike, grasp the bottom of the front fork (on axis), push and pull the fork (1). If there is play, the steering is too loose.

If you have to adjust the steering:

1. Stabilize the bike with a stand or a support.
2. Keep the front wheel off the ground.
3. Remove the handlebar by loosening the handlebar clamps (2) and removing the upper flanges.
4. Loosen the nut on the steering axle (3).
5. Turn the adjusting nut of the steering (4) with the special key to get a proper fit.
6. Tighten the nut on the steering shaft.
7. Double check the steering and adjust again if necessary.
8. Install the removed parts.







36.-GENERAL LUBRICATION

Lubricate the parts shown periodically or when the vehicle is wet, especially after using high pressure water. Before lubricating each part, clean rusty spots with rust remover and clean any grease, oil or dirt.

General lubrication

- Clutch lever (1).
- Front brake lever (2).
- Rear brake pedal (3).
- Rear brake pedal bearing (4).
- Gear shift pedal (5).
- Use a spray to lubricate with pressure.
- Use grease inside the throttle cable.

Chain lubrication

It is necessary after driving on wet ground when the chain looks dry.

The chain is an o-ring chain, therefore a specific lubricant should be used for this type of chains. Your **GAS GAS** official service will be pleasured to provide it.

37.-STEERING BEARINGS

For this check, adjustment, or change, you must go to your **GAS GAS** official service.

38.-WHEEL BEARING

For this check, adjustment, or change, you must go to your **GAS GAS** official service.

39.-SWINGARM AND LINKAGE

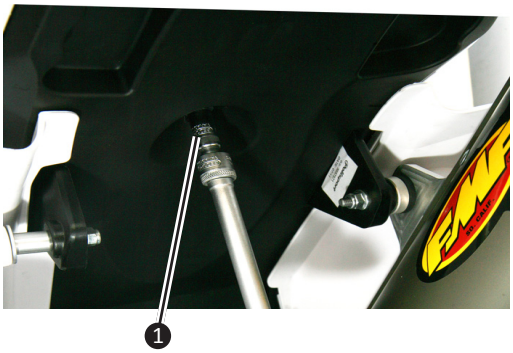
For this check, adjustment, or change, you must go to your **GAS GAS** official service.

40.-REAR SUSPENSION

Rear shock oil change

For this check, adjustment, or change, you must go to your **GAS GAS** official service.

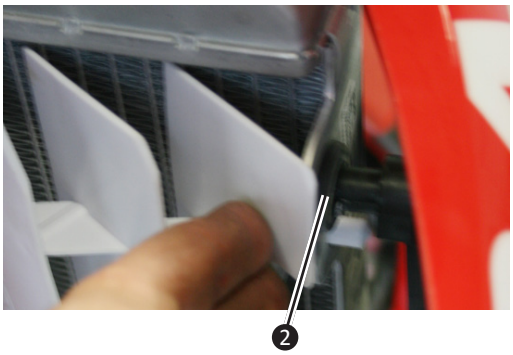
Maintenance



Removing the rear shock

To remove the rear shock from the frame follow these steps:

1. Stabilize the bike with a stand or a support.
2. Keep the rear wheel off the ground.
3. Loosen the seat clamping screw (1) and remove it by pulling it back.
4. Remove the silencer (see "Silencer change" in point 10).



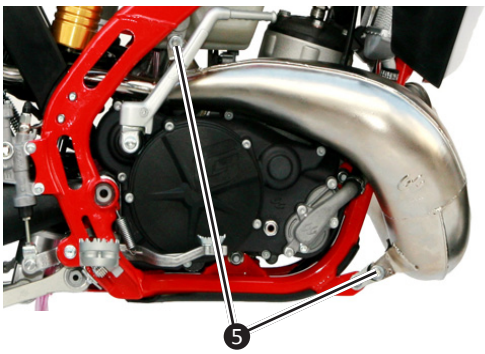
5. Disengage the side covers of their hooves on the radiator (2).

6. Loosen the screw of the fuel tank (3) and the side fairings screws (4).

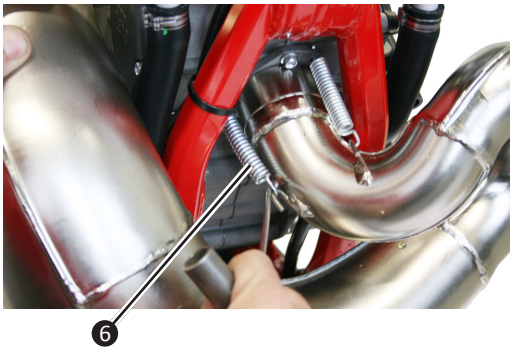
DANGER

Check that the fuel tap is closed and the gas tube is disconnected prior to removing the fuel tank from the frame.

