

# Press Release MONTESA COTA 300RR 2017



## 2017 Updates

Last season, Montesa expanded its line up with an all new trial model, the Montesa Cota 300RR, a racing oriented motorcycle created for the brand's most demanding customers and known for its exclusiveness. This year, the Cota 300RR's inspiration is even more racing.

#### New 2017 features:

- **Three rings on the piston** instead of two. Better engine response, especially in the low to mid ranges.
- New piston head design, now flatter. This improves the efficiency of combustion at low rpm and reduces vibration.
- **Redesigned cylinder** that adapts to the new piston, improving the engine performance and giving the motorcycle a feel closer to that of racing bike.
- New ECU mapping
- Shorter brake pedal to avoid impacts.
- New muffler, now more resistant.

- **Improvement of the fork settings** to increase shock absorption and give the motorcycle more stability.
- Euro4 Model

## **Concept of development**

Up until last season, Montesa offered a choice of two very high quality models, the Cota 4RT260 and the Race Replica, their main features being their advanced technology, reliability and the quality of its components. However, customers with a more race oriented preference were asking the brand for an increase in engine performance as well as a lighter model that would be able to compete directly against two-stroke motorcycles. With these two objectives in mind and keeping the basis of the Cota 4RT models, Montesa Honda's team worked alongside Honda Motor Co Ltd's R&D departments to create the new Cota 300RR, a race-oriented model that retains the high quality standards of the brand.

The Cota 300RR is a motorcycle made for racing, something that stands out even by its name: RR (Race Ready). The model was developed based on the proven experience inherited from racing models such as those used by Montesa's riders in Trial Championships. In fact most of its components and technical solutions come from Eddie Karlsson and Oriol Noguera's motorcycles. In fact, we can assure our clients the Cota 300RR is the mass produced model most similar to the factory prototypes used by Toni Bou, Takahisa Fujinami and Jaime Busto in competitions. In other words, it's an authentic racing model now available for brand followers. Furthermore, with these years' improvements, the Cota 300RR has gotten even closer to a true competition motorcycle.

When the development team of Cota 300RR started working last season, they aimed to achieve two things: an increase in power and making the motorcycle lighter. To achieve this, the thermodynamic group is fitted with a new engine with a noticeable increase in displacement. This was done by increasing the diameter and the stroke of the piston. The result of this modification is that the model has more torque and power, especially in the mid-ranges, whilst keeping its known response in the low. Overall, the increase in power, the reduction of the engine braking and reduction of the weight of the chassis and suspensions, make the model feel faster, lighter, more powerful and easier to control, essential features for race oriented model.

## **Manufacturing Process**

Just like the Cota 4RT260, the Race Replica and the 4RIDE, the 300RR is manufactured exclusively and for a worldwide distribution at the modern Montesa Honda facilities located at Santa Perpètua de Mogoda, in Barcelona. Furthermore, in an effort to ensure the preservation of the brand's high quality standards, all the processes of welding, assembly of the engine, plastic injection, manufacturing of the fuel tank and swingarm, as well as the aluminum frame is all done at these facilities.

## **Design & Style**

Yet another season, Montesa is betting on its classic red for the Cota 300RR, with some small variations that give it an even sportier look. The fuel tank and the mudguards are red and combine with the black details and the 4RT and Cota 300RR logos. The frame and clutch and ignition covers are anodized black giving the model an extra sportier look. The rims are also anodized black and are elegantly combined with red decals.

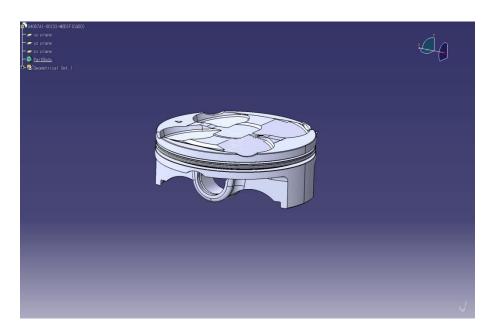
Montesa's models have always been known for the great quality finish and their excellent components that preserve their properties intact throughout out the years. This is something we have kept in the new Cota 300RR with the incorporation of the highest quality plastics and decals.

#### Motor

The Cota 300RR is fitted with an engine based on those used by Montesa's riders Eddie Karlsson and Oriol Noguera in Trial World Championships.

This year, the Cota 300RR features new ECU maps that improve engine response, especially in the low to mid ranges, especially important for trial riding. The engine response is also improved by three rings piston, instead of two, lessening the chances of leakage and making it more durable.

The piston top has also been redesigned and is now flatter, which makes the combustion more efficient at low rpm. This also means the piston is lighter and therefore less likely to cause vibration. The cylinder has also been redesigned to fit the new piston, in an attempt to make the engine more efficient (especially in the low to mid ranges) and overall more responsive, so the feel to the bike as well as its features are that a much closer to competition model.



