



GASGAS



Owner's manual **2019**

TXT RACING 2019

125-250-280-300CC



2018 GAS GAS

All rights reserved

Reprinting and reproduction of any kind, either in whole or in part, is prohibited without the written permission of the copyright holder.

The company has the right, without prior notice, to change the technical content of the products.

The models in the images may appear with special equipment that does not come with the standard model.

Edition 03/07/2018

Contents

Thank you to the consumer	4
Important notice.....	4
Warranty terms.....	5
Recommendations	8
Technical data	8
Location of components	10
Maintenance chart.....	13
Serial number	14
Control panel	15
Steering lock	16
Fuel.....	16
Fuel tank cap.....	17
Fuel tap	18
Starter / Carburation.....	18
Kick-start lever position.....	18
Lever settings.....	19
Checking the oil level	19
Draining the crankcase.....	20
Cleaning the air filter	20
Removing the fuel tank.....	21
Filling the radiator.....	22
Removing and checking the spark plug.....	23
Removing the filter box.....	24
Removing the carburettor.....	24
Removing the reed block	26
Clutch discs and spring.....	27
Front suspension.....	28
Rear suspension.....	29
Swinging arm joints.....	30
Joint lubrication	31
Chain and wheel tension adjustment.....	34
Chain coupling position.....	34
Tyre pressure and condition.....	34
Brakes	35
OBD system.....	37
Approved electrical system	40
Ignition electrical system	41
Tightening torque	42
Storage.....	43
Multifunction	44
Troubleshooting.....	45
Final thoughts	49

Thank you to the consumer

By choosing the new GAS GAS TXT RACING 2019 you have just joined the great GAS GAS team, and as a user of the number one brand of off-road motorcycles, you deserve the distinguished care that we would like to offer you, both after purchasing your GAS GAS and in the explanations that we set out in this manual.

Our TXT RACING 2019 is a trials motorcycle designed for top-level competition. It is, in fact, the result of many years of competing and experimenting in this demanding discipline, and many successes achieved by great riders who have contributed essential information in order to create this high-level motorcycle, a GAS GAS that has a key factor: an exceptionally reduced weight.

Congratulations because your choice has undoubtedly been the right one. With your skill at the handlebars of the motorcycle, proper preparation and the appropriate checks vital for it to be highly reliable, you can enjoy trials riding at its most comfortable and fulfilling.

Thank you for your confidence and welcome to GAS GAS

Important notice

Important notice

Read this manual carefully.

It sets out all of the aspects that should contribute to your safety and that of third parties, in addition to ensuring correct safekeeping and maintenance of the GAS GAS motorcycle that you have just purchased.

All instructions for riding and handling the motorcycle are detailed below. Each message is preceded by symbols with the following meanings:



Caution! This symbol indicates the rules and precautionary measures necessary to prevent minor and serious injuries or even the death of the user in case of not following the instructions correctly.



Attention! This indicates special warnings to avoid damage to the motorcycle. Non-compliance may lead to the automatic termination of the vehicle warranty.

Important notice



Various notes. These are necessary instructions to ensure correct use of the motorcycle's control and adjustment operations, and guarantee its safekeeping and maintenance, enabling you to enjoy the satisfaction of a motorcycle in optimum condition.

The aim of this manual is to help the user to minimise and avoid possible damage to people, property, the environment and, of course, the new motorcycle. For this, all of the information set out is based on data obtained from the most recent range of the brand available just before printing. GAS GAS does, however, reserve the right to make changes without prior notice to the consumer and without incurring any kind of liability. Your nearest dealer will also help to provide you with any information you need.

Warranty terms

Warranty manual

(In accordance with Law 23/2003 of 10 July concerning Warranties in the Sale of Consumer Goods)

The manufacturer GAS GAS's warranty rules

The GAS GAS (hereinafter GG) brand hereby guarantees to the end consumer/purchaser of the vehicle manufactured by GG that both the materials and the manufacture are free from defects in accordance with the highest quality standards. Consequently, GG hereby warrants to the final purchaser (hereinafter the "purchaser"), in accordance with the conditions set forth below, the repair of any defects in materials or workmanship detected on a new motorcycle free of charge within the warranty period and without any limitation as to the number of kilometres travelled or the number of hours of operation.

Warranty period

The warranty period shall commence 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 the vehicle first starts operating. The seller is liable for any lack of conformity which becomes manifest within the time period established under Law 23/2003 of 10 July on Warranties in the Sale of Consumer Goods from the time of delivery and in accordance with Directive 1999/44/EC for the rest of the Member States of the European Community.

For countries outside the European Community, the warranty period will be governed by the rules in force in those countries. However, if the lack of conformity becomes apparent during the first six months from the date of delivery of the motorcycle, it is presumed that this fault existed when it was delivered; from the sixth month, the consumer must prove that the non-conformity existed at the time of delivery of the goods.

Warranty terms

During the first six months after the delivery of the repaired good, the seller shall be liable for any lack of conformity which motivated the repair.

Any defects detected in the product must be brought to the attention of a GG authorised dealer within the warranty period. If the last day of the warranty period falls on a Sunday or an official holiday, the warranty period will be extended in such a way that the last day of the warranty period is the first business day after the Sunday or official holiday.

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

Obligations of the buyer

GG will be entitled to reject warranty claims if and to the extent that:

- a) The buyer has not proceeded to subject the vehicle to any of the inspections and/or maintenance work required in the user manual or has exceeded the date stipulated for such inspections or maintenance work; also excluded from the warranty are any defects that appear before the date set for an inspection or maintenance work that would have never been carried out, or that will be carried out after the established date.
- b) Inspection, maintenance work or repair has been carried out by third parties not recognised or authorised by GG.
- c) Any maintenance or repair that has been carried out on the vehicle is in breach of the technical requirements, specifications and instructions stated by the manufacturer.
- d) Spare parts not authorised for use by GG in maintenance or repair work on the vehicle have been used, or if, and to the extent that, the vehicle has been applied with fuels, lubricants or other liquids (including, but not limited to, cleaning products) that have not been expressly stipulated in the specifications of the User Manual.
- e) The vehicle has in any way been altered or modified or equipped with components other than those expressly authorised by GG as admitted vehicle components.
- f) The vehicle has been stored or transported in a manner inconsistent with the corresponding technical requirements.
- g) The vehicle has been used for a special use other than ordinary use, such as competition, races or attempts to obtain a record.
- h) The vehicle has suffered a fall or accident that directly or indirectly causes damage.

Warranty exclusions

The following items will be excluded from the warranty:

- a) Worn parts, including, but not limited to, spark plugs, batteries, fuel filters, oil filter elements, chains (secondary), bulbs,

Warranty terms

fuses, carbon brushes, footrest rubbers, tyres, chambers, cables and other rubber components.

b) Lubricants (e.g. oil, grease, etc.) and operating fluids (e.g. battery fluid, coolant, etc.).

c) Inspection, adjustment and other maintenance work, as well as all types of cleaning work.

d) Paint damage and consequent corrosion due to external influences such as stones, salt, industrial exhaust fumes and other environmental impacts or improper cleaning with improper products.

e) Damage caused by defects, as well as expenses caused directly or indirectly by incidents of defects (for example, communication expenses, accommodation expenses, car rental expenses, public transport expenses, towing expenses, express courier charges, etc.), as well as other financial damages (for example, caused by loss of use of a vehicle, loss of revenue, loss of time, etc.).

f) Acoustic or aesthetic phenomenon that does not significantly affect the condition of use of the motorcycle (e.g. small or hidden imperfections, normal noise or vibration of use, etc.).

g) Phenomena due to the ageing of the vehicle (for example, discolouration of painted or metal coated surfaces).

Various

1. In the event that the repair or replacement of the part will be disproportionate, GG will have the prerogative to decide at its sole discretion whether to repair or replace defective parts. The owner of the spare parts, if any, will be GG, without any other consideration. The GG authorised dealer who has been entrusted with the repair of defects will not be authorised to make binding declarations on behalf of GG.

2. In cases of doubt as to the existence of a defect or if a visual or material inspection is required, GG reserves the right to require the shipment of the parts on which a warranty claim is based or to request a review of the defect by a GG expert. Any additional warranty obligations on parts replaced free of charge or any service provided free of charge under this warranty will be excluded. The warranty for spare parts within the warranty period will expire on the expiration date of the warranty period of the respective product.

3. If a defect cannot be repaired and its replacement is disproportionate to the manufacturer, the secured consumer shall be entitled to cancellation of the contract (payment of compensation) or partial reimbursement of the purchase price (discount), instead of motorcycle repair.

4. The warranty claims of the buyer under the contract of sale with the corresponding authorised dealer will not be affected by this warranty. This warranty does not affect the buyer's additional contractual rights under the general conditions of business of the authorised dealer. Such additional rights, however, can only be claimed from the authorised dealer.

Recommendations

Recommendations for the proper functioning of your GAS GAS.

GASGAS

RECOMMENDS THE USE OF OIL:



- Eight hours of running-in time is recommended for proper engine functioning and duration.

- It is important to take the engine to an optimum operating temperature before using the motorcycle.

- Synthetic or semi-synthetic 2-stroke oil at 1.5% should be used for the oil-petrol mixture.

Recommended Fuel	E5	Gasoline with a content of 10% ethanol
	E10	

Technical data

ENGINE	2-stroke, single cylinder, reed valve intake directly to the crankcase, liquid cooled	
125cc. engine	Cylinder size	124.8 cc
	Bore and stroke	54 x 54.5 mm
250cc. engine	Cylinder size	247.7 cc
	Bore and stroke	72.5 x 60 mm
280cc. engine	Cylinder size	272.2 cc
	Bore and stroke	76 x 60 mm
300cc. engine	Cylinder size	294.1 cc
	Bore and stroke	79 x 60 mm
Lubrication system	Mixture (67:1) (1.5%)	
Ignition system	Digital CDI flywheel magneto	
TRANSMISSION		
Transmission type	6 gears, GAS GAS* Four / Six system (patented).	
Clutch type	Hydraulic command, of 1/3 discs of adjustable progressiveness with GASGAS* diaphragm (patented)	
Final drive system	By chain	
Gear ratio	1st 2.996 (35x27x28/16x24x23)	
	2nd 2.571 (36/14)	
	3rd 2.187 (35/16)	
	4th 2.112 (36x26x24/14x28x24)	
	5th 1.125 (27/24)	
	6th 0.821 (23/28)	

Technical data

Primary reduction ratio	2.777 (75/27)
Final reduction ratio	3.9 (39/10).
Overall drive ratio	8.891 (6th gear)
Transmission oil	Capacity 370cc
Type	NILS FOR CLUTCH TX