7. Remove the fuel tank of the frame by pulling it upward.



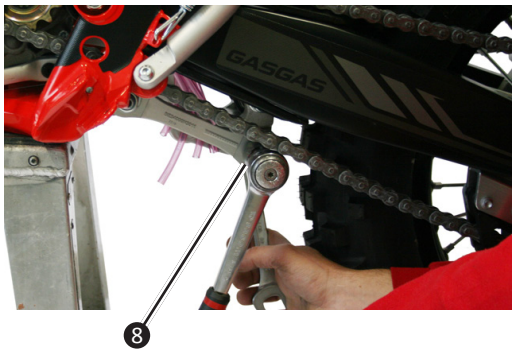
8. Loosen the screws holding the exhaust pipe (5).



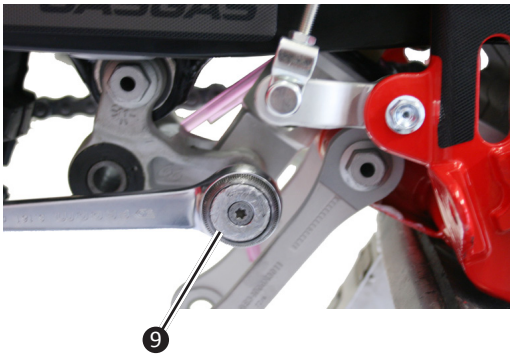
9. With the help of a spring puller, remove the springs from the the exhaust inlet (6).
10. Remove the exhaust pipe by pulling it forward.

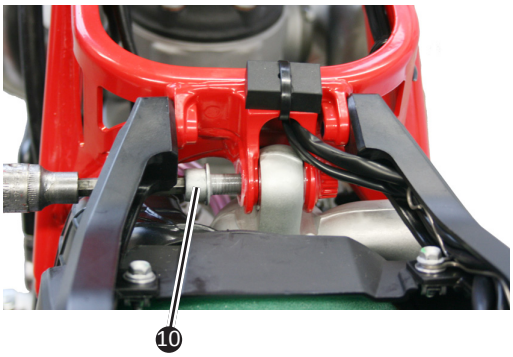
Maintenance

11. Pass a rope or a strap for the swingarm and subframe (7) to prevent the wheel from falling once the shock is removed.



12. Loosen the link suspension system (8) to have access to and remove the screw connection between the connecting rod and shock (9).





13. Loosen and remove the shock top mounting screw (10).

14. To remove the shock from the frame, move it toward the bottom in it's housing to then be able to rotate it and extract it through the fuel tank hole (11).

To reinstall the shock on the motorcycle, follow the same steps in reverse order..

41.-CHAIN

The secondary transmission (chain, sprockets, guide, etc.) supports your motorcycle hard work. It is also one of the most important assemblies for your SAFETY.

It requires constant maintenance and obviously, correct.

Chain tension

1. Motorcycle without load and the sidestand position: It must be a space of 35 ~ 60 mm between the chain and the swingarm at the rear of the guide. With the fingers and without excessive force, you can check it.
2. Loosen the axle nut (1).
3. Find the point of maximum tension of the chain.
4. Through the nuts (2) of the swingarm, match, through the notches in the swingarm and the lugs on the adjusters, the alignment of the chain at both sides of the swingarm.
5. Tighten the nuts (2).
6. Tighten the nut (1).
7. Check back at the point of maximum tension and readjust if necessary.

The chain tension is a constant check. You must check the state of the string itself, the guide, the front and rear sprockets too.

Usually, when a chain is too used, stretched more than 2%, should be replaced. Usually it is the right time to change, guide, front and rear sprockets. It is for practical reasons, economic and security. A chain in the limit of its life has partially worn teeth rear sprocket, guide, etc. If you mount a new chain and other components are not changed, its life will be shortened by 40% and already deteriorated elements like the front and rear sprocket will end their life quickly. In the medium and long term the most economic is to change the complete transmission kit at each chain change. Your **GAS GAS** official service will provide it.

Lubrication: The chain is the type with o-rings, this requires a special lubricant, use the same lubricant in the guide and the chain guide shoe, front and rear sprockets.

NOTE: We recommend you always have the chain properly lubricated, those chains that are dried, lubricated, left to dry, and so on., Shorten its life and the life of the components that surrounds it a major way.

42.-TIRES

Check that the tires are not worn, cracked or damaged. Verify that are set into the correct pressure.

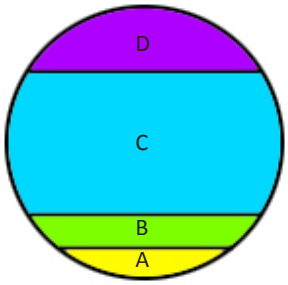
Recommended pressure: 1,0 bar

ADJUSTMENTS

Introduction

This chapter is for users with high mechanical knowledge and experience. Otherwise these adjustments, must be carrie by your **GAS GAS** official service.

