

TXT, EC AND HALLEY, THE 2009 NOVELTIES BY GAS GAS PRESENTED AT THE 2008 MOTOH! BCN

- TXT PRO Four Stroke, the most expected 4-stroke trial bike
- New chassis for all the ranges aiming at greater stability: tube frame for the TXTs with modified geometry and use of steel micro fusion parts in the ECs
- Reappearance of the Halley, the most 'on-road' product by the company, both with 2 and 4-stroke engines



•••TXT PRO Four Stroke



•••Halley 450



•••EC 450

The Gran Semana de la Moto, MotOh! BCN 2008 will witness the presentation by GAS GAS Motos of their full 2009 range, which is organised in three great families with the names TXT (trial bikes), EC (Enduro) and Halley, a new model which enables them to recover the name of the first trial bike built by the manufacturer, only now associated with a purely supermotard and trail product, very much conceived for riding in urban conditions. GAS GAS are also keeping in their product catalogue for 2009 the HP Wild Quad with a 515cc 4-stroke engine, basically destined to competition.

In the trial family, GAS GAS are keeping the PRO options (totally standard bikes ranging from the 125cc to the 300cc, including the 250- and 280cc bikes), also with versions for the younger riders and children with the names Cadet, Rookie and Boy; and Racing, a model that differentiates the 125 – aimed at young riders still forming as or aspiring to be pilots and who need a swift and easy-to-ride mount – from the so-called Raga Replica, with engine sizes of 250, 280 and 300cc. As a great novelty, and the latest to join the range, GAS GAS are presenting the TXT Pro Four Stroke prototype, a 4-stroke long-awaited by the public which its makers were eager to see in its completed form, a reality now in white plastics evoking the aspect of the legendary Halley 325, the first GAS GAS to see the light in 1985.

In enduro, the EC keep the 125, 200, 250 and 300cc models in their two-stroke versions, and the same name is given to the 4-strokes, formerly named Four Stroke Racing (FSR), in 450 and 515cc cylinder sizes. As a novelty, a new 4-stroke, 250cc bike, which will also be seen in the MotOh! BCN 2008, will be entering the market shortly. In the case of the 300 and 515, GAS GAS will also produce a Racing version, and there will also be a unit of the sports 515 Desert bike, the bike GAS GAS wants to use to enter the next edition of the re-designed Dakar through their German importer, Win Oerlemans.

The newest in soft enduro comes with the name Halley. This new family comprises the evolution of the former supermotards, generating a new, quasi-urban bike with off-road looks that keeps the 'hard' GG essence, and is easy and comfortable to ride, aiming at a very young public. As with the rest of the families, this bike is available in 2- and 4-stroke versions and in 125 and 450cc cylinder sizes, in SM and R finishes. Barcelona will host the international presentation of the Halley with the target to settle soon in a market niche where GAS GAS is not present at the moment, but has a strong demand that the manufacturer want to satisfy, as they are able to compete their both in quality and price.

In the four-wheel sector, GAS GAS are betting on their new Quad HP 515, derived from the 450 HP with many small modifications that make it very competitive in circuits.

Its technical performance, dynamic quality and affordable cost continue to be one of the strong points of the 2009 GAS GAS products. These three significant aspects are constantly central for the people responsible of the project, as well as for the Operations and Research and Development Departments technicians. GAS GAS continue with their compromise with environmental friendliness by offering low-emission 2- and 4-stroke engines, meeting the present and also future regulations.

While the production does not cease to supply new markets, with an increasing number of orders from the USA, Eastern Europe and South America among others, GAS GAS Motos continue their policy of an ever-increasing quality in the evolution and development of their mechanical elements and of perfecting the finish of their bikes, apart from keeping focused on their aim to constantly reduce the weight of their motorbikes. The top of the range in this battle against weight is clearly the TXT trial bike.

•••TXT-Trial: Tube frame for the whole range

Although it may seem impossible given the level achieved by former products, GAS GAS Motos have designed an even lighter new trial range for 2009 which totally meets the European environmental rules. This pack of requirements has resulted in the re-designed TXT family in their PRO and Racing versions – the latter being the replicas of Adam Raga's bike – featuring a Cr-Mo steel alloy tube frame in all their cylinder sizes that improves their performance, enabling them to reduce the thickness of the tube profile and, as a result, to lower the weight of the chassis, increasing its stiffness in the process.

