

CAS GAS

TXT PRO '08

USER MANUAL

GAS GAS thank you for the trust you have placed in us.

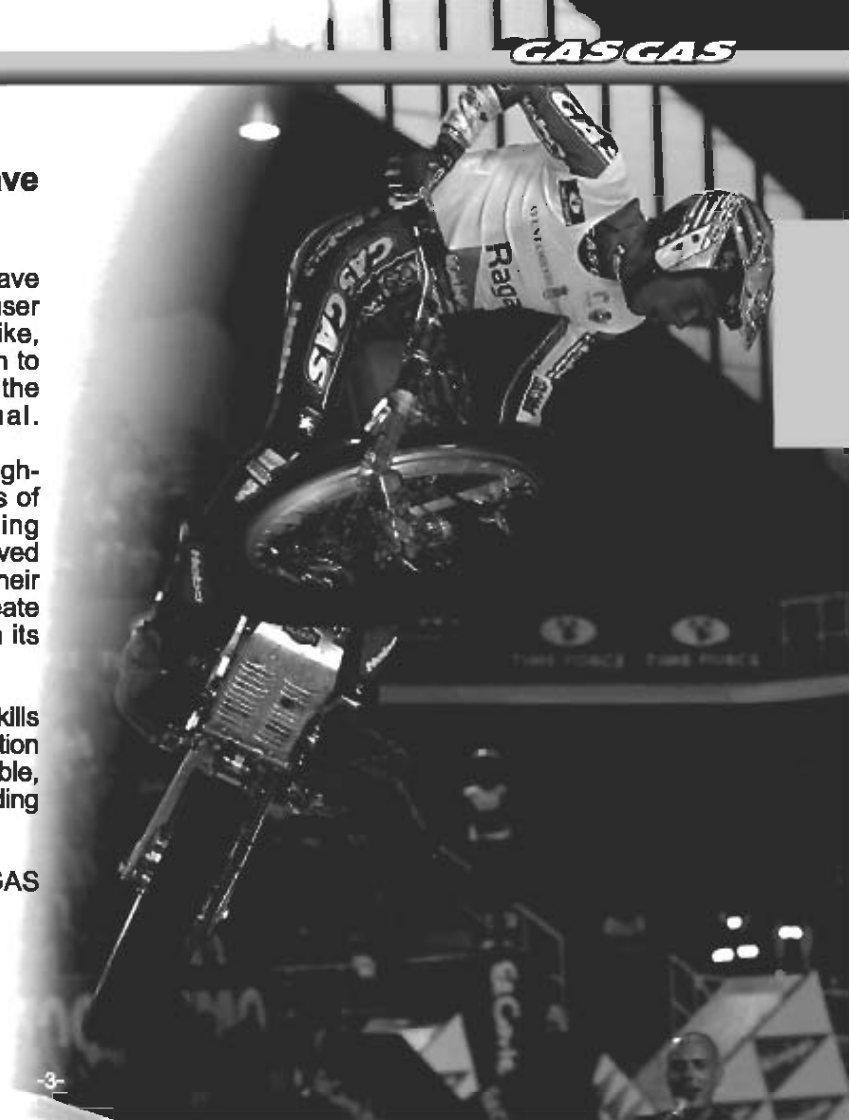
By choosing the new GAS GAS TXT Pro 2008 you have become part of the great GAS GAS family and, as a user of the number one manufacturer of off-road motorbike, you deserve the distinguished treatment that we wish to offer to you both in our after-sale relationship and in the explanations that we provide in this manual.

Our Pro 2008 is a bike conceived for the practice of high-competition trial. It is actually the fruit of many years of competition and experimentation in this demanding discipline, as well as the many great successes achieved thanks to great trial riders who have contributed with their expertise to the basic data that have allowed us to create a high-level motorbike, a GAS GAS which counts on its low weight as a significant key factor.

Congratulations for making the right choice. With your skills at the commands of this motorbike, an adequate preparation and the indispensable servicing for this to be highly reliable, you will be able to enjoy the most comfortable and rewarding trial practice.

Thank you for your trust in us, and welcome to GAS GAS Motorbikes.

GAS GAS MOTOS, S.A.
August - 2007



Important notice

Read this Manual carefully. You will find it contains all the necessary information for your safety, and that of third persons, as well as guaranteeing the correct conservation and maintenance of the GAS GAS motorbike you have just bought.

You will find all the necessary instructions for the correct riding and control of this vehicle are set out below. Each message is preceded by a sign whose meaning is the following:



Be careful! This sign introduces all those rules and precautionary measures necessary to avoid slight or severe injuries, or even the death of the user should these instructions not be correctly followed.



Look out! This sign introduces special warnings to avoid damaging your motorbike. Should these warnings not be heeded, the guarantee may be automatically invalidated.



Various notes. These are the indications necessary for the optimal control and adjustment operations, together with those tasks of conservation and maintenance of the motorbike in order that you may obtain the greatest possible satisfaction from your vehicle.

The aim of this Manual is to help the user to minimise or avoid possible damage to people, property, the environment, and naturally to his/her new motorbike. For this reason, all the information presented here is based on data obtained from the latest models put on the market just before the publication of this Manual. However, GAS GAS Motos, S.A. reserves the right to make modifications without any prior warning being given to consumers and without incurring any additional obligations in so doing. Your local dealer will also provide you with any information as might be deemed necessary.

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WARRANTY TERMS AND CONDITIONS

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

Warranty terms of the manufacturer GASGAS 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 referred to as the "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 the 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 the 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 brought to 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 Users' 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 User's Manual.
- e)** The vehicle has been altered or modified in any way or fitted with components other than those expressly authorised by 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 inappropriate 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 the 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 of 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 unaltered, 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.

Recommendations for the good working of your GAS GAS.

- Eight hours of running-in are recommended in order to guarantee the correct working of the engine.
- It is important to warm the engine to the optimum working temperature every time the motorbike is used.
- Synthetic or semi-synthetic 2-stroke oil should be used at 2% in the oil/petrol mix.



GAS GAS

RECOMMENDS THE USE OF OIL:



TECHNICAL SPECIFICATIONS**ENGINE**

2 stroke, single cylinder, direct reed valve crankcase induction. Liquid cooled.

125 cc. engine

Cylinder size 124,8 cc.
Bore and stroke 54 x 54.5 mm.

200 cc. engine

Cylinder size 175,3 cc.
Bore and stroke 64 x 54,5 mm.

250 cc. engine

Cylinder size 247,7 cc.
Bore and stroke 72,5 x 60 mm.

280 cc. engine

Cylinder size 272,2 cc.
Bore and stroke 76 x 60 mm.

300 cc. engine

Cylinder size 294,1 cc.
Bore and stroke 79 x 60 mm.

Carburettor, diameter of the diffusor

26

Lubrication system

Mixture (50:1)(2%)

Ignition system

Digital magnetic flywheel CDI

TRANSMISSION

Transmission type

6 gears, Four / Six system by GAS GAS* (Patented).

Clutch type

Hydraulic command, 1/3 discs, variable progressive with diaphragm system by GAS GAS* (Patented).

Driving system

By chain

Gear ratio

1st. 2,996 (35x27x28/16x24x23)

2nd. 2,571 (36/14)

3th. 2,187 (35/16)

4st. 2,112 (36x23x24/14x28x24)

5st. 1,125 (27/24)

6th. 0,821 (23/28)

Primary reduction ratio	2,777 (75/27)
Final reduction ratio	3,818 (42/11)
Overall drive ratio	8,704 (6th. gear)
Transmission oil	550 cc.
Capacity	10W40 API SF o SG.
Type	

FRAME

Type	Elliptic profile made with Cr-Mo.
Tyres	2,75 x 21" Trial
	4,00 x 18" Trial tubeless.
Suspension	Adjustable tele-hydraulic fork ø 40 mm. (125 / 200).
	Adjustable tele-hydraulic fork ø 40 mm with aluminium bars (250 / 280 / 300)
	Variable progressive system with mono-shock multiaadjustable.
Suspension stroke	177 mm.
	164 mm.
Front fork oil	SAE 5.
Front fork oil level	ø 40 mm. (125 / 200) 160 mm. air chamber
	ø 40 mm. (250 / 280 / 300) 180 mm. air chamber

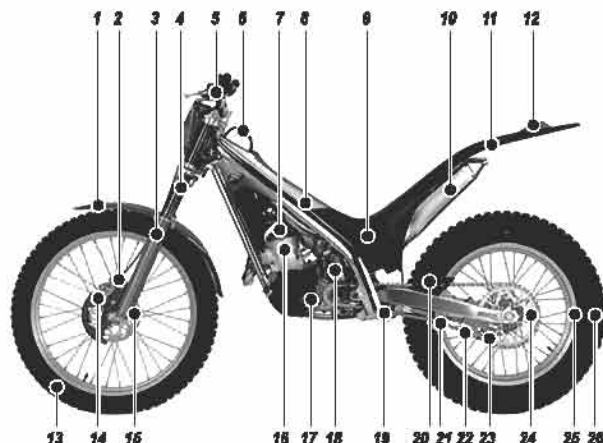
BRAKES

Type	Disc brake.
Disc diameter	ø185 mm. 4 piston calipers.
	ø150 mm. 2 piston calipers.