FRAME

Type	Tubular profile made with Cr-Mo
Tyre measurements	Front 2.75 x 21" Trial
	Rear 4.00 x 18" Trial tubeless
Suspension	Front Telescopic fork \varnothing 39mm
	Rear Progressive system with adjustable monoshock
Suspension stroke	Front 177mm
	Rear 164mm
Front fork oil	OJ 01 (SAE 5)
Front fork oil level	\varnothing 39mm left-130mm air chamber right-75mm air chamber

BRAKES

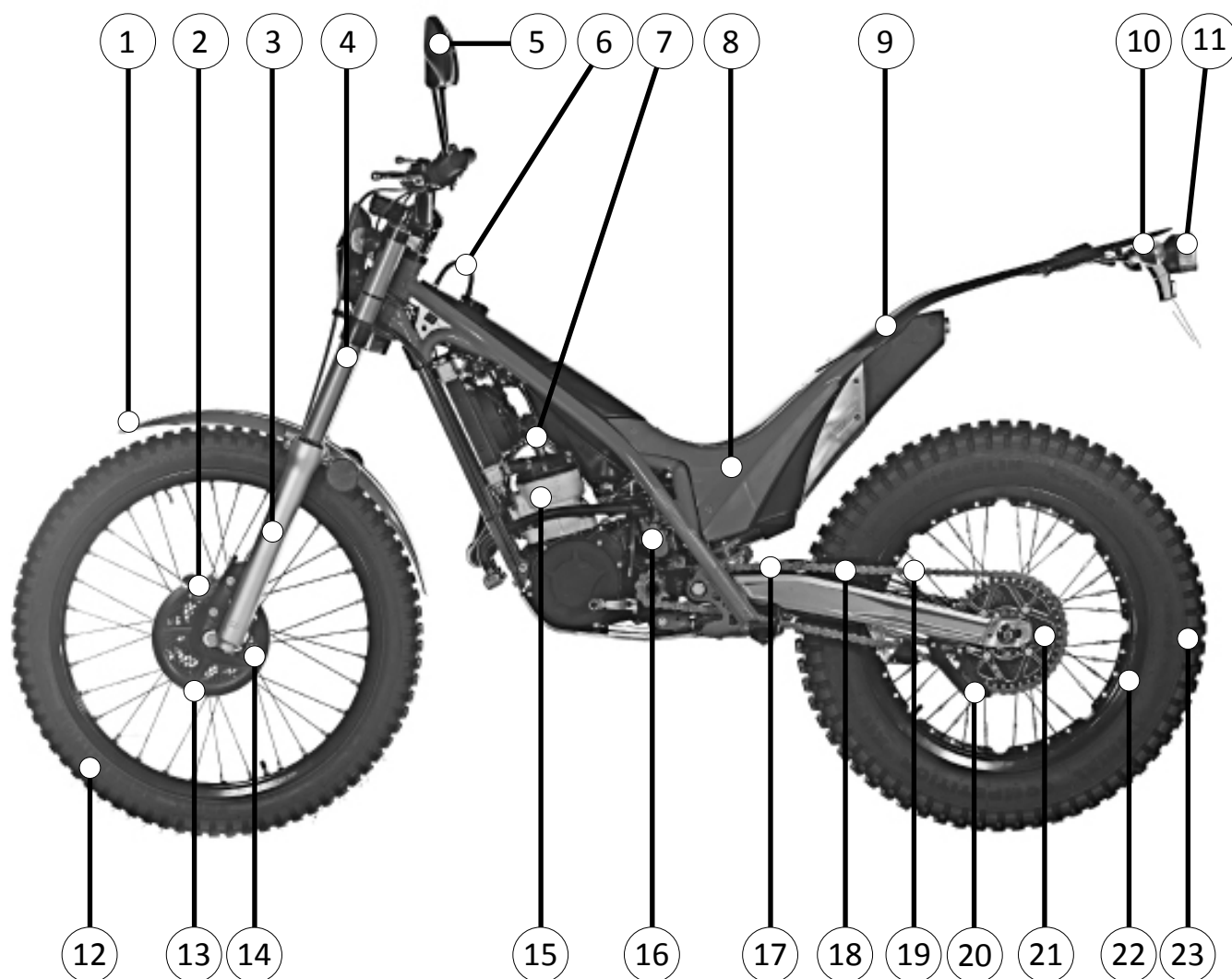
Type	Disc brake
Disc diameter	Front \varnothing 185mm. 4-piston calipers
	Rear \varnothing 150mm. 2-piston calipers.

DIMENSIONS

Overall height	1130mm
Overall width	825mm
Seat height	660mm
Ground clearance	325mm
Wheelbase	1320mm
Fuel tank capacity	2.3L

(Specifications subject to change without notice, and possibly not applicable in all countries).

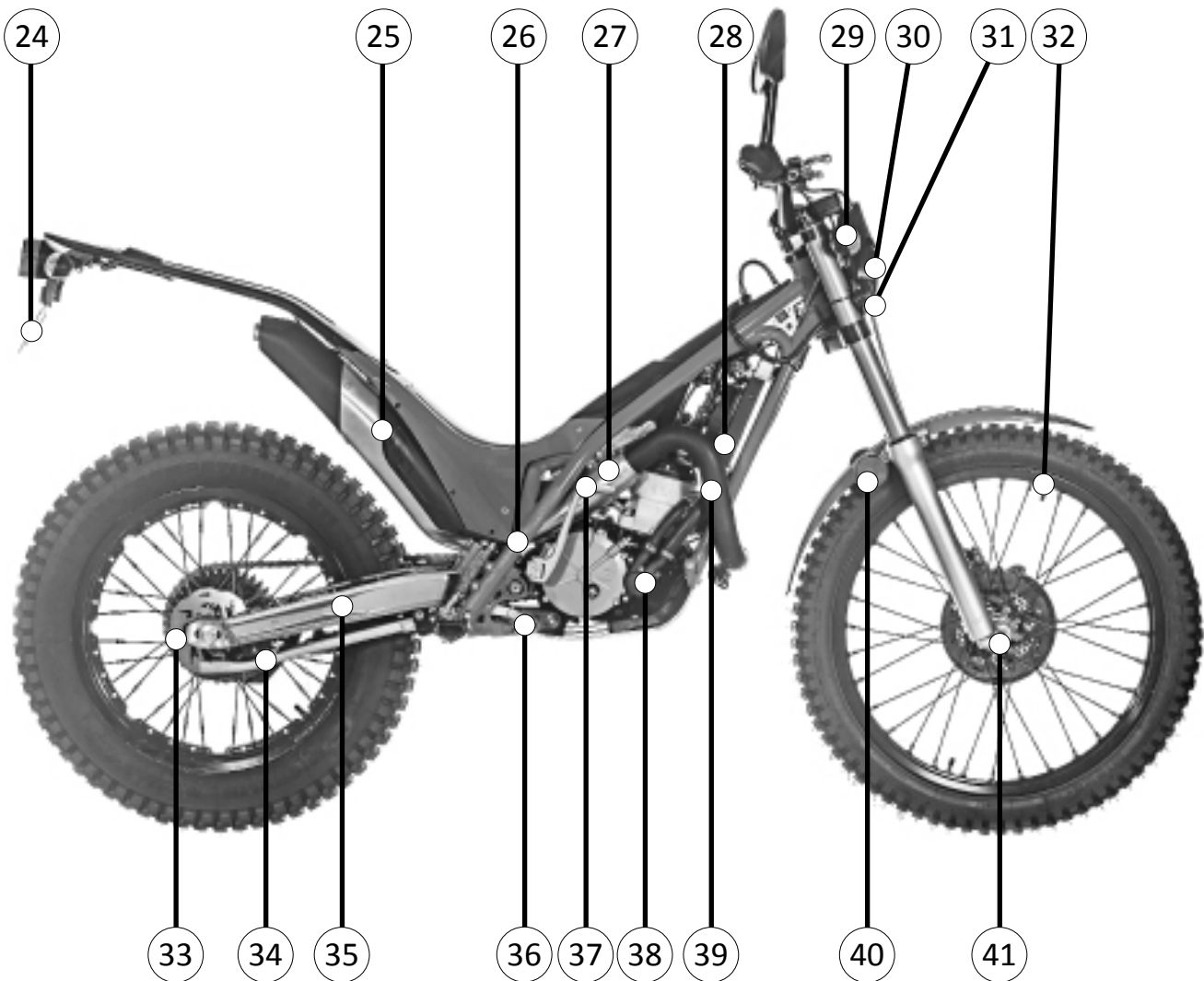
Location of components



* Image of the TXT Racing 2019

Number	Name	Number	Name
1	Front mudguard	13	Front brake disc guard
2	Front brake caliper	14	Front brake disc
3	Front suspension outer tube	15	Cylinder
4	Front suspension bar	16	Carburettor
5	Rear-view mirrors	17	Chain tensioner
6	Fuel breather hose	18	Chain guide
7	Spark plug	19	Chain
8	Filter box	20	Rear sprocket cover
9	Rear mudguard	21	Sprocket
10	Rear indicators	22	Rear rim
11	Tail lamp	23	Rear tyre
12	Front tyre		