Until 2008, the trial GAS GAS bikes have used an elliptic-profile chassis, in spite of which they were at the top in terms of light weight, a virtue that will keep distinguishing the new TXT family.

The aluminium swing arm and a new, lighter carbon-fibre muffler, as well as a new, slimmer and more slender fuel tank, contribute to the small but significant weight reduction. The new 2009 TXTs will have an average global weight of 66 kg.

•••TXT 300 Raga



Some other aspects to comment are the shorter titanium exhaust u-bend which increases the performance of the engine in the Racing models, as well as the new front radiator shield in the complete range. The electric wiring paths have also been redistributed. It should be remarked that all the new TXT, both the Racing and PRO models, and even the versions specially built for the US market, have been approved to exceed the European Euro-III regulations, by applying an endless number of elements such as the catalysed exhaust, specific carburettor, etc.

Main novelties for 2009

- New tubular chassis (white or red according to cylinder size) with high-performance Cr-Mo alloy for weight reduction and increased stiffness
- White plastics
- Lighter, carbon-fibre muffler (in the Réplica Raga and Racing 125)
- New radiator in the front shield
- New, slimmer fuel tank
- Optimised electric wiring
- New design of the rear brake lever
- Approved to meet European Euro-III regulations

Exclusive in the Réplica Raga (250, 280 and 300 cc)

- Aluminium swing arm
- DID rear rim
- Shorter titanium exhaust U-bend (even in the 125 Racing)



•••TXT Racing 125

All the changes affecting plastics, decoration and chassis have also been applied to the Cadet, Rookie and Boy models, which are aimed at a younger public.



•••TXT Boy 50
y Cadet 80

•••GAS GAS TXT Four Stroke: The most expected 4 stroke bike

Directly derived from the GG TXT 300 Raga developed by Adam Raga in competition, the TXT Four Stroke is, paradoxically, a bike conceived for the series and not for competition. GAS GAS are presenting for the very first time and officially in Spain their 4-stroke trial bike, a motorcycle GG have worked on for a long time and which will be in the market in not over half a year. These are the characteristics that define this new GAS GAS product:

- Revolutionary single-cylinder 4-stroke, 350cc and 2 side-valve valve engine
- Liquid cooling with water radiator and electric fan
- Intake and ignition feature Kokusan electronic injection, with Battery-less system.
- The clutch derives from the renowned TXT PRO system, hydraulically activated with adjustable progressivity 1/3 discs and GAS GAS-patented diaphragm
- The gearbox also comes from the TXT PRO model, and features 6 speeds and the Four/Six system, also patented by GAS GAS
- Engine lubrication is by wet sump.

All these characteristics result in a light and very compact engine, very much in line with the acclaimed TXT PRO.

The chassis also derives from the new TXT Racing 2008, only with tube profile in Cr-Mo alloy.

The front and rear suspensions come directly from the 2-stroke TXT model, as well as the wheels, tyres, brake parts and others. The fuel tank is specific for this model, which adopts white as a colour that distinguishes it from the rest of the range. The new bike boasts a weight of 67.5 kg, also in line with the new TXT range for 2009.



Hugues Brunault: "We didn't want to make a 4-stroke engine, but the best 4-stroke engine"

The 4-stroke engine project for a GAS GAS trial bike came in 1998 and almost a decade has passed since then, but in this period of time they have achieved the creation, according to the company's philosophy, of "the simplest but most reliable product, the lightest and most powerful, and at the same time the most affordable one. These were the premises we always had in mind, as well as the one we imposed on ourselves when we conceived the engine: in GAS GAS we didn't want to make any 4-stroke engine, but the best possible 4-stroke engine," states Hugues Brunault, the person in charge of developing the trial 4-stroke GG bikes.

"A 4-stroke bike has its pros and cons. Among the pros we have better traction, power and a more linear torque curve, which means a more regular power delivery. In the cons we have the weight, an aspect which is minimised as much as possible in each of the products in GAS GAS.

In this new engine we have put the valves at the sides of the cylinder, so that they are parallel, which lowers the centre of gravity and enables the engine to have almost the same size as a 2-stroke, also saving some weight. At the same time, this engine is much simpler in its structure, because it has fewer pieces than a conventional one," says Hugues.