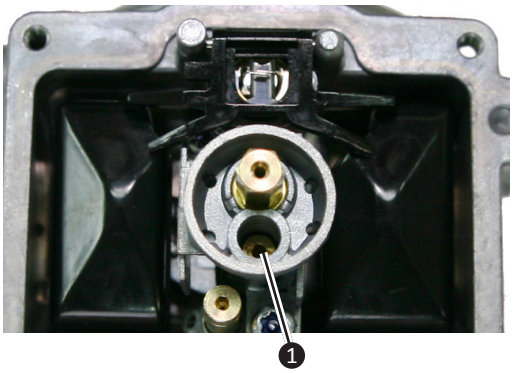
Carburetor setting

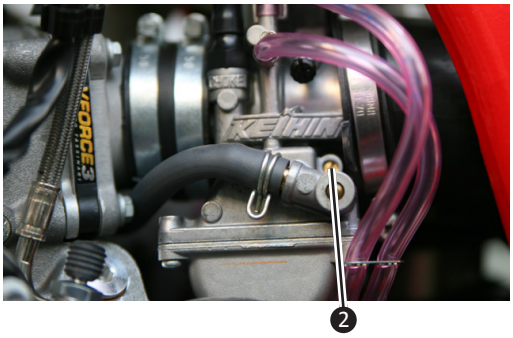


THROTTLE VALVE OPENING INFLUENCES

The elements of the carburetor that alters the composition of the mixture based on the opening of the throttle valve (load) depends on the openness of it:

- Zone A: 0 to ⅛ load (throttle opening). Its regulation depends on the idle screw, the mixture screw and the idle jet (low or minimal).
- Zone B: from ⅛ to ¼ load. Influenced primarily by the height of the slide bezel.
- Zone C: ¼ to ¾ load. Responsible is the jet needle..
- Zone D: ¾ full load. Responsible is the main jet.

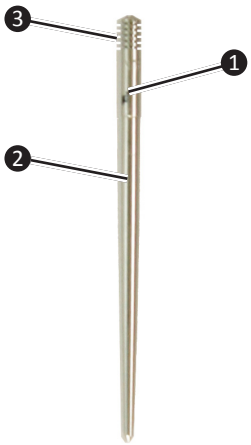




IDLE JET AND MIXTURE SCREW

Controls the mixture from the closed position to ⅛ of charge, but has little effect on total openness. To adjust the mixture, the mixture screw can be rotated to change the air flow, or change the idle jet so it lets pass more or less fuel. Start by turning the air screw. Inward screwing enriches the mixture. The mixture screw must rotate from a position of fully closed. Make changes by half-turn increments. If turning the screw 1 to 2.5 turns do not get the desired result, change a step in the idle jet (1) and tune the mixture screw (2).

Carburetor setting

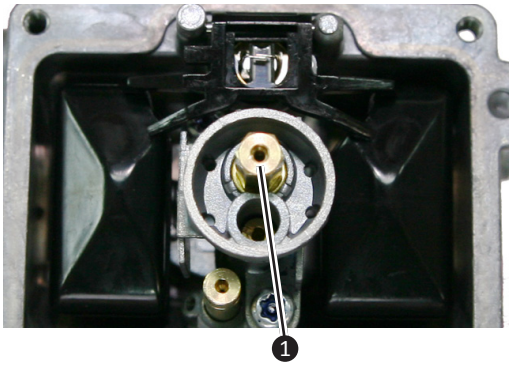


NEEDLE

The needle and the main jet together have an effect ranging from 25% to 75% load. The needle moves into the main jet, when the needle narrows, changes from cylindrical (1) to conical (2), its position determines the amount of fuel passing.

At the top of the needle are five slots (3) which sets the clip. This clip positions the needle on the throttle valve and determines the relative position of the main jet (that's why the mix is enriched). Moving the clip up leans the mixture. Change te clip position on step at a time (the cylindrical part of the needle affects the response to small throttle valve openings).

The position of the clip is set counting from the top position.



MAIN JET

Has a greater effect from 75% to 100% load. The number stamped on the bottom of the jet (1) indicates the flow of fuel passing through the hole. A higher number corresponds to a larger hole, more fuel passes.

NOTE: Never use "jet gauge sets" that are in the market. Its use is incorrect. Always use new jets without manipulating (sealed in their bags).

DANGER

Gasoline is extremely flammable and can be explosive under certain conditions. When you handle the carburetor, stop the engine and do not smoke. Make sure the area is well ventilated and free from any source of sparks or flames (this includes any appliance with a pilot light).