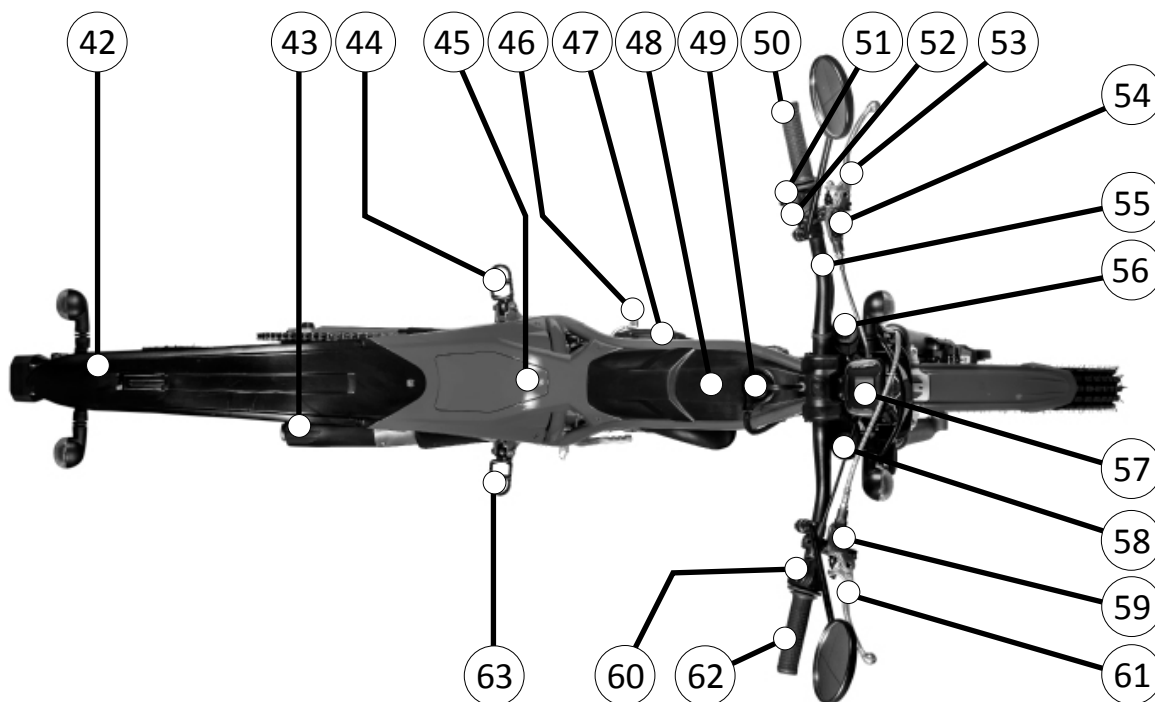
Location of components



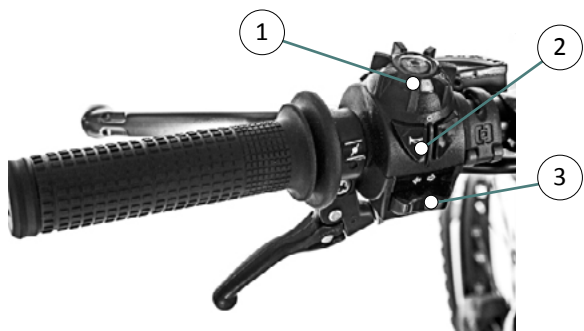
* Image of the TXT Racing 2019

Number	Name	Number	Name
24	Number plate holder	36	Rear brake pedal
25	Exhaust protection	37	Kick-starter
26	Frame	38	Water pump
27	Intermediate exhaust	39	Exhaust pipe elbow
28	Radiator	40	Catadioptric
29	Front indicators	41	Front wheel axle
30	Headlight		
31	Horn		
32	Front tyre air valve		
33	Rear brake disc		
34	Side stand arm		
35	Swinging arm		

Location of components



Number	Name	Number	Name
42	Rear mudguard	54	Clutch pump
43	Silencer	55	Handlebars
44	Left foot peg	56	Left suspension regulation
45	Air filter cover	57	Multifunction
46	Gear shift pedal	58	Right suspension regulation
47	Ignition cover	59	Front brake pump
48	Fuel tank	60	Throttle mechanism cover
49	Fuel tank cap	61	Front brake lever
50	Left-hand grip	62	Throttle grip
51	Light controls	63	Right foot peg
52	MIL		
53	Clutch lever		



Number	Name	Number	Name
1	Long and short-beam lights	4	Stop
2	Horn		
3	Indicators		

Maintenance chart

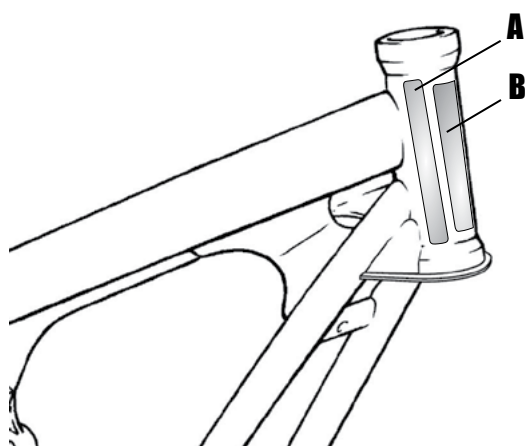
The maintenance and adjustment operations shown in the chart are easy and necessary to carry out to ensure that the motorcycle is kept in good condition.

MAINTENANCE CHART					
Part	Check/Inspect	Adjust	Replace/Change	Clean	Grease/Lubricate
Rear shock absorber	Every year	-	Every 2 years	-	-
Transmission oil	30 hours	-	60 hours	-	-
Front suspension oil	-	-	60 hours	-	-
Brake adjustment	Every race	If is necessary	-	-	-
Swinging arm and tie rods	Every race	-	If is damaged	Every race	Every wash
Spark plug	Every race	60 hours	60 hours	60 hours	-
Throttle cable and twist grip	Every race	If is necessary	If is damaged	If is necessary	Every wash
Chain	Every race	If is necessary	If is damaged	Every race	Every wash
Reed block	30 hours	-	If is damaged	Every race	-
Carburettor	Every race	If is necessary	If is damaged	Every race	-
Frame	Every race	-	If is damaged	Every race	-
Carburettor jet	-	If is necessary	If is damaged	-	-
Steering bearing	Every race	-	If is damaged	-	-
Piston bearing	-	-	If is damaged	-	-
Wheel bearing	-	-	If is damaged	-	-
Engine bearing	-	-	If is damaged	-	-
Rear sprocket	30 hours	First 5 hours	If is damaged	-	Every wash
Cylinder head, cylinder	60 hours	-	Every year	-	-
Brakes	Every race	If is necessary	If is damaged	-	-
Brake discs	Every race	First 5 hours	If is damaged	Every 2 race	-
Clutch discs	-	-	If is damaged	-	-
Clutch	Every race	-	If is damaged	-	-
Engine protector plate	-	-	In a fall	-	-
Exhaust	Every race	-	500 hours	-	-
Muffler fibre	-	-	100 hours	-	-
Air filter	Every race	-	If is damaged	Every race	Every wash
Steering play	Every race	If is necessary	-	-	-
Brake hose	Every race	If is necessary	Every 2 years	-	Every wash
Cooling fluid	Every race	If is necessary	Every year	-	-
General lubricant	Every race	-	-	Every race	Every wash
Front and rear rim	Every race	-	If is damaged	Every race	-
Tyres	Every race	-	If is damaged	Every race	-
Brake fluid level	Every race	If is necessary	-	-	-
Chain guide slide	Every race	-	If is damaged	-	-
Kick-starter and gear shift pedal	Every race	-	If is damaged	-	Every wash
Brake pump piston and dust cover	Every race	-	If is damaged	-	-
Brake piston and dust cover	-	-	If is damaged	-	-
Piston and piston ring	60 hours	-	Every year	-	-
Front and rear spokes	Every race	5 hours	If is damaged	Every race	-
Fuel system	Every race	-	If is damaged	-	-
Front suspension	Every race	If is necessary	If is damaged	Every muddy race	Every 3 dusty race
Exhaust O-ring	-	-	If is damaged	-	-
Bolts, nuts and fasteners	Every race	If is necessary	If is damaged	-	-
Fuel hose	Every race	If is necessary	If is damaged	-	-
Radiator hose and connections	Every race	If is necessary	If is damaged	-	-
Frame protection stickers	Every race	-	If is damaged	-	-
Crankcase guard	-	-	If is damaged	-	-

Serial number



Make a note of the vehicle's identification number (serial no.), information on the model label and key identification details in the spaces provided for this purpose for ease of ordering spare parts or as a reference in the event of theft of the motorcycle.



Serial number (A)

This is marked on the right-hand side of the steering tube. It indicates the frame number under which the vehicle is registered.

Manufacturer's nameplate (B)

The motorcycle has a manufacturer's nameplate including the serial number marked on the front and information that must match the documentation.

Key identification number

This is used to lock the steering. The identification number appears just at the union of the keys. This number must be used to request a new key in case of loss.



The new GAS GAS TXT RACING 2019 has a manufacturer's nameplate with information that must match the documentation and a frame number marked on the steering tube.

Control panel



The controls for the lights are located by the left-hand grip, the top one of which in the main switch, which rotates to various positions.



The indicator control is located at the bottom of the left-hand grip.

By moving the switch to the right or left, the right-hand or left-hand indicators turn on.



The control panel has a light switch, indicator control, horn and engine switch-off.



Steering lock



The steering lock is located below the bottom suspension clamp, on the right-hand side. For correct functioning, completely turn the handlebars to the right as far as they will go, insert the key into the slot, turn it anti-clockwise, press and then turn it clockwise. You can remove the key and the steering will remain locked.



Never leave the key in the locking mechanism. If the steering is turned with the key in the lock, it could become damaged and break the locking system.

Fuel



Fuel tank capacity: 2.3 litres

Use unleaded petrol with an octane rating equal to or greater than that shown in the table.

METHOD OF MEASURING OCTANE RATING	MINIMUM OCTANE RATING
Antiknock Index (RON + MON)/2	90
Research Octane No (RON)	98



Petrol is extremely flammable and can be explosive under certain conditions. Always switch off the engine and do not smoke. Make sure that the area is ventilated and free of flammable heat sources or sparks.



Do not mix vegetable and mineral oil. Too much oil can cause excess smoke and dirt in the spark plugs. Too little oil can cause engine damage or premature wear.

Fuel

GASGAS

RECOMMENDS USING
NILS DUO SYNT S OIL



This engine works by using a fuel mixture consisting of unleaded petrol and oil.

E5 E10



Fuel tank cap

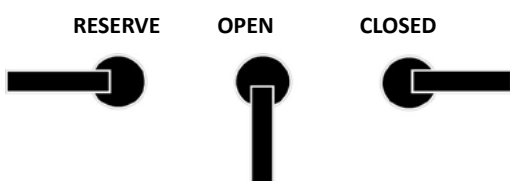


The fuel tank cap is quick-acting. To open the cap, lift the tab and give it a $\frac{1}{4}$ turn anti-clockwise. To close it, place the cap with the words GAS GAS in the upper position, and turn the tab clockwise. It is advisable to frequently check the condition of the rubber to ensure correct sealing.

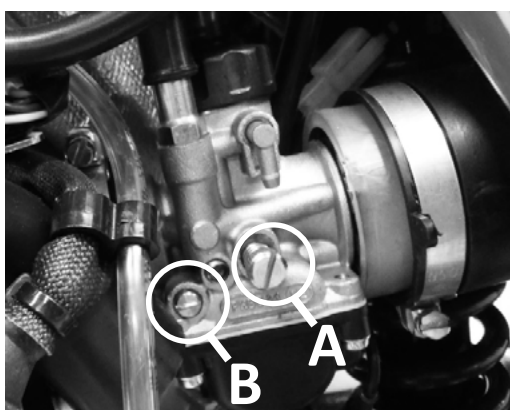
Fuel tap



Fuel tap (A) needs to be in a vertical position for it to function.
Forwards, reserve; downwards, the flow is open; and backwards, closed.