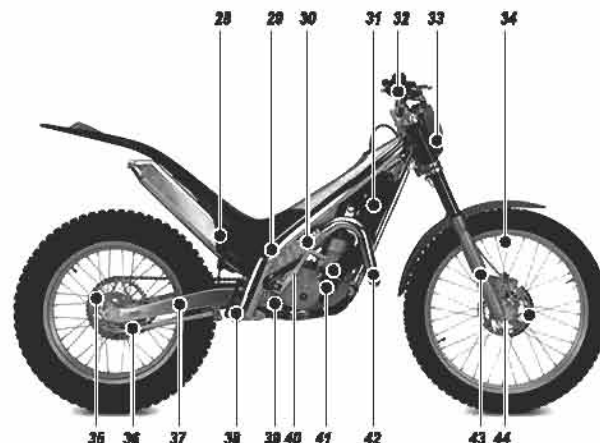
DIMENSIONS

Overall height	1180 mm.
Overall width	820 mm.
Seat height	650 mm.
Ground clearance	315 mm.
Wheelbase	1330 mm.
Fuel tank capacity	3,1 liters.

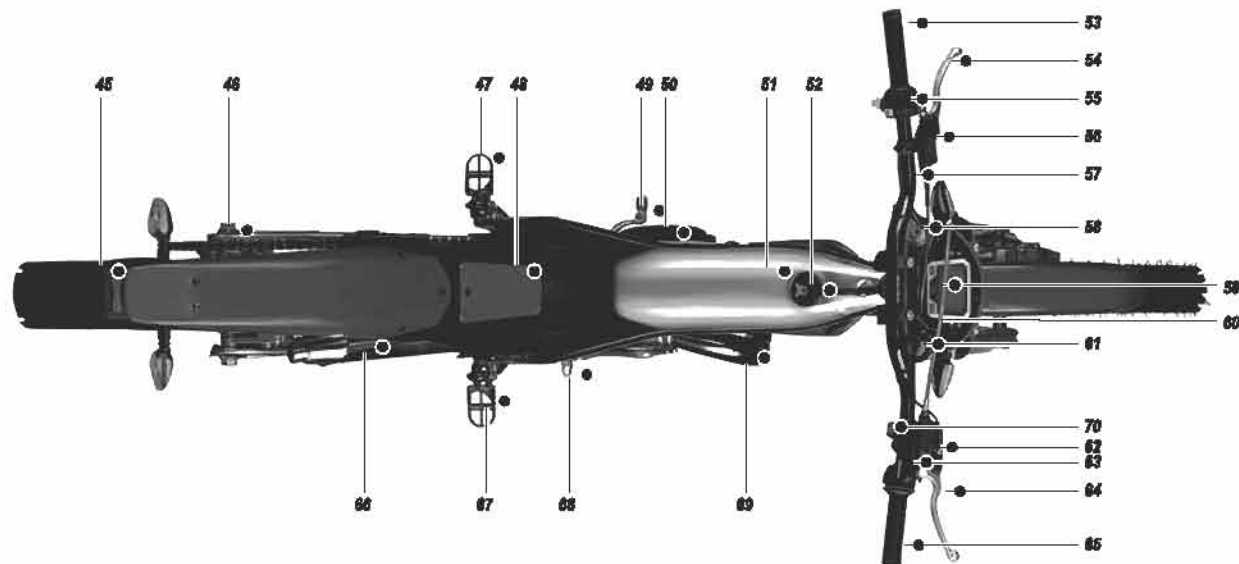
(Specifications subject to change without notice, which may not be applicable in every country).



- | | |
|--------------------------------|---------------------------|
| 1 Front fender | 12 Rear headlight |
| 2 Front brake caliper | 13 Front tyre |
| 3 Front suspension left bottle | 14 Front brake disc cover |
| 4 Front suspension bar | 15 Front brake disc |
| 5 Front brake lever | 16 Cylinder |
| 6 Breather hose | 17 Gear pedal |
| 7 Spark plug | 18 Carburettor |
| 8 Fuel tank | 19 Left foot peg |
| 9 Filter box | 20 Chain guide |
| 10 Silencer | 21 Chain slide |
| 11 Rear fender | 22 Chain |
| | 23 Rear sprocket cover |



- | | |
|-------------------------|----------------------------------|
| 24 Rear sprocket | 37 Swingarm |
| 25 Rear rim | 38 Right foot peg |
| 26 Rear tyre | 39 Rear brake pedal |
| 28 Exhaust protection | 40 Kickstart pedal |
| 29 Frame | 41 Water pump |
| 30 Exhaust | 42 Exhaust pipe elbow |
| 31 Radiator | 43 Front suspension right bottle |
| 32 Handlebar | 44 Front wheel axle |
| 33 Headlight | |
| 34 Front tyre air valve | |
| 35 Front brake disc | |
| 36 Sidestand lever | |



- 45 Rear fender
- 46 Axis nut rear wheel
- 47 Left foot peg
- 48 Air filter box cover
- 49 Shift pedal
- 50 Ignition cover
- 51 Fuel tank
- 52 Fuel tank cap
- 53 Left handle grip

- 54 Clutch lever
- 55 Light controls
- 56 Clutch pump
- 57 Handlebar
- 58 Left bottle regulation
- 59 Multifunction
- 60 Warning indicators
- 61 Right bottle regulation
- 62 Front brake pump

- 63 Throttle cover
- 64 Front brake lever
- 65 Throttle grip
- 66 Silencer
- 67 Right foot peg
- 68 Rear brake pedal
- 69 Exhaust pipe elbow
- 70 CDI Switch

The maintenance table and adjustments are easy to carry out and must be done to insure the motorcycle is in good running condition.

MAINTENANCE TABLE					
Part	Check / Inspect	Adjust	Replace / Change	Clean	Grease / Lubricate
Rear shock absorber	Every year	-	Every 2 years	-	-
Transmission oil	30 hours	-	60 hours	-	-
Front fork oil	-	-	60 hours	-	-
Brake adjust	Every race	If is necessary	-	-	-
Swingarm and connecting rod	Every race	-	If is damaged	Every race	Every cleaning
Spark plug	Every race	30 hours	60 hours	15 hours	-
Throttle cable	Every race	If is necessary	If is damaged	If is necessary	Every cleaning
Chain	Every race	If is necessary	If is damaged	Every race	Every cleaning
Reed valve box	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 cleaning
Cylinder and cylinder head	60 hours	-	Every year	-	-
Brake	Every race	If is necessary	If is damaged	-	-
Brake disc	Every race	First 5 hours	If is damaged	Every 2 races	-
Clutch discs	-	-	If is damaged	-	-
Clutch	Every race	-	If is damaged	-	-

NOTE: (*) Inspect or do this operations only it's necessary.

MAINTENANCE TABLE					
Part	Check / Inspect	Adjust	Replace / Change	Clean	Grease / Lubricate
Exhaust	Every race	-	500 hours	-	-
Exhaust silencer fiber	-	-	200 hours	-	-
Air filter	Every race	-	If is damaged	Every race	Every cleaning
Steering assembly	Every race	If is necessary	-	-	-
Brake hose	Every race	If is necessary	Every 2 years	-	Every cleaning
Cooling fluid	Every race	If is necessary	Every year	-	-
General lubrication	Every race	-	-	Every race	Every cleaning
Front and rear rims	Every race	-	If is damaged	Every race	-
Tyres	Every race	-	If is damaged	Every race	-
Brake oil level	Every race	If is necessary	-	-	-
Chain guide slide	Every race	-	If is damaged	-	-
Kickstart and shift pedal	Every race	-	If is damaged	-	Every cleaning
Brake piston pump and its dustcover	-	-	If is damaged	-	-
Brake piston and its dust-cover	-	-	If is damaged	-	-
Piston and piston rings	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	-	-
Exhaust o'ring	-	-	If is damaged	-	-
Bolts, nuts & fasteners	Every race	If is necessary	If is damaged	-	-
Fuel hose	Every race	If is necessary	If is damaged	-	-
Radiator hose set and connections	Every race	If is necessary	If is damaged	-	-

NOTE: (*) Inspect or do this operations only if it's necessary.