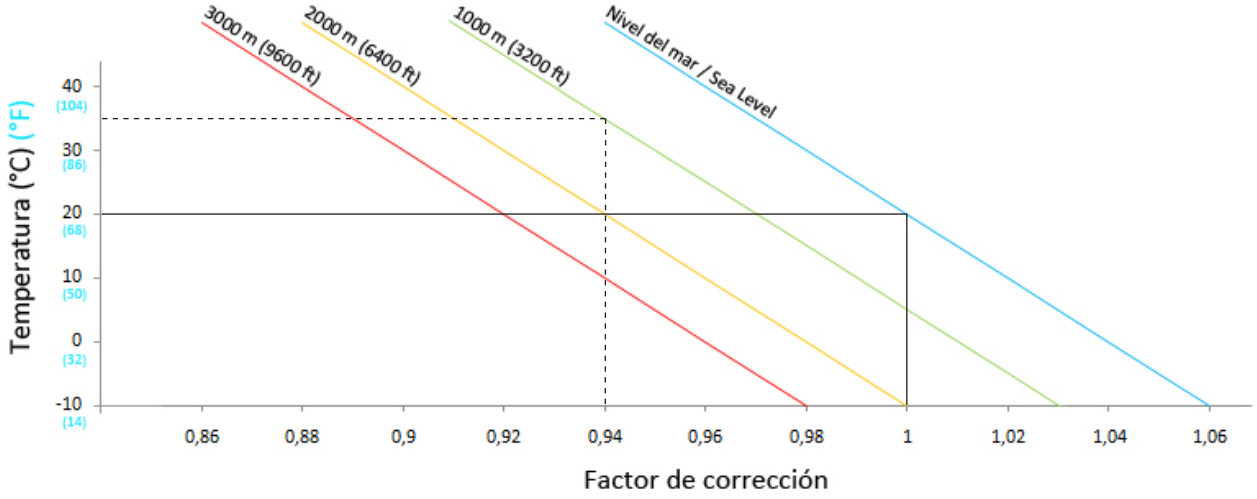
REFERENCE CARBURETION (COMPETITION USE ONLY)

Fuel	Unleaded (RON 95)
Main jet	175
Idle jet	42
Needle	N1EF
Needle position	3rd from top
Throttle valve	7
Mixture screw	1 turn from fully closed

Carburetor setting

CORRECTION FACTORS

(For temperature or altitude changes).



Needle position / Mixture screw opening					
Correction factor	1,06 o higher	1,06~1,02	1,02~0,98	0,98~0,94	0,94 or lower
Needle position	Lower clip 1 position	Same	Same	Same	Raise clip 1 position
Mixture screw opening	Tighten 1 turn	Tighten ½ turn	Same	Loosen ½ turn	Loosen 1 turn

1. Find the correction factor to adjust the carburetor.
   Example: 1000 m altitude and 35°C temperature, the correction factor is 0.94.
2. Using the correction factor, select the main jet.
   Example: Factor 0.94, multiply the main jet size by this number.
   Main jet = 175 x 0.94 = 165.
3. Find the correction factor for the needle and air screw on the table and change the clip position and air screw opening.
   Example: Raise clip 1 position and loosen 1 turn the mixture screw.

WARNING

To make corrections always take as reference the competition carburetion. Do not make changes if you are not sure that they are needed. This specifications are based on the use of the recommended gasoline and oil.

Carburetor setting

SYMPTOMS OF IMPROPER SETTINGS

If your bike has one of the following symptoms the changes must be adjusted. Before attempting any change make sure everything else is working properly.

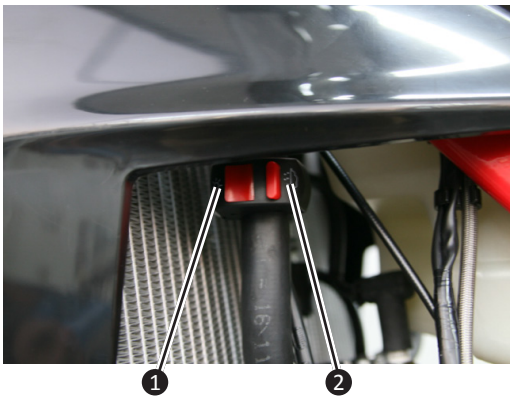
Check the condition of the spark plug, make sure the ignition timing is correct, clean the air filter, decarbonize the exhaust pipe.

If your bike has worked well up to this time it is possible that the problem is elsewhere and therefore changing the carburetion would be a waste of time.

- Set the carburetor until the engine responds satisfactorily with the throttle opening.
- If mixture is too lean, the engine tends to overheat. On the other hand, if too rich, the spark plug easily gets wet causing failure. The proper mixture varies according to atmospheric conditions (pressure and temperature). This conditions must be taken into consideration when adjusting the carburetor.

NOTE: Make sure that the carburetor components that regulate the flow of fuel and the screws that regulates the air mixture, are tight.

CDI map



Your **GAS GAS** has an ignition map switch with two positions.

In position 1 the behavior and engine power delivery is more aggressive, suitable for terrains with good grip and / or experienced riders.

In position 2 the performance and power delivery are more progressive, suitable for slippery surfaces and / or inexperienced riders.

Secondary transmission ratio

The secondary transmission ratio can be modified by changing the front and / or rear sprockets.