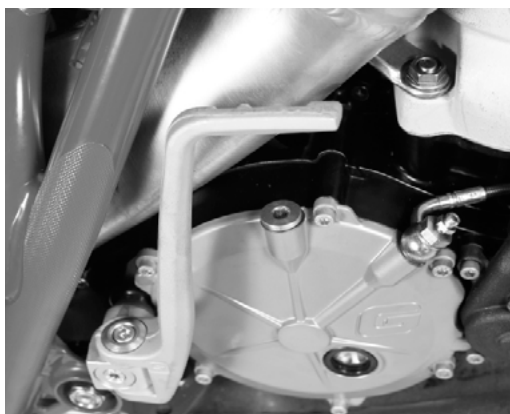


Starter / Carburation



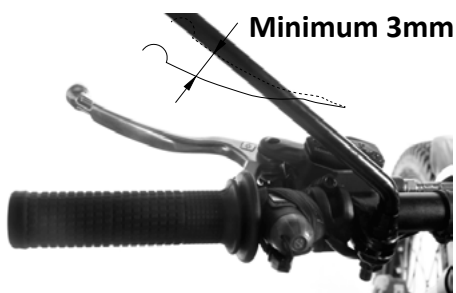
Engine idling speed (A) and mixture inlet (B) are adjusted using the screws marked in the photograph.

Kick-start lever position



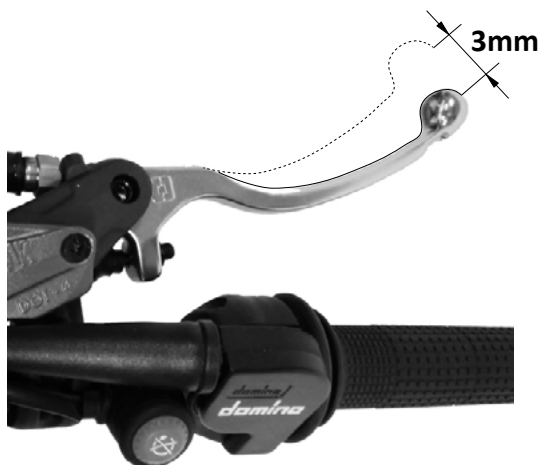
This is how the kick-start lever should look in the rest position.

Lever settings



The clutch control should be set to the required distance and the lever should not have a play of more than 3 mm.

Never remove this play.



Like the clutch, the front brake lever should be at the ideal distance for operation. The lever should not have a play of more than 3mm.

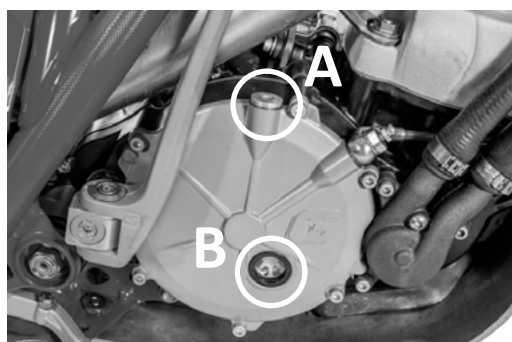
Never remove this play.

Checking the oil level

OIL CAPACITY
(See p. 9)



To replace oil, pour it through cap **(A)**.



To check the oil level, place the motorcycle perpendicular to the ground. If the bike has been used wait a few minutes. Check the oil level using the level indicator on the lower right-hand side of the engine **(B)**. It should be between the maximum and minimum. If too high, remove the excess; if too low, open the oil cap and add the necessary amount. Use the same type and brand of lubricant that the engine already has.

Draining the crankcase



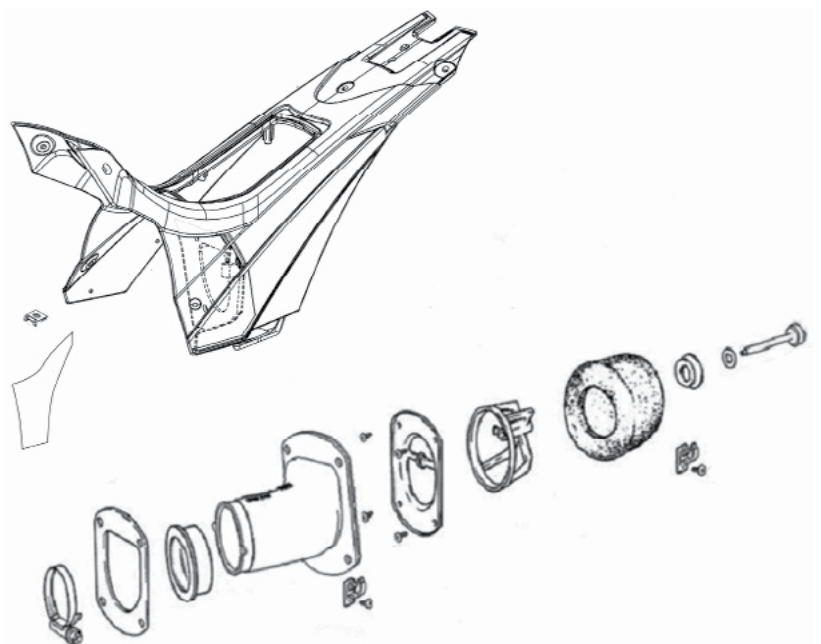
The crankcase drain plug is located on the bottom left-hand side. A hole in the crankcase guard enables easy drainage.

Cleaning the air filter



It is important to regularly check the air filter. Open the hatch located on the tail fairing of the motorcycle as shown in the photograph.

To clean it, use water and detergent, dry it and lubricate it with special filter oil. Make sure that it is correctly fitted once clean. At the bottom of the filter box, there is a flap that functions as a valve for draining liquids and/or elements that accumulate inside the filter box. Make sure that this valve is operating correctly.



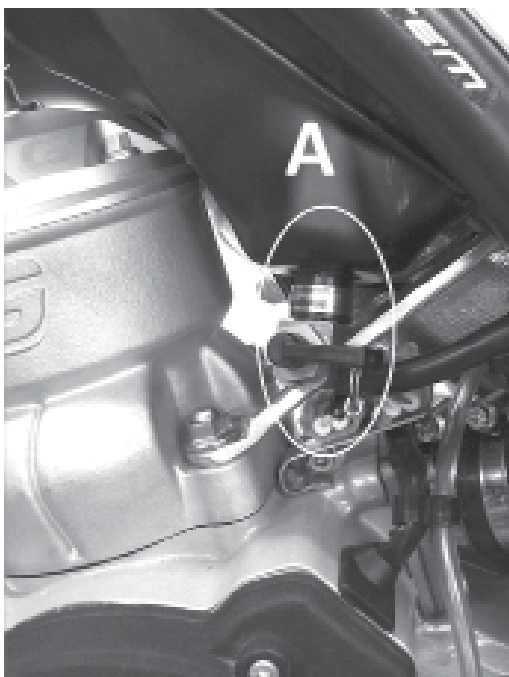
Cleaning the air filter



Remove the rubber visor from the inside of the box to gain free access to the air filter.

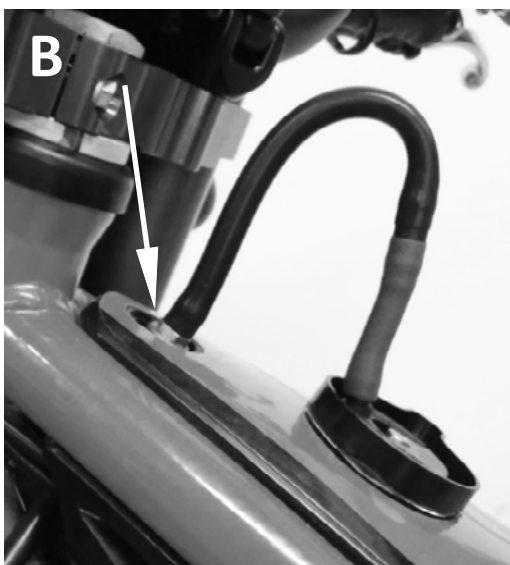


Removing the fuel tank

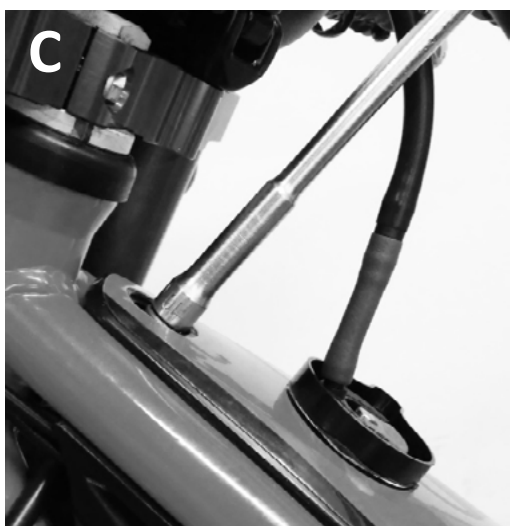


Before performing any operation on the engine, or on any other interior part of the motorcycle, remove the fuel tank located at the top of the frame. To do so, firstly ensure that the fuel cap and fuel tap are both correctly closed. Then remove the end of fuel pipe (**A**) which is inserted into the tap.

Removing the fuel tank

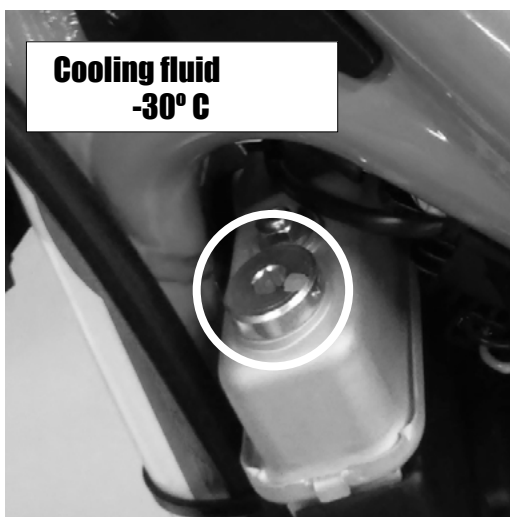


Thirdly, remove screw **(B)** which secures the top and front parts of the tank.



The entire tank can now be removed by simply lifting the front part and extracting it from the inside of the frame **(C)**.

Filling the radiator



To fill the radiator, use special coolant for light alloy engines.



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

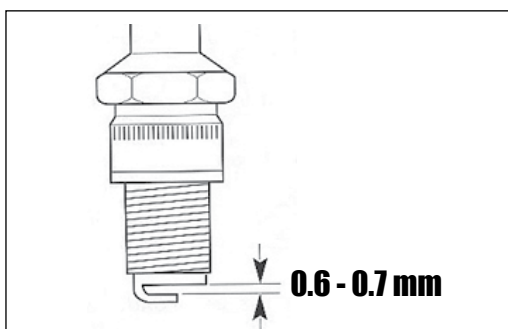
Removing and checking the spark plug



Regularly check the condition of the spark plug. To do so, remove it from its housing at the top of the cylinder head. First, remove the cap from the current and unscrew the spark plug using a suitable spanner. Blow the spark plug with pressurised air to remove traces of dirt and prevent debris from entering the engine compartment.



The spacing between the electrode and the arc should be between 0.6mm and 0.7mm.