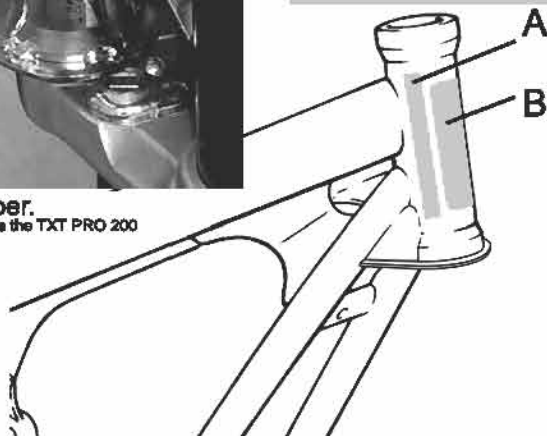


Serial number.

The model shown is the TXT PRO 200

The new GAS GAS TXT Pro carries the appropriate certification plate whose details should coincide with those on the accompanying documentation and the frame number stamped on the steering arm.

Homologation conditions are detailed on sheets 49 to 50.



Enter the vehicle identification number (serial number), the particulars shown on the model label, and the ignition-key identification number in the spaces provided, in order to simplify your future orders for spare parts or as a useful reference in the event of your vehicle being stolen.

Serial number (A)

This has been printed on the steering arm. It shows the frame number used for registering this moped.

SERIAL N

Homologation plate (B)

The moped carries a certification plate showing a serial number that has also been printed on the front, and this information must coincide with that contained in the vehicle documents. We recommend that this information be entered in the box below.

HOMOLOGATION P

Key identification numbers

The moped carries one key set. The identification number appears right on the key joints. This number may be quoted when ordering a spare to replace a lost key.

KEY NUMBER



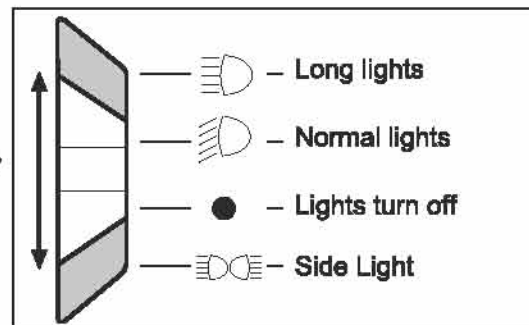
The control panel includes lighting, turn signal, horn and engine stop switches.



The indicator control has been located on the underside of the left-hand grip. This is an orange-colour button. To start the right-hand indicator, move this switch to the right; and likewise, to start the left-hand indicator, move this switch to the left.



All light controls have been located on the left-hand grip; the various positions available are reached by sliding the main switch, which is on the left end of the grip.



Light controls diagram.



Located under the suspension lower right side bracket. For correct operation, it is necessary to turn the handlebar completely towards the right until it stops, insert the key in the groove, turn it in counterclockwise direction, press and to turn it again in clockwise direction. The key can now be removed and the steering will remain locked.



Never leave the key in the locked latch. If the steering is turned with the key in the latch it may be damaged and the locking system could be damaged.



Fuel tank capacity : 3,1 liters

Use premium gasoline with an octane rating equal to or higher than that shown in the table.

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



Gasoline is extremely flammable and can be explosive under certain conditions. Always stop the engine and do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light.



Never mix vegetal and mineral oils together. Too much oil may cause an excessive amount of fumes and spark-plug dirt. Too little oil may cause engine damage or early wear.



This engine is designed to burn a mixture of combustible fuels, lead free petrol and oil.

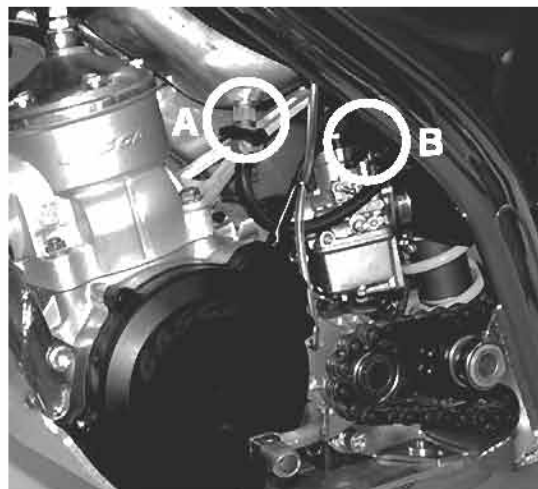


The fuel tank cap is of the quick release type. To open the cap, lift the tab and turn it 1/4 turn in counterclockwise direction. To close it, place cap with the words GAS GAS in the upper position, and turn the tab in clockwise direction. It is important to check periodically the condition of the cap sealing O'ring to insure proper sealing.

GAS GAS

RECOMMENDS SYNTHETIC
2 CYCLE ENGINE OIL:





The position of the fuel tap (A) must be forward rearward for normal operation. When turned upwards, it opens the reserve, downwards it turns off the fuel.

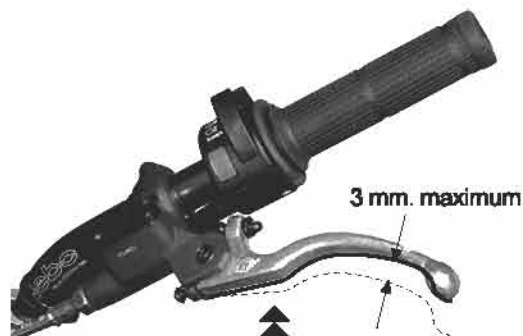


The choke (B) is a device for aiding the engine start if this is cold. The engine will get a good temperature in a short time and it won't damage.



The idle and petrol-air mixture can be adjusted by the screw as shown in the illustration.





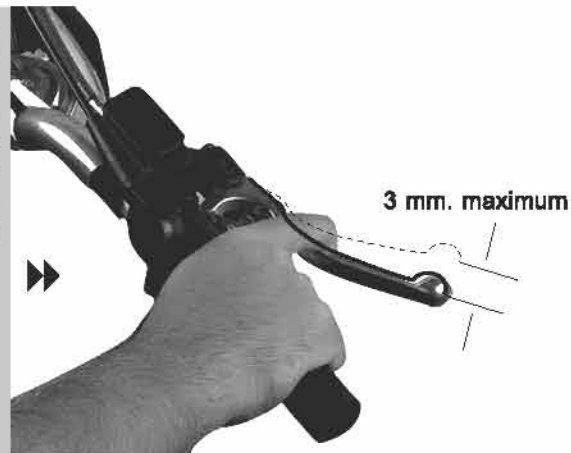
The clutch lever must be adjusted to your liking, but the free play should not exceed 3mm.

This play must never be eliminated.

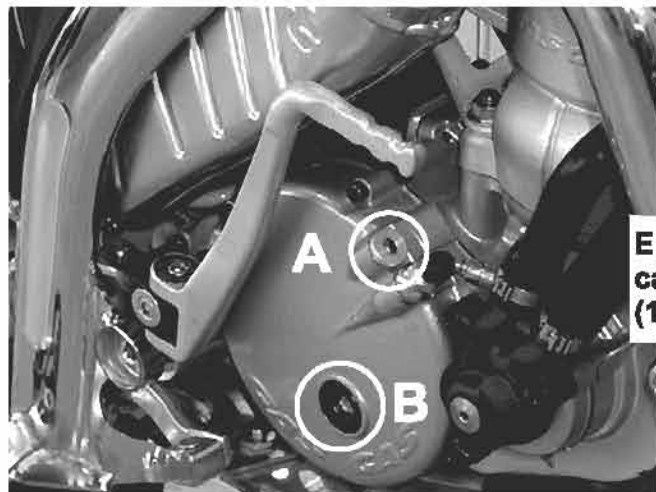


Like the clutch lever, the front brake lever must be in the ideal position. Again, the play must not exceed 3mm,

This play must never be eliminated.



This is the position the kick-start should be in when not being used.



Engine Oil
capacity 550 cc.
(10W40).



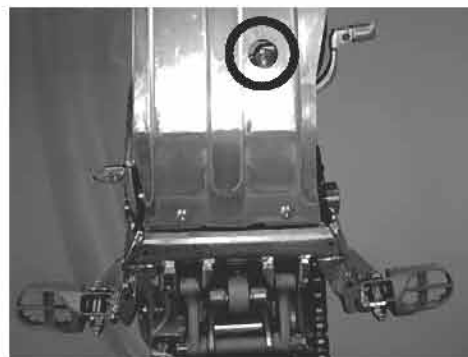
When topping up the oil, open the cap (A).