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•••Halley: The 'most on-road and trail' GAS GAS

In 1985, GAS GAS Motos took the final step in their growth as a manufacturer and started their trial bike production in their own assembly chain in Fornells de la Selva. During that first year, 200 bikes were made and, since the assembly of those first motorbikes coincided with the transit of the Halley comet over European skies, the name that company partners Narcís Casas and Josep M. Pibernat would identify their first bike with was to be no other than 'Halley'.

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Although the great revolution in this four-stroke GAS GAS is the side-valve collocation,

we cannot forget the battery-less electronic injection system, a complete premiere that will also be applied shortly to the new 4-stroke 250 that is already being prepared.

GAS GAS started their 4-stroke production in the enduro field. The first engine built by the company was a 400cc which would grow up to 450cc within two years. In 2005, a new generation of 4-stroke GAS GAS appeared, always with electronic injection to guarantee an increase, with some future evolutions, of the engine power and performance, a good compromise that has seen its technology transferred to trial.

Hugues Brunault explains: "The 4T engines have about twice as many parts as similar-sized 2-strokes. On the other hand, the manufacturing process for each part is much more precise and controlled." The resulting bike has already been tested by Jordi Tarrés with very high reliability results. The manufacturer's intention is to make its debut before the end of the year, although initially the bike used will be a standard model.



•••Halley 125 R

Today, 23 years later, GAS GAS Motos is recovering that Halley name to christen a new concept of 'quasi-on-road' bike, with 2- and 4-stroke engines and 125 and 450cc cylinder sizes and a chassis directly derived from the EC 125, with a steel sub-frame with foot pegs for a second passenger. The range will be extended with a

Supermotard and a Racing models, named SM and R. With this model, GAS GAS is aiming at a young and ambitious public, and entering in a league basically dominated so far by Supersport models.

The 1985 Halley 325 trial bike was ridden by Gabino Renales in the World Trial Championship, giving the manufacturer their first international win in 1987 (Trial of Belgium). It was a compact, quite heavy bike with present-day vision, fitting a 2-stroke, 327cc engine deriving from the Italian Villa engine, with front and rear drum brakes and monoshock suspension. Nothing to do with the new Halley. In its supermotard version, the new member of the GAS GAS family will feature a 2-stroke engine made in the Salt factory, a 124cc derived from the one in the new 2008

Halley 125 SM



competition enduro bike. This will be the first model to be launched in May, although the range will soon be completed by the 450 SM and the 4-stroke 125, featuring an air-cooled, single-cylinder engine with 5 speeds and electric start, and a power inferior to 11 kW, always according to the Euro-III regulations.

The new Halley SM and R adopts black as the generic chassis colour and boasts an attractive look which reminds us of the enduro range. However, it is totally prepared

to work as an urban bike: indicators, road tyres, adjustable handlebars and short-cut mudguards that give it a sports look aiming at attracting youngsters who want a bike according to their riding style and that is at the same time economical (€4,200 VAT included). Other features that define the new Halley are the steering lock system, a fuel cap lock and passenger foot pegs.

These are the main characteristics that define the Halley range:

Halley 125 (Supermotard and Racing)

Chassis:

- Chassis derived from the EC125 model, with steel subframe and passenger foot pegs
- Upside-down front suspension, 41 mm \varnothing and 255 mm travel
- Rear suspension with cast aluminium swing arm and progressive rod system, and single 246mm-travel shock absorber
- Aluminium 1.6x21" front rims with 80/90x21" tyres; aluminium 2.15x18" rear rims with 110/80x18" tyres for the Racing version
- Aluminium 2.50x17" front rims with 100/80x17" tyres; aluminium 3.00x17" rear rims with 120/70x17" tyres for the Supermotard version
- 260mm front disc brake with double-piston caliper and 220mm in the rear with single-piston caliper
- Separated lubrication oil reservoir
- Keyed fuel cap lock
- New-design front mudguard and headlight
- Subframe with passenger foot pegs
- Specific decoration for this model

Engine:

- Single-cylinder 2-stroke engine with reed-valve intake directly into crankcase derived from the engine fitted to the EC125
- Liquid cooling system
- Multi-disc clutch, hydraulically activated
- 6-speed gearbox
- Dell'Orto 26 mm \varnothing carburettor
- Separated lubrication via electronic pump
- Forged aluminium kick-start pedal

Halley 450 (Supermotard and Racing)

Chassis:

- Chassis derived from the EC450 model with steel subframe with passenger foot pegs
- Upside-down 41 mm \varnothing , 230 mm-travel front suspension
- Rear suspension with cast aluminium swing arm and progressive rod system, single 220mm-travel shock absorber
- Aluminium 1.6x21" front rims with 90/90x21" tyres; aluminium 2.15x18" rear rims with 120/90x18" tyres for the Racing version, with trail-type tyres.
- Aluminium 2.50x17" front rims with 100/80x17" tyres; aluminium 3.00x17" rear rims with 130/70x17" tyres for the SM version
- 260mm \varnothing front disc with double, parallel-piston floating caliper and 220mm at the rear with single-piston floating caliper
- Keyed fuel cap lock
- New-design front mudguard and headlight
- Specific decoration for this model
- Digital tachometer, includes rev counter
- Features plastic parts (rear mudguard, filter box, seat, fuel tank...) derived from the EC450 model
- Seat height is 50mm lower (Halley 450) and 60mm lower (Halley 450SM) than in the EC450 enduro model
- Electric fan fitted

Engine:

- The engine derives directly from the EC450, and is a 4-stroke, single-cylinder unit with four-valve cylinder head, water cooled
- Intake and ignition are Kokusan (Battery less EFI) electronic injection.
- Lubrication by wet sump with oil pump
- 6-speed gearbox with multi-disc clutch activated by AJP hydraulic pump
- Injection has been specially calibrated for these motorbikes

•••EC-Enduro: Looking for excellence in each detail



•••EC 300 Racing

Since its birth already a couple of decades back, the Enducross (EC) saga has not ceased to develop, adopting multitude of changes that, season after season, not only contribute to its constant improvement, but also in practice make it a virtually new bike every time. Presently, with a very complete chassis and suspensions, a highly attractive chassis and its high manageability, its more than correct suspensions, first-line brakes and, as the company's trademark, extremely light weight, the 2- and 4-stroke EC are presented in Barcelona with small innovations that flow to give the package a better mark and allow them to keep being a sales success in Enduro.

The 2- and 4-stroke ECs also concentrate most of their innovations in their chassis. Starting by the 2-stroke versions, which have not been altered in the part of the engines made in GAS GAS with the exception of the smallest one – the 125 -, these bikes feature a new chassis with new parts in steel micro fusion that have allowed for a weight reduction as well as something that the manufacturer have wanted to achieve for a

long time in mass production: its final entrance in the industry.

Changes in the suspensions with also new fork plastic protections; brakes and brake pumps; modified foot pegs or the newly-designed chain guide at the rear, preventing the user from slipping the foot between the chain and the crown and adapting perfectly to the FIM regulations in this respect, are some of the many small changes that can be stated.

As mentioned above, regarding the engine, the modifications only affect the 125, which features a crankshaft with a con rod 5mm longer than usual and a new cylinder head. Together they improve the bottom-end response and increase the durability of the thermodynamic parts; thus the redesigned crankcase eases the entrance of the gases into the crankshaft chamber.

Main novelties in the two strokes for 2009

EC 200, 250 and 300 cc

- Chassis featuring new parts in steel micro fusion
- Upside-down Sachs-Boge front fork with 48 mm \varnothing , 295 mm travel, hydraulic adjustment both in compression and extension. In the Racing models, it also has spring preload
- Rear suspension formed by cast aluminium swing arm and a progressive system with new Sachs monoshock with 8 mm \varnothing rod and improved parts for better hydraulic operation, very stable at high temperatures
- Lighter Nissin rear brake pump and brake caliper

- Rear chain guide with new design to meet the FIM regulations
- Electric wiring separated from the indicators' specific wiring
- New, small indicator box
- Modified foot pegs that allow the foot peg to fold more and improves the pass through deep ruts
- New tyre grips in the front and rear wheels
- New front plastic shields, more wrapping over the front suspension tube

All these modifications have been applied to the EC 125, which has also been revised in the terms below:

- The crankcase has a 5mm longer con rod, together with a new cylinder head
- Redesigned crankcase to improve the entrance of gases into the crankshaft chamber



•••EC 125

The EC 125 also features a new, upside-down 45 mm \varnothing front fork, and it is the only model to use it.