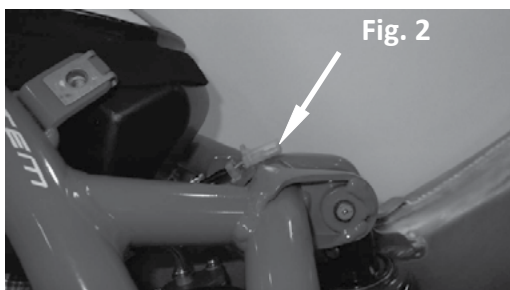


Removing the filter box



To carry out any operations on the carburettor, it is advisable to remove the filter box for better access. Follow these steps:

1. Loosen the inlet nozzle clamp.
2. Unscrew the 4 cone-shaped M6 Allen screws that secure the filter box to the frame.
3. Pull out the filter box slightly so that the connector of the rear wiring is visible. (Fig. 1).



4. Disconnect the connector (Fig. 2)
5. Completely remove the filter box

The carburettor will be left exposed and can be removed from the engine assembly by loosening the reed block pipe clamp.

Loosen the two screws on the upper cover of the carburettor so that the body is ready for cleaning.

Removing the carburettor

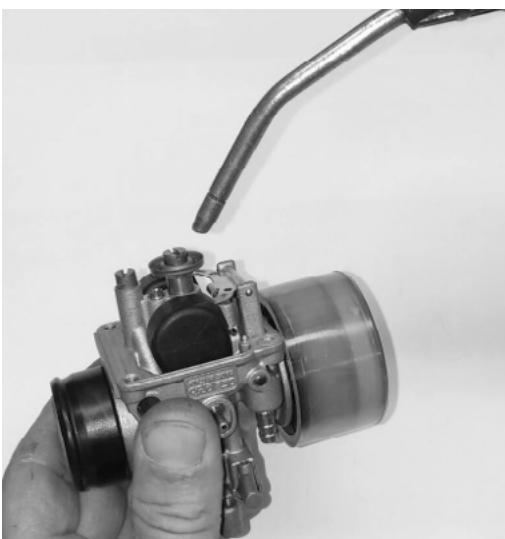


Take care to completely dry the inside of the carburettor. Traces of water, dirt or other elements can enter the reed block and damage it, and consequently damage the piston cylinder assembly.

Removing the carburettor



It is important to check the fuel level inside the carburettor. The height of the float should be 15.16mm.



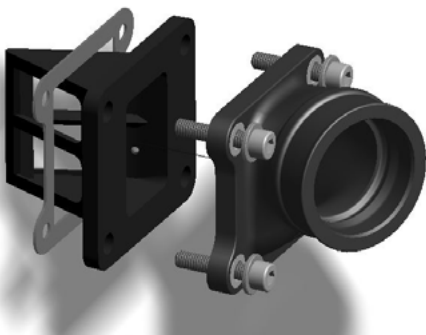
It is necessary to carry out a thorough cleaning of the carburettor. For this, use compressed air.

Removing the carburettor



Remove and regularly clean the main jet after washing and clean the inside of the carburettor float chamber.

Removing the reed block



The reed block assembly only consists of a body, reeds and stops. To examine this assembly, remove it by unscrewing the 4 screws that hold it to the back of the left and right-hand crankcases.

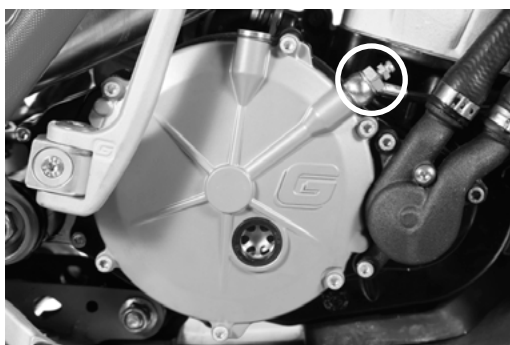


Since it is the last access door to the inside of the cylinder, take special care to keep it in good condition and regularly check its properties. Take care to cover the cylinder inlet with a clean cloth to prevent foreign objects from entering the compartment when the components are handled.

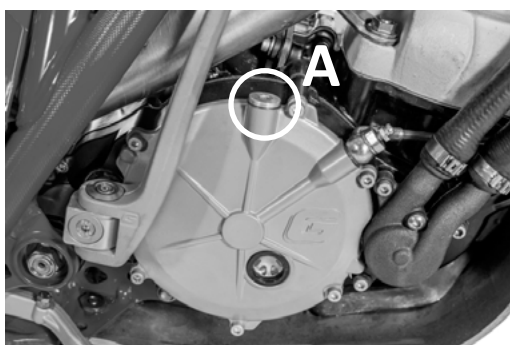


The distance between the reeds and stops must be 6.5 mm for all cubic capacities. The reeds must be in perfect condition. They must not have notches, scratches or bent and/or broken parts. If they do, replace the assembly with a new one.

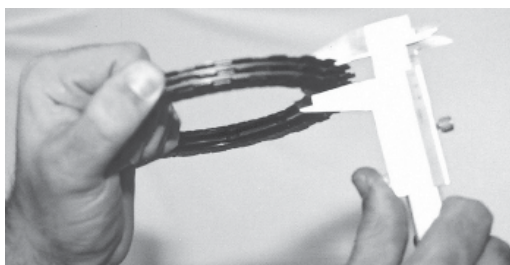
Clutch discs and spring



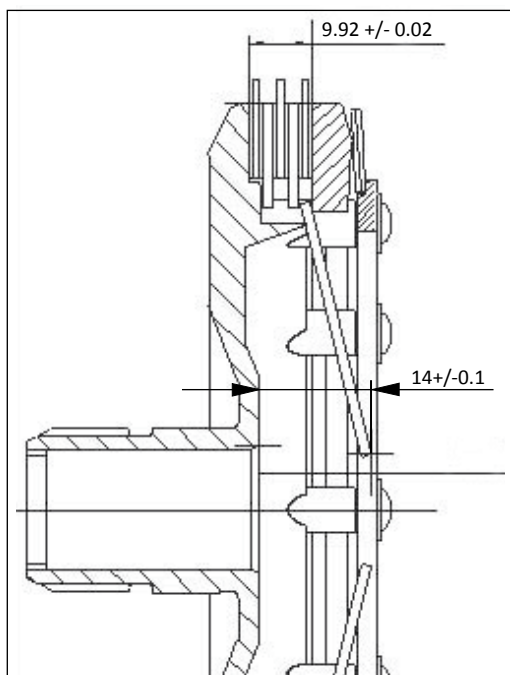
After any clutch actuation circuit disassembly and assembly operations, any traces of air can be removed with a bleeder.



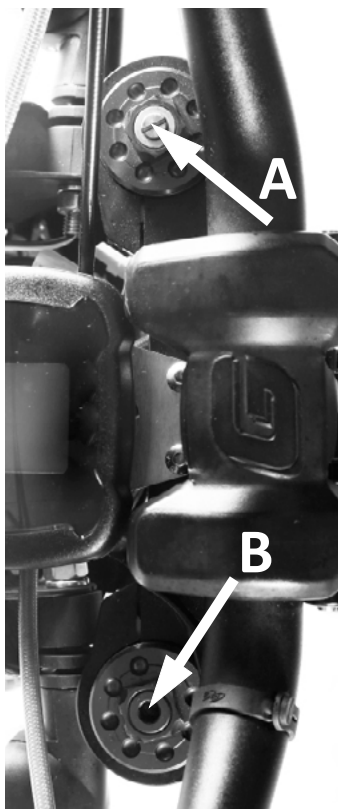
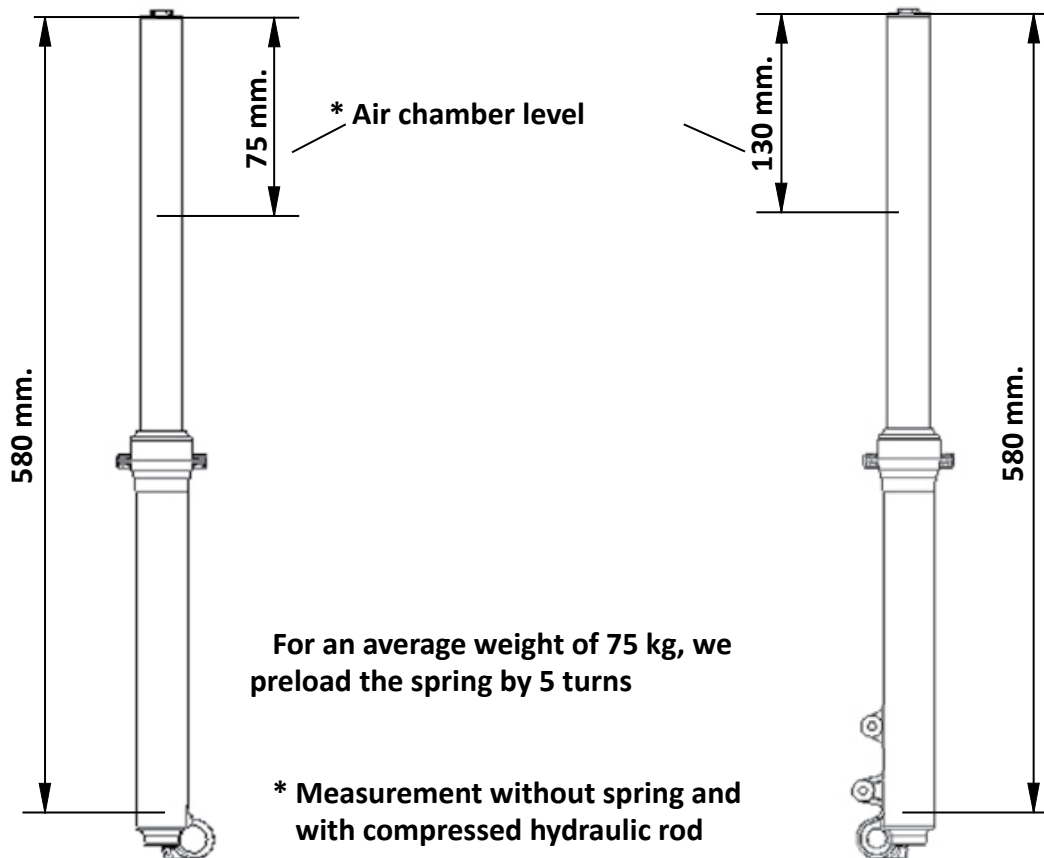
(A) The circle indicates where the engine oil is filled up.



After many hours of use, check for possible wear to the clutch discs. The minimum measurement for correct operation is 9.87 mm.



Front suspension



The front suspension is adjusted manually.