The engine crankcase drain cap is situated on the lower left-hand side. The drainage hole in the crankcase allows its easy emptying.

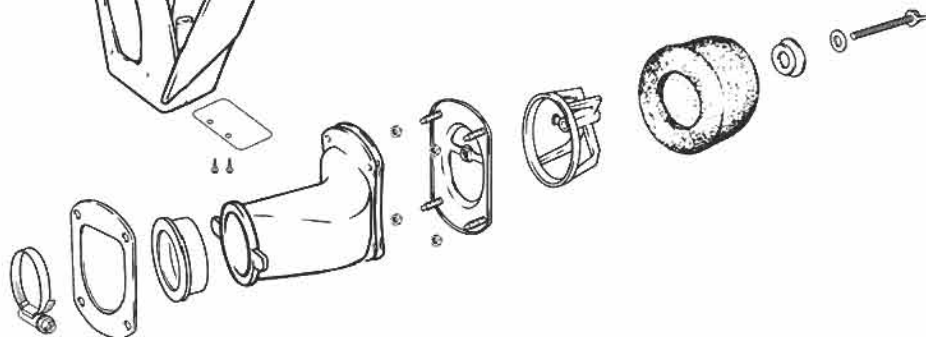
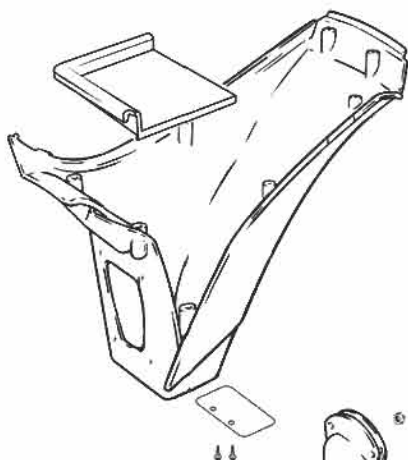


To check the oil level, first make sure the motorbike is perpendicular to the ground. If the bike has been in use, wait a few minutes. To check the oil level, unscrew the cap (B) and examine the level of oil using the dip-stick. The level should be between the marked maximum and minimum levels. If it is too high, drain the excess. If it is too low, add the necessary quantity by opening the oil cap. Use the same type and make of lubricant as that which is already in the engine.



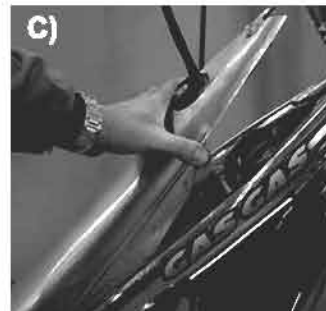
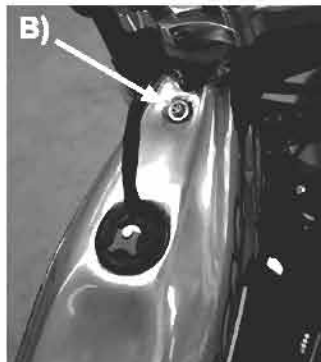


It is important to periodically check the air filter. Open the door set on the side of the motorbike as shown in the photo. Clean with water and detergent, then dry and lubricate with oil designed for filters. Ensure its correct collocation once clean. In the lower part of the filter chamber there is a leaf that acts as the escape valve for the liquids and/or other materials that may build up in the filter chamber. Check this valve is working properly.





Remove the fuel tank, located in the upper area of the chassis, before servicing the motor or any other internal part of the motorcycle. To do this, first check that the gasoline cap and fuel cock are closed properly. Next pull out the fuel tube end (A) which is inserted in the fuel cock. The third step is to unscrew the Allen screw M6 (B) fastening the front upper part of the tank. Once the fuel tank is released, lift it at the front section and remove the tank completely out the inside of the chassis (C).



When filling the radiator, use cooling fluid designed for lightweight alloy motors.



The engine must be cool before removing the radiator cap or when replacing radiator coolant, or severe scalding may result.

Cooling fluid
-30°C



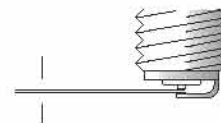


It is necessary to periodically check the spark plug condition. This must be done removing the spark plug from its housing in the upper part of the cylinder head. First disconnect the spark plug cap and remove the spark plug using an adequate wrench. Clean the spark plug with compressed air to remove dirt and prevent foreign material to enter inside the engine compartment.



It is necessary to periodically check the state of the spark plug. The sparking plug distance should be between 0.6 and 0.7mm.

0,6 ~ 0,7 mm.





To carry out any type of operations on and improve access to the carburettor, it is recommended to remove the filter box. You must follow these steps:

- 1.- Loosen the admission port clamp.
- 2.- Unscrew 4 tapered Allen screws M6 which are used to anchor the filter box to the chassis.
- 3.- Pull the filter box straight up just enough until the rear intallation connecting fixture is visible.
- 4.- Disconnect the fixture (Fig. 1).
- 5.- Remove the filter box completely (Fig. 2).

The carburettor is now exposed and can be separated from the motor assembly by loosening the reed box port clamp.

Loosen the two screws of the carburettor upper cover to allow the carburettor body being ready for cleaning (Fig. 3).



Fig. 1

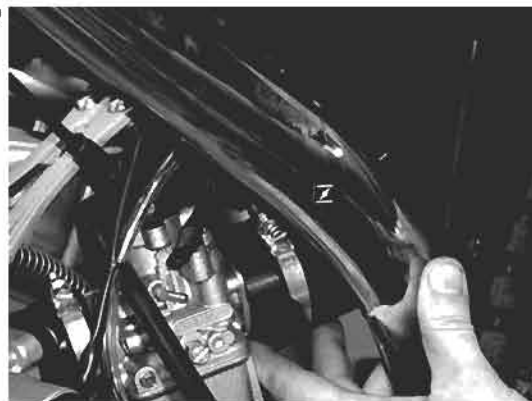
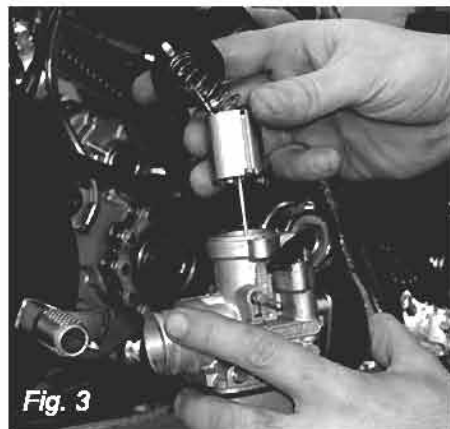
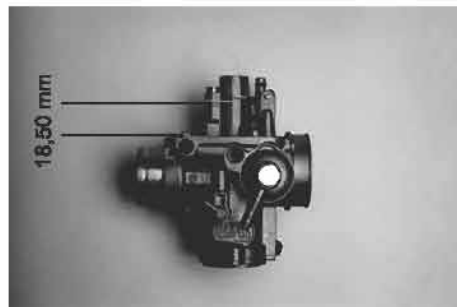


Fig. 2



Extreme precautions must be taken to dry the inside of the carburettor thoroughly. Water droplets, dirt, or other foreign material may enter and damage the reed box and consequently cause damages to the piston and cylinder assembly.



It is important to check the level of petrol within the carburettor. The float should be at 18.5mm.



It is necessary to clean the carburettor very thoroughly. To do so use compressed air.

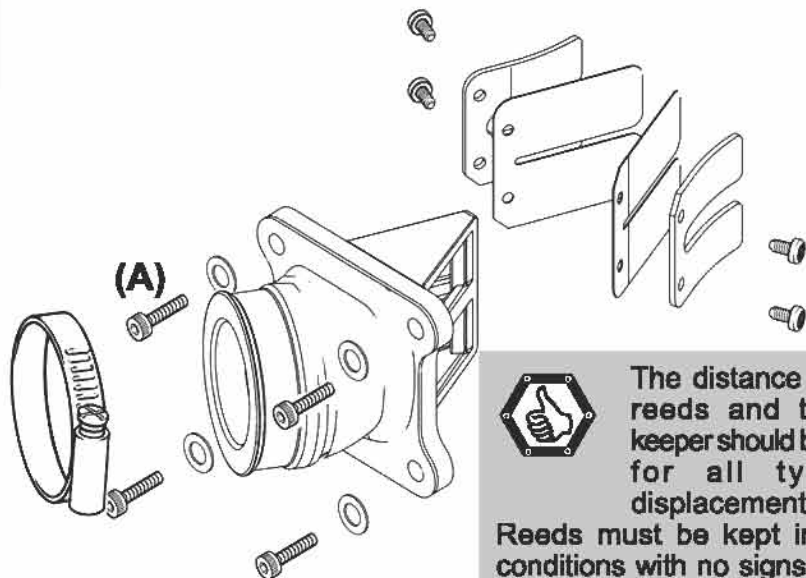


Dismantle and clean periodically the main nozzle after washing the bike, as well as cleaning the inside of the carburettor housing.