Available **GAS GAS** sprockets are as follows.

Rear: 39, 40, 42, 44, 46, 47, 48, 49, 50, 51, 52 teeth.

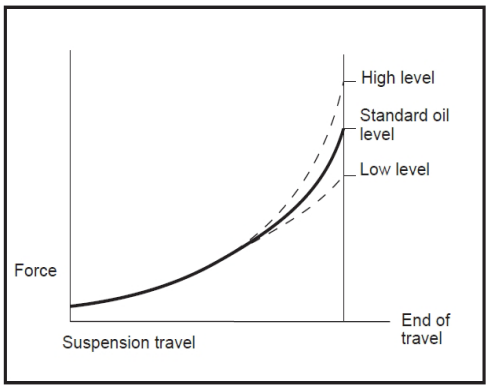
Front: 12, 13 teeth.

If you shorten the ratio, your **GAS GAS** will lose top speed but will gain in acceleration and low speeds, will be more manageable in difficult terrain.

NOTE: Attention to the engine rpm.

If the ratio is extended, your **GAS GAS** will gain top speed but lose acceleration and maneuverability at low speeds.

Suspension setting



AVAILABLE SETTINGS

Your motorcycle has adjustable suspension, these regulations are:

Front fork

- Rebound (1) - 22 clicks, located at the top of the fork.
- Compression (2) - 18 clicks , located at the bottom of the fork
- Oil level.

The oil level can be adjusted. A change in oil level does not affect the first part of fork travel.

When increasing the oil level the suspension is more progressive and front fork action is harder at the end of the fork travel.

When you decrease the oil level the suspension is less progressive and fork action is softer at the end of the fork travel.

If the fork is bottoming, increasing the oil level 10 mm.

WARNING

Ensure that both fork legs have the same level of oil for a regular suspension behavior.

Rear shock

- Rebound (3) - 37 clicks, located at the bottom of the shock.
- Compression in high (4) and low speed (5) - 23 clicks (high speed), 29 clicks (low speed), located at the top of the shock.
- Spring preload (6)

WARNING

High and low speed is referred to the damper rod speed and not necessarily at the speed of the vehicle.

Suspension setting

STANDARD SETTINGS

Fork		Shock	
Rebound	11 clicks from fully closed	**Preload**	12 mm
Compression	9 clicks from fully closed	**Rebound**	10 clicks from fully closed
		Low speed compression	10 clicks from fully closed
		High speed compression	10 clicks from fully closed

STATIC SAG

To adjust the SAG of the suspension, follow these steps:

1. Put the bike on a stand that allows you to leave the rear wheel in the air in a stable manner.
2. Measure the vertical distance (1) between the rear axle nut and the bolt clamping the muffler.
3. Get off the bike of the bike stand and position it with both wheels on the ground (not supported on the side stand).
4. Re-measure the vertical distance between the rear axle nut and bolt clamping the muffler.

If the difference between the measures is different from 35 mm, vary the spring preload of the shock to get it.

CORRECTION ACORDING TO TERRAINS

Always make changes from the default settings and only make them if necessary.

Hard terrain

Soften the compression damping adjustments on both the fork and the shock.

Sandy terrain

Stiffen the compression damping or replace the spring for one more stiffer on the fork. Stiffen the compression and especially the rebound of the rear shock, it can also help to reduce the spring preload.

Muddy terrain

Stiffen the compression damping or replace the spring for one more stiffer on the fork. Stiffen the compression and rebound in the rear shock, it can also help to increase the spring preload.

ADJUSTING YOUR BIKE

Compression

- **If you notice that the motorcycle woobles** or oscilates widely although the speed and the obstacles are small, has a low driving position or has a tendency to bottom on downhill, should harden the compression setting of both the fork and the shock. If this fails to correct, may be indicative of a too soft or fatigued spring, and low SAE or insufficient oil level.
- **If the motorcycle feels hard, especially in a series of bumps,** along with lack of rear wheel traction and high impact of the irregularities, should soften the compression setting of both the fork and the shock. If this fails to correct, may be indicative of a too hard spring or excessive level of oil

Suspension setting

in the fork.

Rebound

- **If the motorcycle feels unstable or soft,** easily losses the path or oscillates widely, although the speed and the obstacles are small. You must tighten the adjustment in rebound in both the fork and the shock. The failure to correct may be indicative of a too soft or fatigued spring, and low SAE or insufficient oil level.
- **If the motorcycle feels stiff and with short suspension travel,** along with lack of rear wheel traction and high impact of the irregularities, should soften the adjustment in rebound of both the fork and the shock. If this fails to correct, may be indicative of a too hard spring or excessive oil level in the fork.

WARNING

Make only one adjustment at a time and test the effect on the motorcycle.

The suspension setting adjustment is very critical, because if not done properly can keep even the best rider far from a full performance on the motorcycle. Check the suspension according to the driver and terrain conditions.