- (A) Right (hydraulic extension)
- (B) Left (spring preloading)



In the lower part of the suspension, we have the following adjustments:
right (hydraulic compression)
left (hydraulic brake end of travel)

Rear suspension



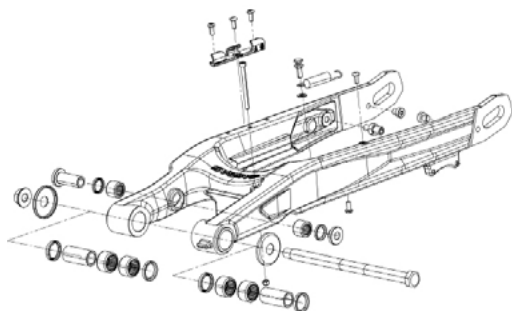
The preloading of the shock absorber is adjusted by rotating the toothed rings (C) with two special spanners. Starting from the standard preloading of 7.5 mm for 300-280-250 and 7 mm for 125, tighten or loosen, depending on the weight of the rider, reaching a maximum of 9 mm of preloading (see spring and preloading table). Preloading is the difference in length in mm between a spring when it is tensioned and when it is at rest.

ÖHLINS SHOCK ABSORBER		
Rider weight without equipment (Kg)	K (N/mm) spring	Spring preloading (mm)
Up to 70	65	7
From 70 to 85	70	7.5
Over 85	75	From 7 to 8.5

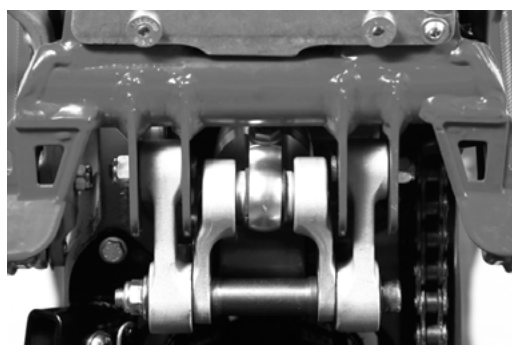


The rebound or extension is adjusted with the screw. Its standard position is 20 clicks from closed. From this starting position, open clicks if faster extension or rebound is sought and close clicks if slower extension or rebound is desired.

Swinging arm joints



It is important to regularly remove and check the condition of the swinging arm bearings and supports.



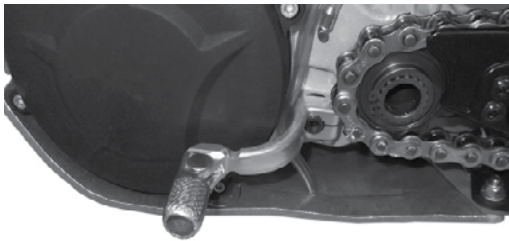
Regularly clean, check and grease the joint adjustments of the lower part of the rear suspension.

Joint lubrication

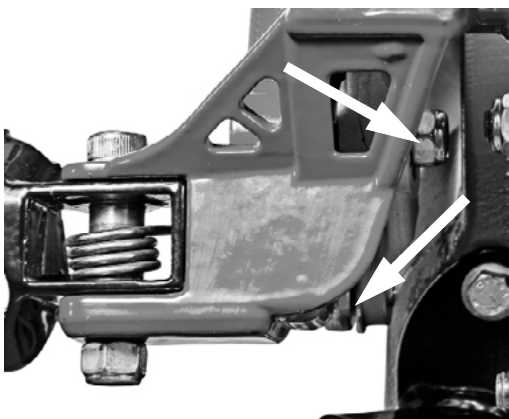


With special oil, grease:
1) The clutch and brake lever joints.

Joint lubrication



2) The gear lever joint.



3) Also the rear brake pedal (bearings).

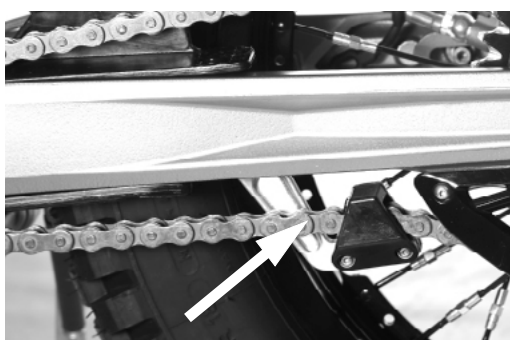


4) Grease the fixings and springs of the footrests.

Joint lubrication



5) Grease the engine start lever joint.



6) The drive chain needs to be cleaned and greased regularly due to its constant friction and exposure to all types of elements.



7) Grease the handlebars with a thin coat of oil for smooth operation of the throttle control.

Joint lubrication



8) Grease and clean the throttle control frequently, especially after washing the motorcycle with pressurised water equipment.



9) Lift the upper cover of the throttle control to access the cam and grease it well.

Chain and wheel tension adjustment



To tension the chain and centre the rear wheel, the shaft has easily adjustable eccentrics

Chain coupling position



The coupling of the chain needs to be placed opposite the direction of travel

Tyre pressure and condition



Fig. 1



Check the condition of the tyres to achieve optimum adhesion.

Fig. 1 - Bad condition

Front tyre:
2.75 x 21" TRIAL

Tyre pressure and condition



Check the condition of the tyres to achieve optimum adhesion.

Fig. 2 - Good condition

Rear tyre:
4.00 x 18" TRIAL
(tubeless)



Regularly check tyre pressure.

Front wheel pressure:

1.2 bar - normal

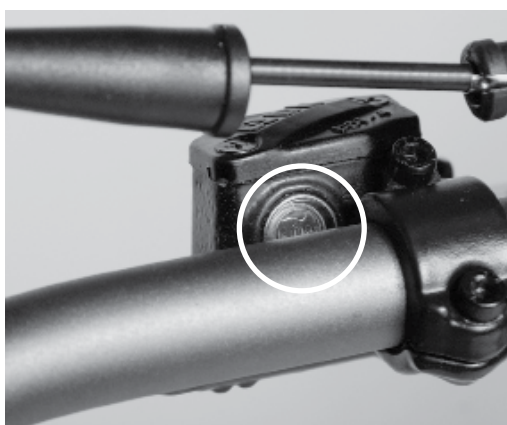
**0.420 bar - only competition

Rear wheel pressure:

1.2 bar - normal

**0.300 bar - only competition

Brakes

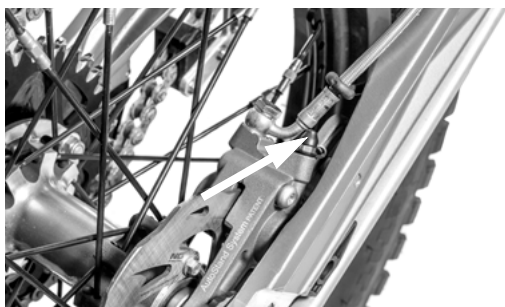


The level of the front brake fluid can be checked using the sight glass on the pump tank.

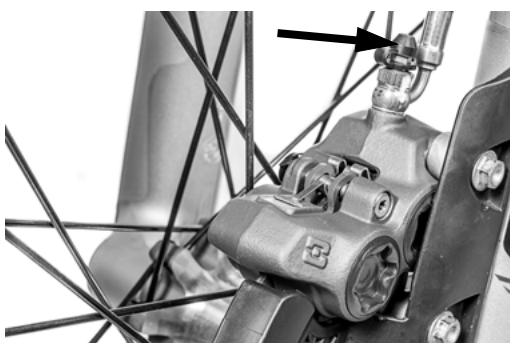
Brakes



The wear of the front and rear brake pads should be checked regularly to ensure effective braking at all times.

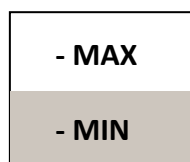


To eliminate traces of air from the brake circuit, the calipers are equipped with bleeders.



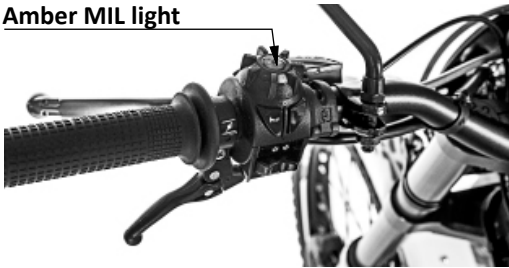
Regularly check the level of the liquid. Top up if necessary.

To check the level of the tank, place the motorcycle in a vertical position to see the actual level of the liquid. It should be between MIN and MAX.



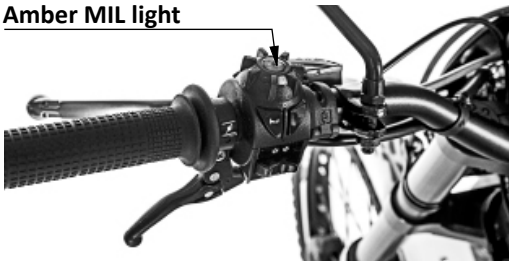
OBD system

Amber MIL light



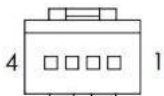
The OBD (on board diagnostic) system features an MIL indicator light to indicate any malfunctions.
When the motorcycle is started, the MIL (malfunction indicator light), located on the top of the switch, turns on.

Amber MIL light

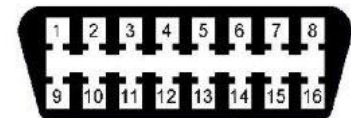


If there is no error, the MIL turns off after 5 seconds.
If the OBD system detects an error, the MIL light stays on permanently. It will turn off if it is started 3 consecutive times exceeding 2,000 rpm, if no error is detected.

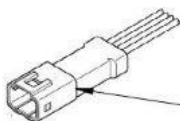
It can be connected to the OBD system using a diagnostics machine compatible with the ISO 15765-4 CAN protocol. To connect the 4-way socket of the motorcycle's electrical system to the diagnostics machine (18-pin JAE connector), it is necessary to use an interface cable, which can be purchased from GG's spare parts department with reference EM10225TT-CLR-1.



PIN connection	
04T-JWPF-VSLE-S	OBD Std.
1	16
2	14
3	6
4	4



OBD Standard connector



connector
04T-JWPF-VSLE-S

Description	No. Plane
Cable torrot diagnosis OBD MUVI	EM10225TT-CLR-1

OBd system



The 4-way socket is located on the right. To connect the Creader VI+ scan tool (or similar), the protection needs to be removed from the connector.

When the scan tool is connected, it turns on and the start screen appears connecting to the ISO 15765-4 CAN protocol that our OBD system has. If the OBD system detects an historical error, the MIL stays on permanently.

Also, if you use the Creader VI scan tool, you can see in Monitor Status the information MIL status ON. (With the key light in red at the top).

OBD system



You can cancel the error if you go to Diagnosis Menu - Erase error.

If you return to the Monitor Status screen, the MIL Status is OFF and, at the top, the green light appears turning off the red key light... And, at the same time, the MIL turns off on the switch.