The reed box assembly is composed of only one body, the reeds and reed keepers. To inspect the assembly remove it by removing the 4 screws (A) attaching it to the rear of the left and right crankcases.



The distance between reeds and the reed keeper should be 6,5 mm for all types of displacement models.

Reeds must be kept in perfect conditions with no signs of nicks, scratches, broken or folded sections. Otherwise, the reed assembly must be replaced with a new one.



Since this is the last door of access to the inside of the cylinder, special precautions must be taken to keep it in good condition and to monitor its performance periodically. Cover the cylinder bore with a clean shop towel to prevent foreign material to enter the compartment when handling these parts.

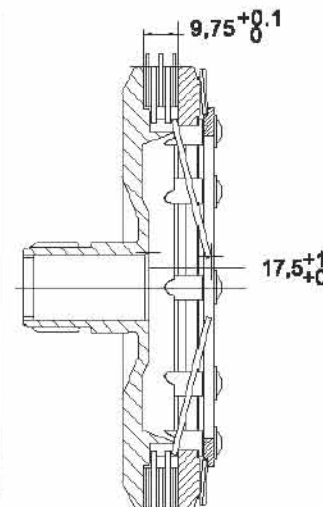
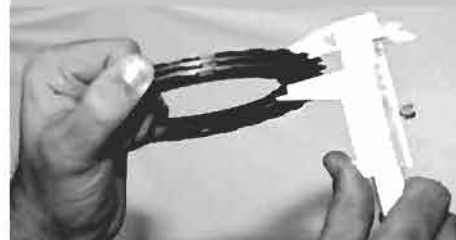




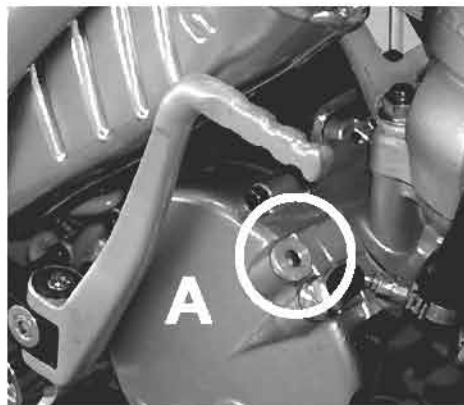
Spring height of the clutch stack should measure between 4,3 and 4,4 mm.



Check clutch discs for possible wear after many hours of use. For correct operation the minimum measure should be between 9,75 to 9,85 mm.

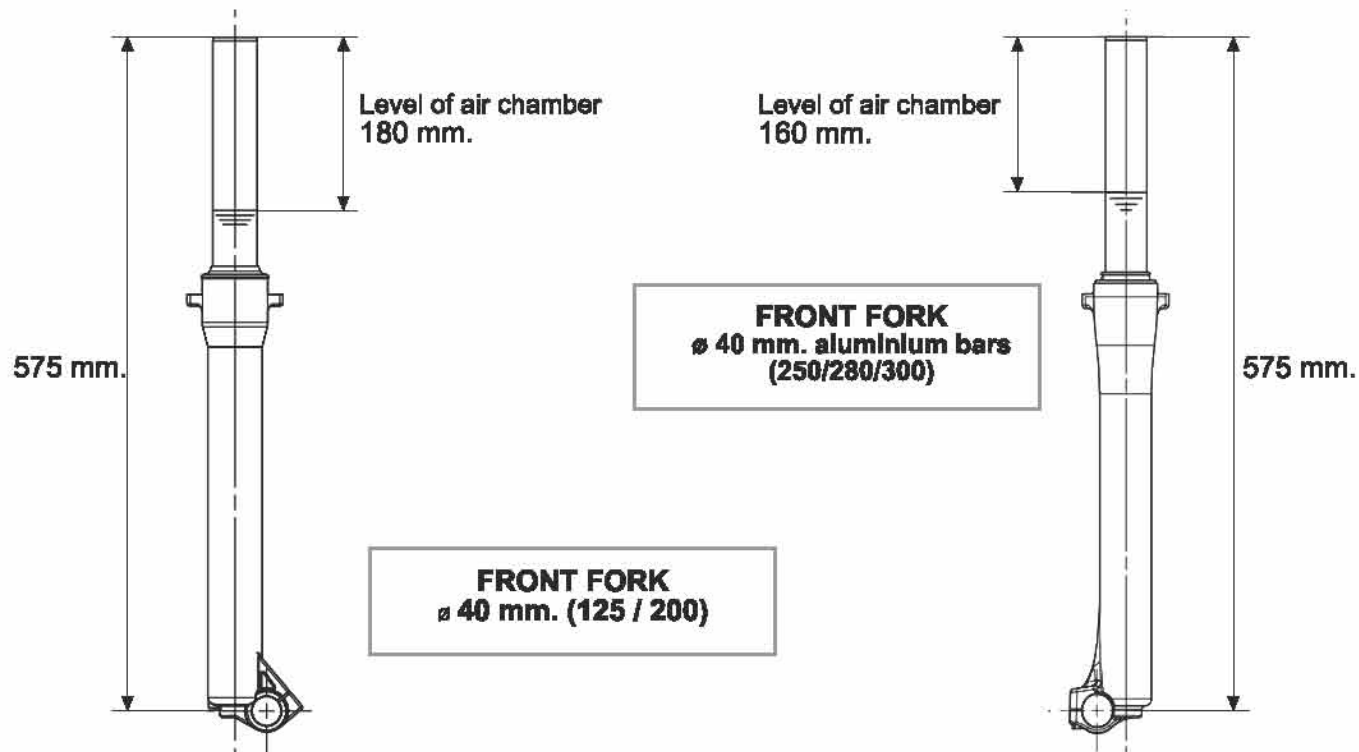


After any removal or assembly operations on the clutch lifter circuit air trapped inside must be purged by connecting an air bleeder.



(A) The circle indicates where the engine oil should be poured in







The front suspension is adjusted manually

Right (hydraulic extension).
Left (hydraulic compression).



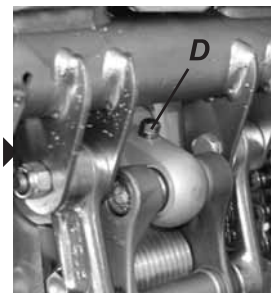
The regulation is done by turning one screw (**A**) located in the axis of the suspension tube cap. The bleeder (**B**) is used to purge air that may be trapped inside the slider.

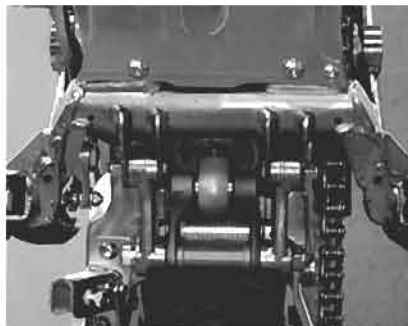
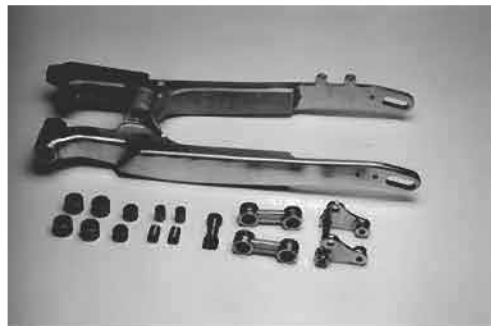


The preloading of the damper spring is measured by the rotation of the toothed rings (**C**) with the aid of a special wrench.



The shock absorber compression can be adjusted by turning the screw (**D**) located in the lowest area of the shock absorber.