The 4-stroke EC (the former FSR 450 and 515 that will receive the names EC 450 and 515 in 2009, completing the comprehensive Enducross family), have been modified both in their chassis and suspensions and in their engines. The changes in the engines affect the cylinder head, the head gasket, the cylinder and the injection calibration. Regarding the frame, the new one is an evolution of its predecessor, with modified geometry offering greater stability, also thanks to the position of the rear shock absorber and the changed radiators. New brakes, black anodised rims and a new Sachs-Boge shock absorber with a 25mm axle and adjustable travel complete the innovations, which are listed below.

Main novelties in 4 strokes for 2009

Engine

(evolution of the 2008 range in the aspects below):

- Improved cylinder head, with new cooling circuit for improved performance, and modified cast of the combustion chamber zone for higher torque and power
- Head gasket made in new material, more resistant to temperature and pressure
- Reinforced cylinder to resist the increase in power and torque better
- Revision of the injection calibration for better start, torque and power

Frame and suspensions:

- Chassis developed in the following aspects: geometry, for better stability; position of the rear shock absorber; and radiator position, for wider steering radius



•••EC 515 SM



- New-design rear chain guide to meet FIM regulations
- New Nissin rear brake, lighter and more powerful
- New Sachs-Boge 48mm front fork
- New Sachs-Boge shock absorber with 25mm axle, adjustable and with adjustable travel
- New, more powerful front brake disc
- New rear brake disc
- New rims anodised in black
- New graphics

•••EC 250 4 strokes: A prototype thinking about 2010

Apart from showing the new GG TXT PRO Four Stroke, a prototype already with a date to enter the assembly line, GAS GAS Motos will introduce in Barcelona a revolutionary four-stroke bike whose mission is to enter in the 2010 product catalogue. It is the EC 250 4T, an equivalent to one of the sale successes in the 2 strokes. It will have the following characteristics:

Engine:

- Single-cylinder 4 strokes
- Distribution: 4 valves, DOHC
- Lubrication: Closed-circuit pressure lubrication with double pump
- Cylinder size: 248cc
- Bore x stroke: 82mm x 47mm
- Battery-less Kokusan electronic ignition
- 6-speed change
- Multidisc, hydraulically activated clutch in oil bath
- Electric start

Frame:

- Deltabox Cr-Mo chassis
- Front suspension: Upside-down 48 mm ø fork
- Rear suspension: Shock absorber adjustable in compression (low and high speed) and rebound
- Front brake: 260mm disc
- Rear brake: 220mm disc
- Front wheel: 90 x 90 - 21"
- Rear wheel: 140 x 80 - 18"
- Wheelbase: 1,465 mm
- Seat height: 945 mm
- Fuel tank capacity: 7.2 litres
- Void weight: 103.7 kg



•••Quad HP Wild 515: Conceived for competition

GAS GAS are also betting for the GG HP Wild 515 Cross, the new quad which will complete the vehicle range for the manufacturer in 2009. Featuring a 4-stroke engine derived from the competitive 515, a six-speed gearbox and electronic injection, this model is presented in a single version conceived for competition, with a very reduced global weight after being stripped of all the elements necessary for versions destined to users and not pilots. The Quad 515 is a direct heir to the Wild HP 450 but with several modifications – listed below – that make it very competitive.

Engine:

- Single-cylinder four-stroke with four-valve cylinder head, liquid cooled.
- Intake and ignition are via Kokusan electronic injection (Battery less EFI).
- Lubrication by wet sump with oil pump.
- 6-speed gearbox with multi-disc clutch activated by an AJP hydraulic pump.
- Calibration of the injection is specific for this engine, improving its use in the Quad.

Frame and suspensions:

- Reduced electric wiring, specially for competition, with emergency stop
- Elimination of lighting components, front headlight, rear light, horn, indicators, tachometer, plate number support and other parts which are not necessary for the circuit and considerably improve the weight of the quad
- Chassis in red with black plastics, replacing the front headlight by a carbon-fibre number plate
- Fenders improving the flow of air into the radiator made in carbon fibre
- Radiator protector in inox steel with protection grid
- Rear brake protector
- Crankcase shield
- Specific Sachs-Boge shock absorbers
- Front brakes with Brembo calipers and radial Beringer pump
- Special arms with adjustable advance and camber, connected to the chassis via Uniball ball joints
- Shorter steering tube to improve the riding position on the quad
- Elimination of the emergency brake system in the rear caliper
- Wave-type rear disc

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