When tuning the suspension do not forget:

- If the bike is new, get used to the suspension for at least an hour of riding before making any changes.
- Factors to consider are the rider's weight, ability of the rider and terrain conditions.
- If you have problems, try changing your position on the bike to reduce it.
- You must adjust the suspension to the strengths of the rider. If you are fast on turns, adjust the suspension at this point.
- Make changes in small increments as it is very easy to miss.
- The front and rear suspension must be balanced.
- When evaluating the suspension, the rider must take consciousness and recognize the effects of the change. A rider position and / or fatigue may incorrectly view on settings.
- When the proper change for a particular terrain is found it should be written down for reference when returning to a similar terrain.
- Lubricate swingarm bearings, rods, rocker and joints before making changes to prevent excessive friction affecting the operation of the suspension.

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TROUBLESHOOTING

Troubleshooting

Fault	Cause	Solution
The engine does not crank.	Seized crankshaft.	Go to your **GAS GAS** official service.
	Seized cylinder, piston, etc.	Go to your **GAS GAS** official service.
	Seized transmission assembly.	Go to your **GAS GAS** official service.
The engine does no start.	Motorcycle has been inactive for a long time.	Unload the old fuel from the tank. When the tank is filled with the new fuel, the engine will start immediately.
	Spark plug dirty or wet.	Clean or dry the spark plug. If necessary, replace it.
	Engine flooded.	To unflood the engine, close the fuel tap, remove the spark plug, then put a gear and push the bike several feet with the throttle fully open. Visually you will know when the pre-compression pan is empty. Mount the spark plug and start the bike. You may have to remove the spark plug again if the operation was not enough, the spark plug will get wet and must be cleaned. Repeat the pushing, mount the spark plug and the engine will start. **DANGER** For your safety should wrap the spark plug cap with a dry cloth. This is to prevent possible spark.
	Incorrect air/fuel mixture	Clean the fuel tank breather. Clean the air filter.
	Exhaust valve opened.	Verify and correct the exhaust valve.
The engine starts but then stops.	Incorrect air supply.	Close the starter. Clean fuel tank air vent. Adjust the air cleaner duct.
	No fuel.	Fill up the fuel tank.
The engine overheats.	Insufficient coolant.	Fill up coolant, verify the refrigeration system watertightness.
	Radiator is dirty or partially restricted.	Clean radiator fins or replace it.
The engine operates irregularly	Spark plug dirrty or misadjusted.	Verify the spark plug condition and clean, tighten or replace it.
	Poor contact between spark plug and spark plug cap.	Verify the spark plug condition. Replace if deteriorated.
	Ignition rotor damaged.	Replace the rotor.
	Water in fuel.	Drain the fuel tank and fill up with new fuel.

Troubleshooting

Engine lacks power or poor acceleration	Fuel supply defective.	Clean the fuel system and verify its operation.
	Dirty air filter.	Clean or replace air filter.
	Leaking or deteriorated exhaust.	Verify if the exhaust is damaged.
	Dirty carburetor jets	Dissasembly the carburetor and clean all jets.
	Worn or damaged crankshaft bearings.	Go to your **GAS GAS** official service.
Abnormal engine noise.	Ignition problem.	Go to your **GAS GAS** official service.
	Overheating.	See "The engine overheats"
Detonations from exhaust.	Carbon build up in combustion chamber.	Go to your **GAS GAS** official service.
	Incorrect octane or poor quality gasoline.	Drain all gasoline and fill up with a higher octane or new fuel.
	Damaged spark plug or incorrect specification.	Replace the spark plug with a new one of the correct type.
	Deteriorated exhaust gaskets.	Verify the the exhaust gaskets. All gaskets must be in perfect condition, otherwise replace them with new ones.
White smoke coming out from the exhaust.	Deteriorated cylinder head gasket (water leakage into cylinder).	Go to your **GAS GAS** official service.
Black smoke coming out from the exhaust.	Restricted air filter.	Replace or clean the air filter.
	Main jet too high.	Verify main jet.
Gears do not engage correctly.	Clutch does not disengage.	Go to your **GAS GAS** official service.
	Bent or seized shift fork.	Go to your **GAS GAS** official service.
	Gear seized at the transmission.	Go to your **GAS GAS** official service.
	Damaged gearshift pedal.	Replace gearshift pedal.
	Broken or loose selector position spring	Go to your **GAS GAS** official service.
	Broken gear drum.	Go to your **GAS GAS** official service.
	Broken spring in the gear selector ratchet.	Go to your **GAS GAS** official service.
Gears jump out.	Shift fork worn out.	Go to your **GAS GAS** official service.
	Worn gear grooves.	Go to your **GAS GAS** official service.
	Worn gear dogs.	Go to your **GAS GAS** official service.
	Worn shift drum groove.	Go to your **GAS GAS** official service.
	Broken gears.	Go to your **GAS GAS** official service.
	Broken selector drum position spring.	Go to your **GAS GAS** official service.
Clutch slips.	Excessive clutch fluid level.	Verify the clutch fluid level and adjust.
	Worn clutch friction plate.	Go to your **GAS GAS** official service.
	Broken or weak clutch springs.	Go to your **GAS GAS** official service.
The motorcycle is unstable.	Cable interfereswith handlebar turns.	Move the cable.
	Steering stem locknut too tight.	Adjust steering stem locknut.