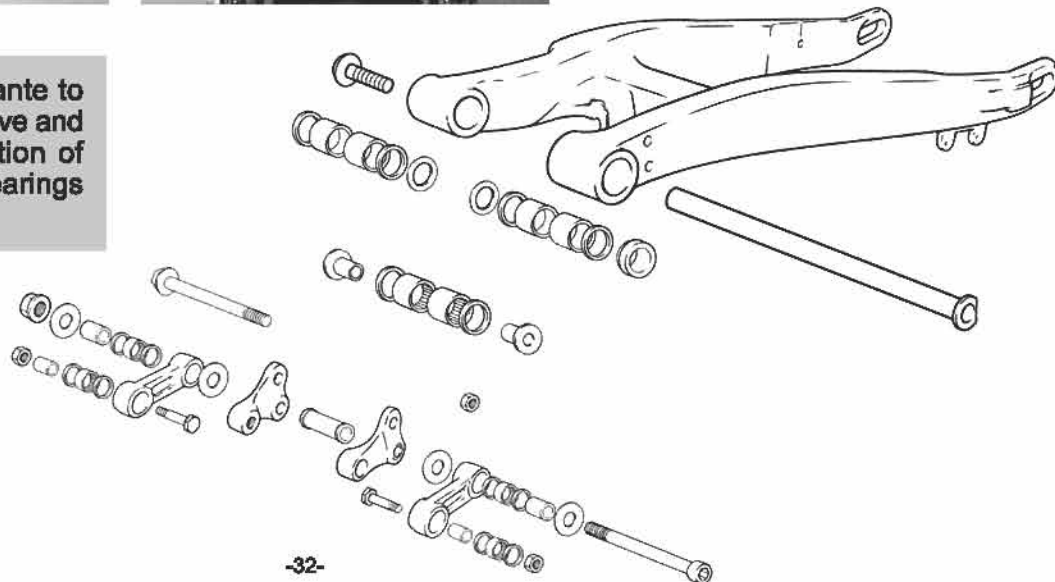


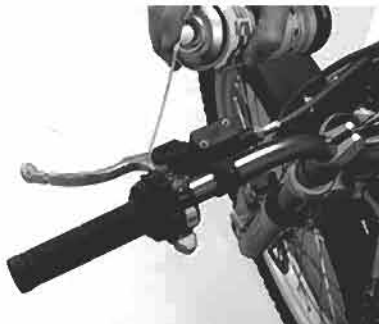


◀ The link adjustments at the lower part of rear suspension must be periodically cleaned, verified and lubricated with grease.



It is very important to periodically remove and verify the condition of the swingarm bearings and holders.



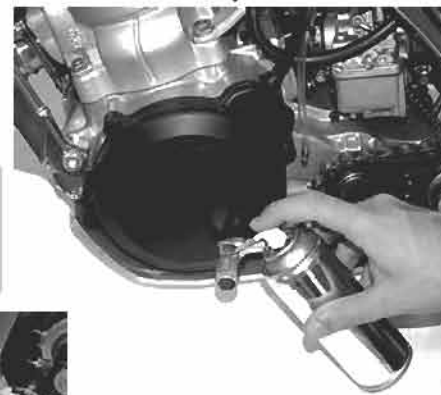


Use special oil to lubricate the following:

1) All linkages of the brake and clutch levers.



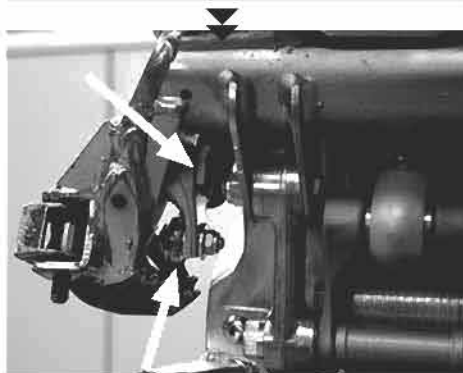
2) The linkage of the gear shift lever.

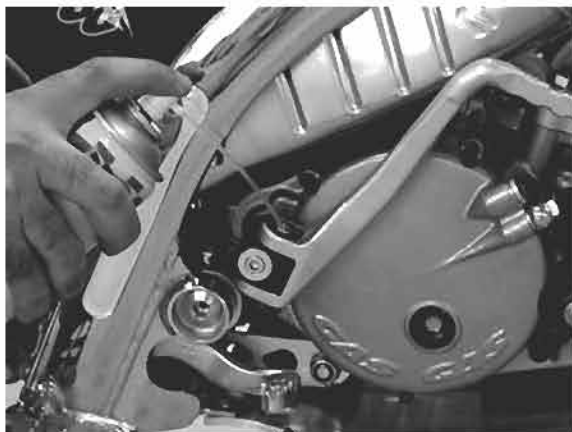


3) Also the rear brake pedal (bearings).



4) Apply grease to the footrests springs and fixtures.





5) Apply grease to the linkage of the engine starting lever.



7) Lubricate the handlebar with a fine coat of oil to allow smooth operation of the gasoline control.



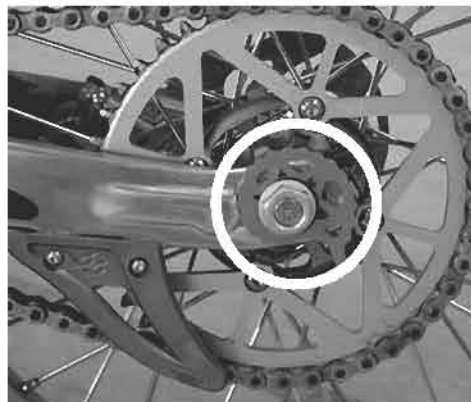
6) The secondary chain must be cleaned and lubricated thoroughly and frequently since it is exposed to inclemency and constant rubbing



8) It is also recommended to frequently lubricate the chain tensor spring because it is under great stress.



9) Oil and clean the gas control frequently; it is especially recommended to do so after the bike has been cleaned with water under high pressure.



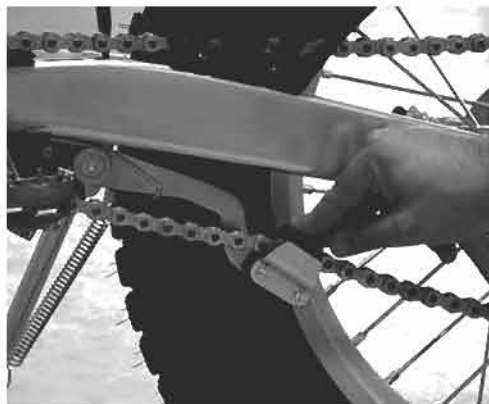
To regulate the chain slack and center the rear wheel use the shaft excentrics which can be easily graduated.



The chain tension must allow a slack near the tensor of about 2 cm.



The chain linkage must be placed in opposite direction of the wheel travel.





All tyres conditions must checked to insure optimum road adherence possible.

Fig. 1 - Bad condition

Fig. 2 - Good condition



Fig. 1

Fig. 2



Front tyre:
2,75 x 21" TRIAL
Rear tyre:
4,00 x 18" TRIAL
(tubeless)



Tyre pressure should be checked periodically to insure the best road adherence possible.



Front wheel pressure:
0,450 bar - normal
0,420 bar - competition

Rear wheel pressure:
0,350 bar - normal
0,300 bar - competition



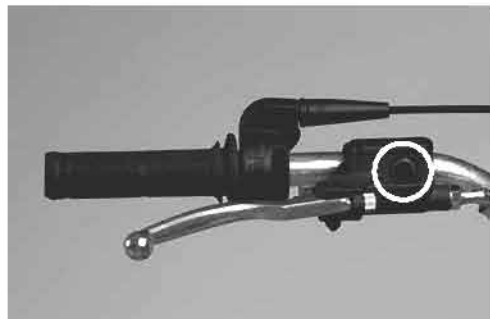
Pad brakes wear, front and rear, must be checked from time to time to insure an efficient braking power under all circumstances.



The brake calipers have been furnished with bleeder valves to eliminate the air trapped in the brake circuit.



The front brake fluid level can be verified watching through the transparent inspection window.





The rear brake fluid reservoir is located at the cylinder support.

Verify fluid level periodically and refill if necessary.



To verify the reservoir level you must remove the fuel tank, and place the oil reservoir in horizontal position to check the real fluid level. Must be filled between the marks MIN & MAX.