On the scan tool, the following information can be viewed:

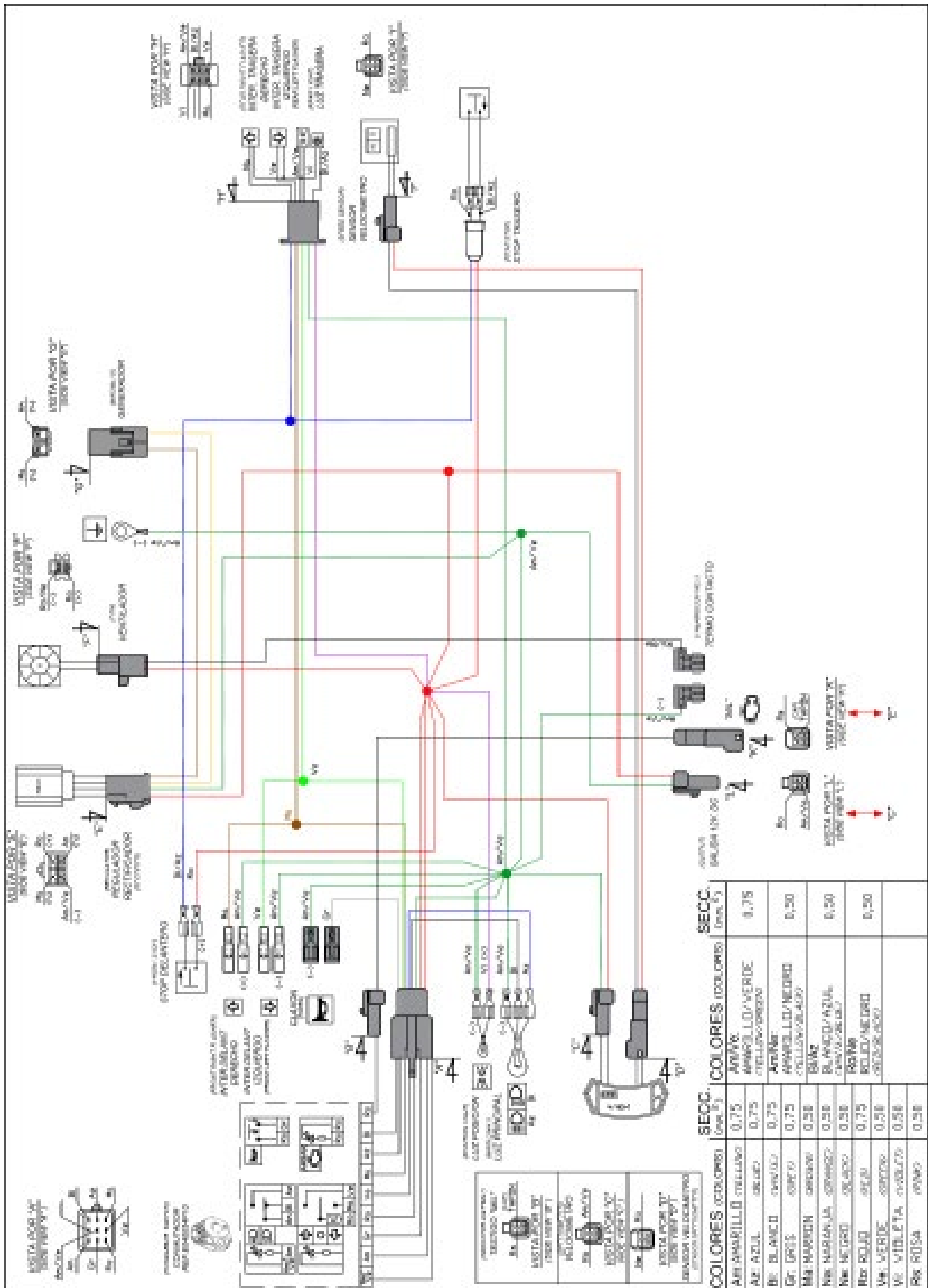
- Current RPM, maximums.
- Time in seconds that the engine is running.
- Minutes running with the MIL on.
- Total minutes of engine running. And the ISO 15031 Diagnostic Trouble Codes (DTC):

P0350 - Ignition coil malfunction.

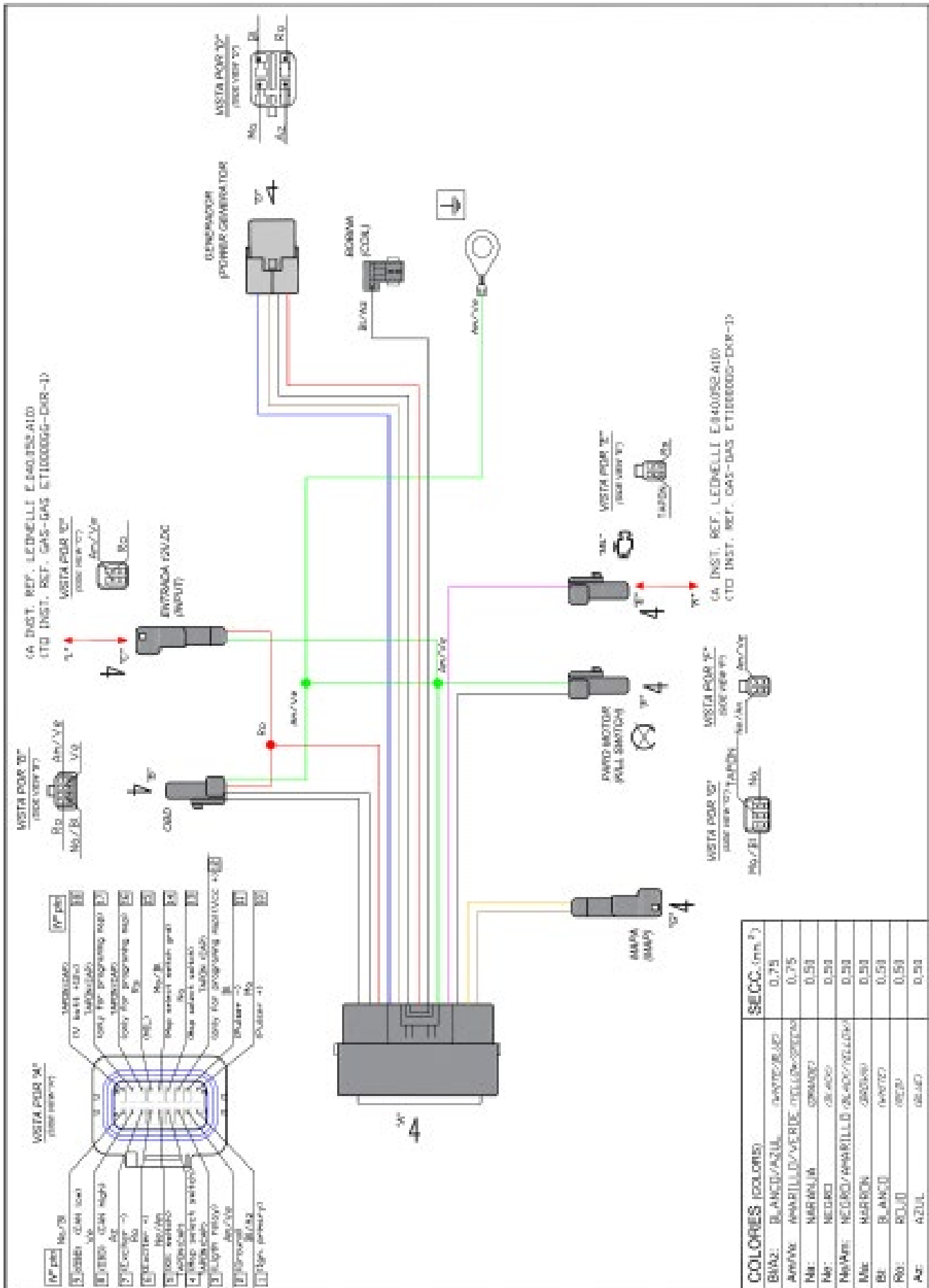
P0315 - Ignition pick-up fault

It is possible to access the DTC and clear all historical errors.

Approved electrical system



Ignition electrical system



Tightening torque

Compare these tightening torques with those in the ISO table. If they do not match, the correct ones are those in the ISO table

	PART NAME	N-m
FRAME	Front wheel axle	40-50
	Swinging arm to frame fixing	60-70
	Shock absorber top fixing	40-50
	Shock absorber bottom fixing	40-50
	Tie rod fixing	40-50
	Handlebars	18-25
	Hand levers	7-10
	Radiator fixing	7-10
	Front fin bridge	7-10
	Brake pedal	27-32
	Muffler fixing	18-25
	Rear wheel axle	40-50
	Rear brake caliper fixing	27-32
	Front brake caliper fixing	27-32
	Exhaust elbow fixing	27-32
	Engine fixing	18-25
Rear brake pump fixing	7-10	

	PART NAME	N-m
ENGINE	Spark plug	11
	Ignition fixing	7-8
	Clutch fixing	7-8
	Cylinder stud fixing	25
	Reed fixing	7-8
	Clutch mass fixing	3-4
	Semi-crankcase fixing	7-8
	Water pump cover fixing	7-8
	Clutch cover fixing	7-8
	Flywheel fixing	40
	Water fitting	10
	Ignition cover	7-8
	Engine drain plug	12
	Kick-starter pedal screw	12-13
	Gear shift pedal screw	7-8
	Cylinder head screws	11.5-13
	Cylinder nut	25

Storage

STORAGE

When the motorcycle needs to be stored for a long period of time, you should:

- Thoroughly clean the motorcycle.
- Start and run the engine for about 5 minutes to heat the transmission oil and then drain it (see the 'Draining the crankcase' section on p. 20).
- Put in new transmission oil.
- Empty the fuel tank (if left for a long time, petrol deteriorates).
- Lubricate the chain and all cables.
- Put oil on all unpainted metal surfaces to prevent rust, but avoid getting it on the brakes and rubber parts.
- Wrap the exhaust pipe with a plastic bag to prevent rusting.
- Place the motorcycle in such a way that the two wheels do not touch the ground (if this is not possible put cardboard underneath the wheels).
- Cover the motorcycle to protect it from dust and dirt.

To put it into operation after storage:

- Remove the plastic bag from the exhaust pipe.
- Tighten the spark plug.
- Fill up the fuel tank.
- General lubrication.
- Check tyre pressure, inflate them to the correct pressure if necessary.



To avoid excessive ageing of the plastic and other washable parts of the motorcycle, we recommend careful cleaning of them. If you use high pressure and/or temperature water equipment, take care to keep the water jet at least 30 centimetres away from the surfaces to ensure that the plastic stays shiny and the stickers that decorate the motorcycle are not removed.

Multifunction



Multifunction marker (only on approved models)

The multifunction device is water resistant and consists of a red backlit LCD screen



WARNING

The multifunction device is water resistant but not submersible. Do not wash with pressurised water. Do not leave the device in direct sunlight when the motorcycle is not being used. Avoid contact with petrol, degreasers or other chemical cleaners as they could damage the device. Remember to always pay attention to the road when you are riding.