Troubleshooting

	Damaged or worn steering bearings.	Go to your **GAS GAS** official service.
	Bent steering stem.	Go to your **GAS GAS** official service.
Suspension is too hard.	Excessive front fork oil level.	Pour excess oil.
	Front fork oil viscosity too high.	Drain fork oil and fill with correct fork oil.
	Bent front fork.	Go to your **GAS GAS** official service.
	Tire air pressure too high.	Verify tire pressure.
	Incorrect suspension setings.	Adjust suspension.
Suspension is too soft.	Insufficient front fork oil level.	Fill with oil until the correct level is reached.
	Front fork oil viscosity too low.	Drain fork oil and fill with correct fork oil.
	Tire air pressure too low.	Verify tire pressure.
	Incorrect suspension setings.	Adjust suspension.
Abnormal motorcycle noises.	Incorrect chain adjustment.	Adjust chain tension.
	Worn chain.	Replace chain, front and rear sprockets.
	Worn rear sprocket teeth.	Replace rear sprocket.
	Insufficient chain lubrication.	Lubricate with appropiate chain oil.
	Incorrect rear wheel alignment.	Verify wheel spokes tension. Adjust if necessary.
	Weak or broken front fork spring.	Replace front fork spring.
	Worn brake disc.	Replace brake disc.
	Incorrectly installed brake pads o surface glazed.	Reinstall o replace brake pads.
	Damaged cylinder.	Go to your **GAS GAS** official service.
	Improperly tightened brackets, nuts and bolts.	Verify and adjust to correct torque values.
Handlebar vibration	Worn tire.	Replace tire.
	Worn swingarm or its needle bearings.	Go to your **GAS GAS** official service.
	Wheel rim off-centered.	Go to your **GAS GAS** official service.
	Incorrect wheel alignment	Verify wheel spokes tension. Adjust if necessary.
	Excessive steering axle tolerances	Verify steering head adjustment.
	Loose handlebar bracket or loose steering stem locknut.	Verify and adjust the steering bracket or steering stem locknut torque to correct values.
Motorcycle pulls to one side.	Bent chassis	Go to your **GAS GAS** official service.
	Incorrect steering adjustment.	Verify the steering head adjustment.
	Bent steering stem.	Go to your **GAS GAS** official service.
	Bent front fork.	Go to your **GAS GAS** official service.
	Incorrect wheel alignment	Verify wheel spokes tension. Adjust if necessary.
Brakes do not operate correctly	Worn brake discs.	Replace brake discs.
	Brake fluid leakage.	Go to your **GAS GAS** official service.
	Deteriorated brake fluid.	Go to your **GAS GAS** official service.
	Broken pump piston.	Go to your **GAS GAS** official service.
	Worn brake pads.	Verify and replace brake pads.
Blown light bulbs	Faulty voltage regulator	Go to your **GAS GAS** official service.

Troubleshooting

Lighting system does not operate	Lighting relay is blown.	Remove mask and check the relay.

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WARRANTY MANUAL

Warranty manual

(According to Law decree 23/2003 on the 10th of July, covering Warranties on Consumer Item Sales)

Warranty terms of the manufacturer GAS GAS Motos, S.A.

The company GAS GAS Motos, S.A. (hereafter referred to as "GG"), with this present document guarantees the consumer, the purchaser of a vehicle manufactured by GG, that both the materials and the manufacturing are free of defects in accordance with the highest standards of quality. Consequently, GG with this document guarantees the consumer (hereafter refered to as th "purchaser"), in accordance with the conditions set out below, the repair, free of charge, of any defect in materials or that might result from faulty manufacture that is detected in a new motorcycle within the period covered by this Warranty and with no limit on number of kilometres covered or hours of use.

Warranty period

The period covered by this Warranty will begin on the day of delivery of the vehicle to the purchaser by a GG authorised dealer, or in the case of demonstration models, on the date in which the vehicle is used for the first time. The seller will be responsible for any unwarranted faults that become apparent within the period established in th Law decree 23/2003 on the 10th of July covering Warranties on Consumer Goods Sold from the time of delivery and in accordance with the Directive 1999/44/EC for other members of the European Community. For countries outside the European Community, the Warranty Period will be determined by the existing regulations in those countries. Nevertheless, should the fault appear during the first six months after the delivery of the motorcycle, it will be presumed that the said fault existed at the time of delivery; from the end of the sixth month onwards, the purchaser must demonstrate that the unwarranted fault existed at the moment of delivery. During the first six months subsequent to the delivery of the repaired vehicle, the seller will be responsible for any unwarranted faults arising out of the repair.