— MAX

— MIN

C H A S S I S	PART NAME	N-m
	Front wheel axle	40 - 50
	Chassis to swingarm fastener	60 - 70
	Upper shock absorber fastener	40 - 50
	Lower shock absorber fastener	40 - 50
	Connecting rods caps	40 - 50
	Handlebars	18 - 25
	Hand levers	7 - 10
	Radiator fasteners	7 - 10
	Front bridge wing	7 - 10
	Brake pedal	27 - 32
	Muffler fasteners	18 - 25
	Rear wheel axle	40 - 50
	Rear brake caliper fastener	27 - 32
	Front brake caliper fastener	27 - 32
	Exhaust pipe elbow fastener	27 - 32
	Engine fasteners	18 - 25
	Rear brake pump fastener	7 - 10

E N G I N E	PART NAME	N-m
	Spark plug	11
	Ignition fasteners	7 - 8
	Cluth fasteners	7 - 8
	Cylinder stud bolt fasteners	25
	Reeds fasteners	7 - 8
	Clutch ground fastener	3 - 4
	Crankcases fasteners	7 - 8
	Water pump cap fastener	7 - 8
	Clutch cap fastener	7 - 8
	Flywheel fastener	40
	Water fastener	10
	Ignition cap	7 - 8
	Engine drain plug	12
	Kickstart pedal screw	12 - 13
	Shift pedal screw	7 - 8
	Cylinder head screws	11,5 - 13
	Cylinder nut	25

STORAGE

For extended storage of the motorcycle, you must do the following:

- Clean the motorcycle thoroughly.
- Start the engine for about 5 minutes to warm up the transmission oil and then drain it (see “crankcase drain cap” page 22).
- Fill with new transmission oil.
- Empty the fuel tank (gasoline will deteriorate if left too long).
- Lubricate the chain and all cables.
- Cover all unpainted metal surfaces with a coat of oil to prevent rust, do not apply oil to the brakes and rubber parts.
- Cover the exhaust pipe with a plastic bag to prevent corrosion.
- Place the motorcycle in such a position so that the wheels do not touch the ground (if possible, place cardboards under the wheels).
- Cover the motorcycle to protect it from dust and dirt.

When starting off after an extended storage:

- Remove the plastic bag from the exhaust pipe.
- Tighten the spark plug.
- Fill the fuel tank.
- General lubrication.
- Inspect tyre pressure and inflate to the specified pressure, if necessary.



To avoid excessive ageing of the plastic parts and other washable pieces of the motorcycle, it is suggested that these items must be washed carefully. If the washer applies water at high pressure and/or temperature, take the precaution of maintaining the washer outlet gun at a distance of 30 centimeters minimum, this will insure the correct gloss of the plastics and adherence of the self-adhesive labels that decorate the motorcycle.

GAS GAS MULTIFUNCTION INSTRUCTIONS

The multifunction apparatus, which is waterproof, has 4-8 LED indicators on both sides of a central indicator screen. This central indicator screen, made of liquid crystal and with illumination, gives information about the rpm, speed, journey, kilometres travelled, time, average speed, maximum speed, length of time with motor running and total time, and fuel level. The data relative to the distance travelled and total time of use is stored in the memory, even when the apparatus is switched off. When the multifunction apparatus is not activated, it displays a clock.

The wheel circumference value is adaptable, as is the measuring system (metric or imperial).

The number and distribution of the LED indicators, and the amount of information on screen may vary according to model.

Panel





Panel description

1. RESET button
2. 2nd row of indicators
3. 1st row of indicators
4. Tachometer with bar graph
5. Tachometer scale
6. Fuel indicator bars (optional)
7. LED Indicator symbols
8. MODE button

Description of symbols

	Left indicator / Green
	Dipped headlights / Green
	Motor oil / Red (Optional)
	Right indicator / Green
	Full headlights / Blue
	Neutral / Green (Optional)

Technical characteristics

FUNCTIONS	Symbol	TECHNICAL CHARACTERISTICS	INCREMENTS	PRECISION
Bar Tachometer		500 - 11.000 rpm	500 rpm	
Digital Tachometer	RPM	100 - 19.900 rpm	100 rpm	
Gear change indicator	RPM	100 - 19.900 rpm	100 rpm	
Maximum Tachometer Value		100 - 19.900 rpm	100 rpm	
Speedometer	MAX RPM	2,3 - 300 km/h (187,5 m/h)	0,1 km/h o m/h	$\pm 1\% \text{ o } \pm 0,1 \frac{\text{km}}{\text{h}} / \frac{\text{m}}{\text{h}}$
Speedometer	MAX	2,3 - 300 km/h (187,5 m/h)	0,1 km/h o m/h	$\pm 1\% \text{ o } \pm 0,1 \frac{\text{km}}{\text{h}} / \frac{\text{m}}{\text{h}}$
Average Speed	AVG	2,3 - 300 km/h (187,5 m/h)	0,1 km/h o m/h	$\pm 1\% \text{ o } \pm 0,1 \frac{\text{km}}{\text{h}} / \frac{\text{m}}{\text{h}}$
Distance counter 1&2	TRIP 1&2	0 - 999.9 km or 0 - 624.9 miles	0.1 km or miles	$\pm 0,1 \%$
Mileometer	ODO	0 - 999,999 km or 0 - 624,999 miles	0.1 km or miles	$\pm 0,1\%$
Time In use	RT	0:00'00" - 99:59' 59"	1 second	$\pm 50 \text{ ppm}$
Total time	TT	0:00' - 9999:59'	1 minute	$\pm 50 \text{ ppm}$
Clock		0:00'00" - 23:59' 59"	1 second/1 minute	$\pm 50 \text{ ppm}$

Initial voltage: 12v CC.

Speed sensor Non-contact magnetic sensor.

Tachometer entry CDI (capacitor discharge ignition) or ignition coil signal.

Wheel circumference adjustment 1 mm - 3.999 mm (1 mm increments).

Working temperature: -10 °C - + 80 °C (engine casing interior).

Fuel sensor resistance 100 Ω (only in models with fuel level indicator).

Functions

RPM: Bar

Tachometer with bar graph The bar graph of the tachometer displays up to 11,000 rpm.

RPM: Digital Tachometer

The rpm is shown in the second row The digital tachometer displays up to 19,900 rpm The tachometer signal can be read from the CDI (Capacitor Discharge Ignition) or the ignition coil.

Gear change indicator according to rpm

This function permits setting an indicator for changing gear at a specific rpm level The tachometer bar flashes when the rpm reaches the specific level and stops flashing when the gear is changed.

MAX RPM: Maximum tachometer value

It appears in the 2nd row. It shows the highest level reached by the tachometer since the last resetting of the data.

SPD: Speedometer

The speedometer information appears in the first line of the screen It shows up to 300 km/h or 187.5 mph.

MAX: Maximum speed gauge

The MAX value appears in the 1st line. It shows the highest speed reached since the last resetting of the data.

AVG: Average driving speed

The AVG value appears in the 1st line. It calculates the average speed since the last RESET operation.

TRIP: Journey counter

This appears in the second line of the screen. The TRIP function contains the vehicle's accumulated mileage since the last RESET operation.

ODO: Mileometer

It shows the total mileage accumulated by the vehicle. The data is stored in the memory, even when the device is not running.

RT: Time of use controller

It calculates the total time in use since the last RESET operation. It starts counting from the moment that movement begins.

TT: Total time of use controller

It calculates the vehicle's total time in use. It starts counting from the moment that movement begins. The data is stored in the memory, even when the device is not running.

12/24 hour clock

It shows the time in either 12 or 24 hour formats.



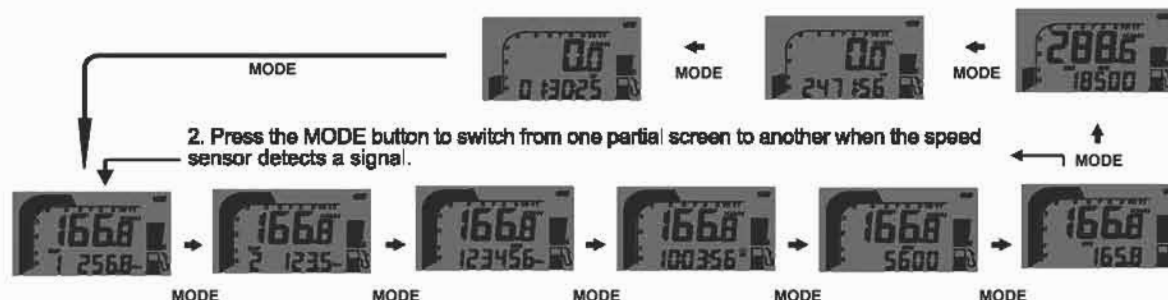
Fuel level Indicator (only vehicles with this function)

It has 7 bars showing the amount of fuel remaining in the fuel tank. The last bar flashes to indicate that the fuel level is too low.