- **Total distance travelled** from 0.0 to 99999.9 km



- **Speedometer**, up to 199 km/h
- **Units of measurement**, kilometres or miles, depending on the reference of the device.



- * The speed displayed is updated every 0.5 sec
- *The units of measurement cannot be changed, they depend only on the model purchased.

Troubleshooting

TROUBLESHOOTING

NOTE

This is not an exhaustive list of faults, just some of the most common.

	FAULT	CAUSE	SOLUTION
1	Engine does not run	<ul style="list-style-type: none"> - Seized crankshaft. - Seized cylinder / piston / crank pin bearing. - Seized transmission assembly. - Motorcycle inactive for long time - Dirty or wet spark plug. - Flooded engine. - Incorrect air / petrol mixture. - Open exhaust valve 	<ul style="list-style-type: none"> - Go to a specialized workshop. - Go to a specialized workshop. - Go to a specialized workshop. - Drain old fuel from tank. When fuel tank full of new fuel, it will start immediately. - Dry spark plug or change it. - To vent engine, accelerate to maximum and operate kick-start pedal 5 to 10 times. Then start engine as described above. If engine does not start, unscrew spark plug and dry. - Clean fuel tank ventilation. Adjust air filter duct. - Check exhaust valve and correct.
2	Engine starts but then stops	<ul style="list-style-type: none"> - Incorrect air supply. - Lack of fuel. 	<ul style="list-style-type: none"> - Close choke. Clean fuel tank ventilation. Adjust air filter duct. - Fill fuel tank.
3	Engine overheats	<ul style="list-style-type: none"> - Insufficient coolant in circuit. - Radiator dirty or partially clogged. 	<ul style="list-style-type: none"> - Add coolant and check watertightness of cooling system. - Clean radiator fins or replace it.
4	Engine functions unevenly	<ul style="list-style-type: none"> - Dirty, broken or incorrectly tightened spark plug. - Problem with spark plug cap or cable has insufficient contact with cap. - Damaged ignition rotor. - Water in fuel. 	<ul style="list-style-type: none"> - Check condition of spark plug and clean, tighten or replace. - Check condition of spark plug cap. If deteriorated, change it. - Change rotor. - Drain fuel from tank and add new.
5	Engine lacks power or accelerates badly	<ul style="list-style-type: none"> - Fuel supply faulty. - Dirty air filter. - Damaged or leaking exhaust. - Dirty carburettor jets. - Worn or damaged crankshaft bearings. - Clutch slips. 	<ul style="list-style-type: none"> - Clean and check fuel system. - Clean or replace air filter. Check. - Check exhaust system for damage, renew fibreglass thread in muffler if necessary. - Remove carburettor and clean jets. - Change crankshaft bearings. - Check clutch. - Go to a specialized workshop.

Troubleshooting

	FAULT	CAUSE	SOLUTION
6	Engine makes strange noises	<ul style="list-style-type: none"> - Ignition problem. - Overheating. 	<ul style="list-style-type: none"> - Go to a specialized workshop. - See section 5.
7	Exhaust backfires	<ul style="list-style-type: none"> - Presence of carbon in combustion chamber. - Poor quality petrol or wrong octane rating. - Spark plug in poor condition or with wrong specifications. - Damaged exhaust system gaskets 	<ul style="list-style-type: none"> - Clean combustion chamber. - Drain petrol and add new with higher octane rating. - Replace spark plug with new or more appropriate one. - Check if exhaust system damaged. Gaskets must be in perfect condition, if not, change them for new ones.
8	Exhaust emits white smoke	<ul style="list-style-type: none"> - Damaged cylinder head O-ring. (Water leaks into cylinder). - Incorrectly adjusted throttle valve cable. 	<ul style="list-style-type: none"> - Replace O-ring on cylinder head cover. - Go to a specialized workshop. - Adjust throttle valve cable.
9	Exhaust emits brown smoke	<ul style="list-style-type: none"> - Clogged air filter. - Main jet too high. 	<ul style="list-style-type: none"> - Clean or change air filter. - Go to a specialized workshop. - Check main jet. Go to a specialized workshop.
10	Gears do not engage	<ul style="list-style-type: none"> - Clutch does not detach. - Bent or seized shift fork - Seized gear in transmission. - Damaged gear shift lever. - Broken or loose selector position spring. - Broken selector reverse mechanism spring. - Broken shift drum. - Broken gear selector ratchet spring 	<ul style="list-style-type: none"> - Contact specialist garage. - Change shift fork. - Go to a specialized workshop. - Replace gear shift lever. - Adjust selector position spring or change. - Replace selector reverse mechanism spring. - Change shift drum. - Replace selector ratchet spring.
11	Gears jump	<ul style="list-style-type: none"> - Worn shift fork in gears. - Worn gear groove. - Damaged gear lugs. - Worn drum shift groove. - Worn shift fork axle. - Broken selector drum position spring. - Broken gears. 	<ul style="list-style-type: none"> - Change shift fork. - Change. - Go to a specialized workshop. - Change. - Go to a specialized workshop. - Change. - Go to a specialized workshop. - Change axle. - Go to a specialized workshop. - Change spring. - Go to a specialized workshop. - Contact specialist garage.
12	Clutch slips	<ul style="list-style-type: none"> - No play on clutch lever - Worn clutch plate. - Worn clutch hub. - Broken or weak clutch spring. - Worn clutch discs. 	<ul style="list-style-type: none"> - Contact specialist garage. - Replace clutch plate. - Go to a specialized workshop. - Change clutch hub. - Adjust or change clutch spring. - Change clutch discs. Go to a specialized workshop.

Troubleshooting

	FAULT	CAUSE	SOLUTION
13	Motorcycle unstable	<ul style="list-style-type: none"> - Cable makes turning handlebars difficult. - Excessively tight steering shaft nut. - Damaged or worn steering bearings. - Bent steering shaft. 	<ul style="list-style-type: none"> - Separate cable or loosen slightly. - Loosen steering shaft nut - Replace steering bearings. - Change steering shaft. - Go to a specialized workshop.
14	Excessively hard shock absorption	<ul style="list-style-type: none"> - Excessive oil in front fork. - Excessively viscous oil in front fork. - Bent front fork. - Excessive tyre pressure. - Badly adjusted shock absorber. 	<ul style="list-style-type: none"> - Remove excess oil to reach proper level. - Drain oil from fork and refill with oil of suitable viscosity. - Change front fork. - Go to a specialized workshop. - Check tyre pressures. - Adjust rear shock absorber.
15	Excessively soft shock absorption	<ul style="list-style-type: none"> - Insufficient oil in front fork. - Insufficiently viscous oil in front fork. - Bent front fork. - Badly adjusted shock absorber. 	<ul style="list-style-type: none"> - Add oil to front fork to reach proper level. - Drain oil from fork and refill with oil of suitable viscosity. - Change front fork. - Go to a specialized workshop. - Adjust rear shock absorber.
16	Motorcycle makes abnormal noises	<ul style="list-style-type: none"> - Badly adjusted chain. - Worn chain. - Worn rear sprocket teeth. - Insufficient lubrication of chain. - Misaligned rear wheel - Insufficient oil in front fork - Weak or broken front fork spring. - Worn brake disc. - Badly placed or glazed pads. - Damaged cylinder. - Badly tightened supports, nuts or bolts 	<ul style="list-style-type: none"> - Adjust chain. - Replace chain, rear sprocket and final drive system pinion. - Change rear sprocket. - Lubricate with appropriate lubricant for chains. - Align rear wheel. - Go to a specialized workshop. - Add oil to front fork to reach proper level. - Replace front fork spring. - Replace brake disc. - Reposition or change pads. - Replace damaged cylinder. - Check and adjust to appropriate tightening torques.
17	Handlebars vibrate	<ul style="list-style-type: none"> - Worn tyre, swinging arm or needle bearings. - Off-centre rim. - Misaligned wheel. - Excessive tolerance in steering shafts. - Loose handlebar bracket and steering shaft nut. 	<ul style="list-style-type: none"> - Replace worn parts with new ones. - Centre rim. - Check rim spoke tension. Readjust if necessary. - Tighten handlebar bracket and steering shaft nut to appropriate tightening torques. - Tighten handlebar bracket and steering shaft nut to appropriate tightening torques.

Troubleshooting

	FAULT	CAUSE	SOLUTION
18	Motorcycle tends to lean to one side.	<ul style="list-style-type: none">- Bent chassis.- Incorrectly adjusted steering.- Bent steering shaft.- Bent front fork.- Misaligned wheels.	<ul style="list-style-type: none">- Change frame. - Go to a specialized workshop.- Adjust steering. - Go to a specialized workshop.- Change steering shaft. - Go to a specialized workshop.- Change front fork.- Align wheels.
19	Brakes do not work properly	<ul style="list-style-type: none">- Worn disc.- Loss of brake fluid. - Impaired brake fluid. - Broken pump piston.- Incorrectly adjusted brakes.	<ul style="list-style-type: none">- Change disc.- Check brake circuits. Change those that are damaged or broken.- Drain brake fluid and replace with new. Recommended by manufacturer.- Replace pump piston.- Adjust brakes.

Final thoughts

FINAL THOUGHTS

PREVENTATIVE ADVICE

Take the time to perform all necessary checks and maintenance on your motorcycle before taking it out for a ride. In some parts of this manual, information is provided about work to be carried out in a GAS GAS authorised garage. For this reason and in order to increase the life of your motorcycle, periodic checks of the motorcycle must only be carried out by experts in GAS GAS's After-Sales Service.



Failure to carry out proper maintenance of the motorcycle and ignoring problems, however small, can result in serious physical injury or even death.



To avoid excessive ageing of the plastic and other washable parts of the motorcycle, we recommend careful cleaning of them. If you use high pressure and/or temperature water equipment, take care to keep the water jet at least 30 centimetres away from the surfaces to ensure that the plastic stays shiny and the stickers that decorate the motorcycle are not removed.

SAFE OPERATION OF YOUR MOTORCYCLE

Safe riding of a motorcycle does not only depend on the machine. Also important are the prudence and intelligence of the rider. We recommend that you enjoy your favourite sport with the necessary equipment (helmet, pads and guards, boots, etc.).

LEGAL NOTICES

In the interests of technical development, we reserve the right to modify the construction, equipment and accessories of the motorcycle. Measurements, weight and power data are understood to include the respective tolerances. Depending on the amount of equipment and accessories of your motorcycle, as well as the export versions, there may be variations regarding descriptions and illustrations, meaning that the photographs shown in this manual may not correspond to the model purchased. Because of this, there can be no liability except in cases of error, misprint or omission.

GAS GAS reserves the right to make changes and/or modifications without prior notice.



TXT SERIES