Any defects detected in the product must be broughtto the attention of a GG authorised dealer within the Warranty Period. If the last day of this period is a Sunday or an official holiday, the Warranty period will be extended such that the last day of the period covered will be the first working day after the Sunday or official holiday.

Those claims under Warranty for defects not brought to the attention of a GG authorised dealer before the end of the Warranty Period will be excluded.

Obligation of the purchaser

GG will have the right to reject any claims under Warranty in the event that:

a.) The purchaser has failed to submit the vehicle to any of the inspections and/or maintenance work required in the Owner's Manual, or has exceeded the date set for such inspections or maintenance work. Also excluded from guarantee are those faults that appeared prior to the dates established for an inspection or maintenance work where the latter was not carried out, or was carried out later than the date established.

b.) An inspection, maintenance or repair has been performed on the vehicle by third parties not recognised or authorised by GG.

c.) Any maintenance or repair has been carried out on the vehicle that violates the technical requirements, specifications and/or instructions indicated by the manufacturer.

d.) Spare parts whose use has not been authorised by GG have been used during the course of maintenance work or repairs to the vehicle, or in the event that the vehicle has been used with fuels, lubricants or other liquids (including, amongst others, cleaning products) that have not been expressly mentioned in the specifications set out in the Owner's Manual.

e.) The vehicle has been altered or modified in any way or fitted with components other than those expressly authorised GG as accepted components of the vehicle.

f.) The vehicle has been stored or transported in a way that is not in accordance to the corresponding technical requirements.

g.) The vehicle has been used for special purposes other than ordinary use, such as competition, races or record breaking attempts.

h.) The vehicle has been directly or indirectly damaged as a result of a fall or an accident.

Warranty exclusions

The following items are not covered by this Warranty:

a.) Worn parts, including, without any limitation, spark plugs, batteries, petrol filters, oil filter elements, (secondary) chains, engine output pinions, rear sprockets, air filters, brake discs, brake pads, clutch plates and discs, bulbs, fuses, carbon brushes, footrest rubbers, tyres, inner tubes, cables and other rubber components.

b.) Lubricants (for example, oil, grease, etc.) and working fluids (for example, battery liquid, coolant, etc.)

c.) Inspection, adjustments and other maintenance tasks, as well as all kinds of cleaning work.

d.) Damage to the paint-work and consequent corrosion due to external causes, such as stones, salt, industrial fumes and other environmental impact, or inadequate cleaning with inappropiate products.

e.) Any damages caused as a result of the defects, as well as any expenses incurred either directly or indirectly as a consequence of the defects (for example, communication costs, accommodation expenses, car hire costs, public transport costs, breakdown truck fees, courier costs, etc.) as well as other financial losses (for example, those caused by the loss of the use of the vehicle, loss of income, time lost, etc.)

f.) Any acoustic or aesthetic phenomenon that does not significantly affect the condition or use of the motorcycle (for example, small or hidden imperfections, noise or vibrations that are normal in use, etc.).

g.) Phenomena that are result of the ageing of the vehicle (for example, discolouring of painted or metallic coated surfaces).

Various

1.) GG shall have the prerogative to decide, at its own discretion, whether to repair or replace defective parts. Where parts are replaced, ownership of the parts removed shall pass to GG without any other consideration. The GG authorised dealer, to whom the making good of the defects has been entrusted, is not authorised to make any declarations that are binding on GG.

2.) In case of doubt regarding the existence of a defect, or a visual or material inspection is required, GG reserves the right to demand the return of the parts which are the object of a claim under Warranty, or to arrange an inspection of the defect by an expert from GG. Any additional obligations arising out of guarantees on parts replaced free of charge, or any other service rendered free of charge are excluded from the effects of this present warranty. The Warranty on parts replaced within the Warranty Period will end at the expiry date for the Warranty Period of the product concerned.

3.) Should it prove to be the case that a defect can not be repaired, the purchaser guaranteed shall have the right to the cancellation of the contract (payment compensation) or a partial refund of the purchase price (discount), instead of repairing the motorcycle.

4.) Any claims against Warranty by the purchaser under the terms of the sale contract with the corresponding authorised dealer shall not be affected by the terms of this present Warranty. Neither will this present Warranty affect those additional contractual rights acquired by the purchaser under the general commercial terms and conditions of the authorised dealer. However, such additional rights may only be exercised through claims against the authorised dealer.

5.) Should the purchaser resell the product within the Warranty Period, the duration and conditions of the present Warranty will remain uanltered, in such a way as that the rights to make claims under the present Warranty in accordance with the terms and conditions set out in this present document shall be transferred to the new owner of the motorcycle.

GASGAS

Owner's manual 2012

EC 2T 250c.c./300c.c.