Operation of the buttons

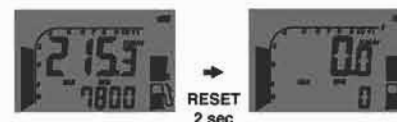
MODE BUTTON

1. Press the MODE button to switch from one function screen to another when the speed sensor detects no signal.



RESET BUTTON

1. Press the MODE button to reach the appropriate screen, and then press RESET for 2 seconds to return the data stored in TRIP 2, MAX and MAX RPM to zero separately.
2. Return the data in TRIP 1, AVG and RT at the same time. The data of the ODO, CLOCK and TT. cannot be returned to zero.



OPERATION OF THE GEAR CHANGE ACCORDING TO RPM

1. Press the MODE button to switch to the RPM screen; accelerate to the rpm which is desired for the gear change indicator to be activated.
2. Press the RESET button to confirm and establish the gear change indicator according to the rpm.
3. The tachometer with bar graph and a LED will flash to indicate the need to change gear.
4. Use the steps 1 and 2 to readjust the gear change according to RPM.

Multifunction and wheel circumference adjustment

The configuration operations include the 12/24 hour clock, the gear change according to rpm indicator, the number of engine revolutions by signal, the wheel circumference and the units of measurement. The configuration must be carried out step by step. The computer will return automatically to the main screen if no button is pressed in any adjustment screen for 75 seconds.

1. Press the MODE and RESET buttons to switch to the adjustment screen. In the adjustment screen, press the RESET button to increase the value of the flashing digits or to convert units, press the MODE button to confirm the configuration and move on to the next digit or the next adjustment screen to be configured. Press the MODE button for 2 seconds in any adjustment screen to conclude the configuration and return to the main screen.
2. The screen shows 12 or 24 h, and the symbols: XX: XX-XX, and AM/PM if the 12h option has been selected.
3. When the RESET button is pressed the 12/24h system changes, and when MODE is pressed, the configuration concludes and the configuration of the clock digits opens.
4. Press the RESET button to increase the value of the flashing digit one by one; press the MODE button to confirm the configuration and pass on to the following digit.
5. Press the MODE button to switch to the adjustment screen of the gear change according to rpm, once the clock has been configured.
6. The screen will show RPM rXXX00. Press the RESET button to increase the value of the digit one by one; press the MODE button to confirm the configuration and pass on to the following digit.
7. Press the MODE button to switch to the adjustment screen for the engine revolution by signal, once the gear change according to rpm configuration is completed.
8. The screen will show SPC-X.X RPM, with 1.0 as the default value. There are 4 options 1.0, 2.0, 3.0 and 0.5. They correspond to the number of revolutions for each signal. For example, a value of 2.0 means that the motor turns over twice to produce a signal.
9. Press the RESET button to move between the four values. Press the MODE button to confirm the configuration and to move on to the wheel circumference adjustment screen.
10. When cXXXX appears on screen, the "c" stands for "circumference" and is followed by four digits by default; the flashing digit is the one to be changed.

FINAL RECOMMENDATIONS

PREVENTIVE ADVICE

Before you ride the vehicle, take all the time you may require to check your motorcycle, carry out the periodical upkeep and check all functions. In different sections of this manual you will find data and work specifications that must be done at an authorized GAS GAS dealer, because of this and to extend the useful life of the motorcycle, all periodical inspections must be carried out by specially trained professionals at a GAS GAS Post-Sale Service Shop.



Poor maintenance work of the motorcycle or not taking proper care of any problem, even if it is a small concern, can cause severe personal injury and may lead to death.



To avoid excessive ageing of the plastic parts and other washable pieces of the motorcycle, it is suggested that these items must be washed carefully. If the washer applies water at high pressure and/or temperature, take the precaution of maintaining the washer outlet gun at a distance of 30 centimeters minimum, this will insure the correct gloss of the plastics and adherence of the self-adhesive labels that decorate the motorcycle.

SAFE RIDING OF THIS MOTORCYCLE

Safe riding of a motorcycle does not only depend on the vehicle. The driver's intelligence and common sense are key factors to be taken into consideration. It is recommended that you practice your favorite sport wearing all the necessary safety equipment (helmet, protection gear, boots, etc.).

LEGAL ADVICE

In the interest of technical development we reserve the right to modify the construction, the equipment and accessories of the motorcycle. It is understood that all measurements, weights and power data must include their respective tolerances. The photographs included in this manual may not match the model you have purchased. The descriptions and the illustrations may vary depending on the volume of equipment and accessories of your motorcycle and also of the versions exported. Because of this, there can be no liability except in case of errors, misprint or omission.

GAS GAS MOTOS, S.A. reserves the right to make changes and/or modifications at any time without notice.

HOMOLOGATION

The vehicle you have just acquired has been homologated under the directives of the EU and complies with all the homologation requirements demanded.

Compulsory homologation elements required, among others, when travelling on a public road and to meet periodical vehicle inspection approval at state controlled plants are listed below.

Among other requirements, all homologation components are identified with a determined and registered mark.

List of elements required:	Illustration	Qty. /bike
- Manufacture identification plate		1
- Catalyzed with with secondary air	Available	1
- Muffler	Available	1
- Carburettor jets	Available	1
- Front and rear turn signals	Available	1
- License plate holder	Available	1
- Speedometer	Available	1
- Electrical installation, homologated lights	Available	1
- Engine output pinnion and sprocket for a correct transmission gear ratio		1
- Horn	Available	1
- Rearview mirror	Available	2
- Antitheft system		1
- Antimanipulation plate (125 cc version)		1
- Air filter restriction; carburettor hood limit (according to model)		1

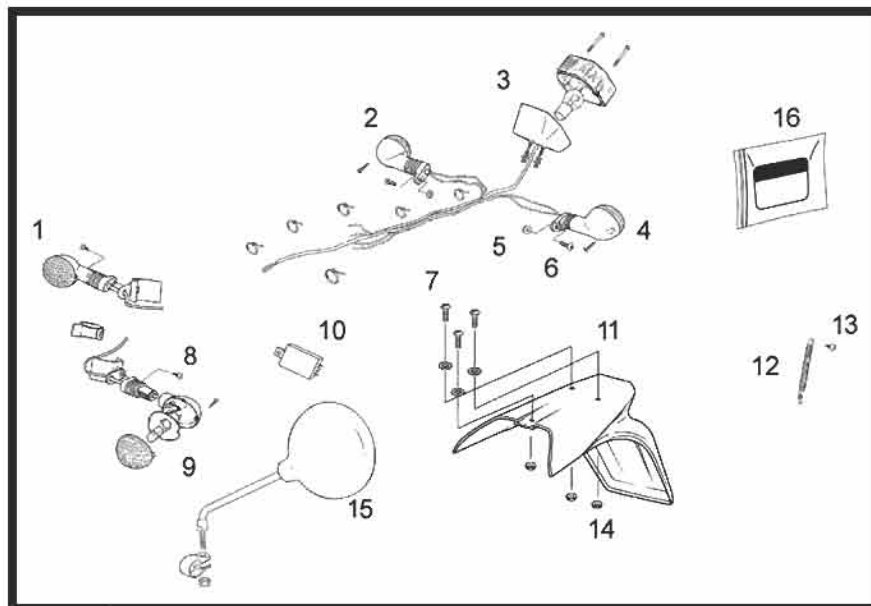
Each one of the homologation components must form part of the vehicle and in case of loss, breakage or malfunction it is recommended that the owner contact his official dealer to correct this problema.



Besides the homologated vehicle you have received a complementary kit for a racing version of this same vehicle.
Be advised that this version is not homologated.

HOMOLOGATION

- 1 - Front right turn signal
- 2 - Rear right turn signal
- 3 - Trial rear pilot
- 4 - Rear left turn signal
- 5 - M6 Bolt
- 6 - ULS screw 6x16
- 7 - Phillips screw M6 x 25
- 8 - Phillips screw 6.3x16
- 9 - Front left turn signal
- 10 - Turn signal box
- 11 - Trial license holder homologated
- 12 - Stand spring
- 13 - ULS screw 8x12 8.8
- 14 - Self-locking M6 nut with galvanized washer
- 15 - Mirrors
- 16 - Carburettor kit



	125 / 200	250 / 280 / 300		125 / 200	250 / 280 / 300
1		BT280634018	11		BT280520003
2		BT280634018	12		BE25610039
3		BT280334015	13		T0508012
4		BT280634019	14		T2206002 x3
5		T2206000 x2	15		L300760 x2
6		T0506016N x2	16	MT120690100	MT280690100
7		T0706025 x3			
8		T0706316 x2			
9		BT280634019			
10		L300720			