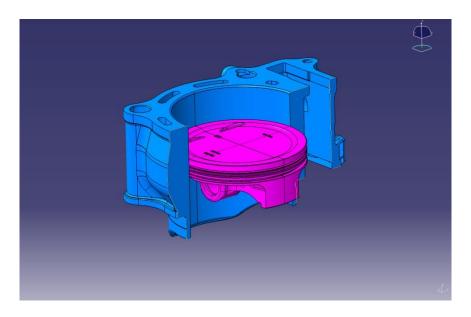
3D Image of the Montesa Cota 300RR 2016 two ring piston



For the 2017 model, the piston top has been made flatter and features three rings instead of two

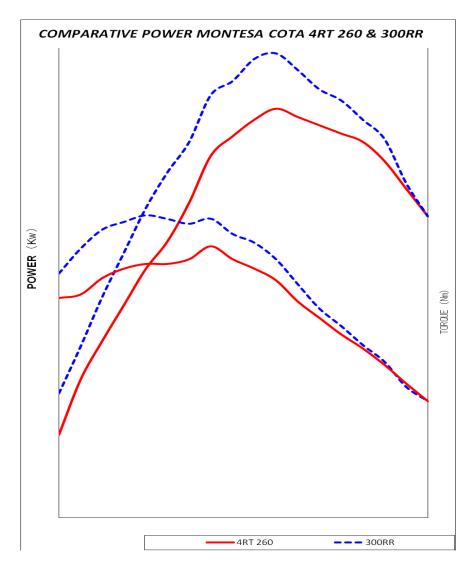
One of the main advantages of the PGM-FI Electronic Fuel Injection system is that it self-adjusts the mix to adapt to the different meteorological conditions, the racing models have the option to install the throttle body-ECU, included in the Full Power version. This throttle body - ECU features a double ignition map activated through a switch on the handlebar: Mode 1, useful in conditions of low traction; and Mode 2, the map used for max power. Furthermore, the throttle body - ECU isn't

actually a sealed system, so the rider will be able to adjust the ignition and injection maps simply by connecting it to a Laptop.



The cylinder has also been redesigned to fit the new piston perfectly making the overall design of the 2017 model more efficient

These changes translate in a fuller and stronger power curve in all ranges of rpm, especially in the mid ones, keeping its sweet response on the low ones. Another aspect where they can be noticed is the perfect connection between throttle and final transmission, a key element in professional trial and another reflection of the excellent performance of the PGM-FI Electronic Fuel Injection system.



Finally, another aspect worth highlighting is the reduction of the engine brake, since the release of first 300RR version, by incorporating a crankcase's gas decompressing system as well as a thorough work on the electronics to minimize this effect. Through this system, when closing the throttle, the engine braking is minimized which makes the motorcycle feel lighter and easier to control.

# **Chassis and suspensions**

One of the most important improvements in this area is the new TECH fork settings, which now provide better shock absorption. We've also worked on compression stop at the end of the stroke to improve the rider's comfort by making the motorcycle less bouncy and transforming it into something more similar to what you would find in racing bikes. All of these new setting make the new Cota 300RR even more stable.

The rear suspension is still signed by Showa, with settings that make the overall feel of the bike lighter and more stable, as well as providing better traction and relieving the riders fatigue.

The Cota 300RR will also continue to use Michelin X11 tires, offering the prefect combination of traction, lightness and response. The tires come equipped with light mechanized hubs made of 7075 T6 aluminum, anodized in black and with the RR logo engraved with laser. The overall weight reduction is also achieved by the use of new DID aluminum tire rims, lighter than the ones used in other models.

Furthermore, the Cota 300 RR, like the Cota 4RT260 and the Race Replica continues to rely on a light robust aluminum frame and swingarm with a proven reliability and performance.

Finally, this year, the model will also feature a new muffler that is more resistant and includes reinforced mountings.

## **Brakes**

The Cota 300RR features a front brake which incorporates a 4 piston monoblock caliper, allowing more efficient and powerful braking. The new brake and clutch master cylinders, with red anodized covers, are signed by Braktec.

This year the models will also feature a shorter brake pedal that helps avoid strong impacts and consequently will last a lot longer.

## **High Quality Equipment**

The Montesa Cota 300RR offers high quality equipment, like the advanced ignition system without battery which powers, among others, the injection system and the ignition coil. Also worth noting is the bank angle sensor which switches off the ignition when the motorcycle is laying on the ground or when it is at an inclination superior to 65° for more than 7 seconds. This device minimizes the rider's exposure to risk as well as protecting the engine, especially in situations where the engine can remain revving.

The model also includes the "man down", a useful magnet-type switch that stops the engine immediately in the case that the motorcycle was to fall. When disconnecting, the engine stops automatically as a measure of active safety.

The wheel rims keep their design of 32 spokes and the rear one the innovative system that incorporates central adjustment spokes, allowing a significant weight reduction, an easy maintenance and the mount of Tubeless tires, which again reduces the weight of the motorcycle. Also worth noticing is the aluminum Renthal Fat Bar handlebar.

## **Racing Kit Parts**

With the purchase of a Cota 300RR, you will also receive a kit of carbon HRC parts composed by:

Clutch cover protection
Exhaust pipe protection
A light headlight visor for exclusive racing use.

## Racing

Montesa has been world champion on 18 times. The last 11 titles have been achieved consecutively with the Cota 4RT model.

Montesa has also proven its leadership as a brand in other specialties such as the World Indoor Championship and the Women's World Championship where it has obtained 14 and 8 titles respectively.

The achievement of these awards proves the authority of the Montesa Cota 4RT in high level competition, where it has been the leader ever since 2005.

Finally, we'd also like to note that this year Montesa reached its victory number 200 in world trial GP.

## MONTESA WORLD TITLES (RIDERS & MANUFACTURERS)

OUTDOOR TRIAL WORLD CHAMPIONSHIP				
YEAR	RIDER	MANUFACTURERS' CHAMPIONSHIP	Model	Engine
2016	???	MONTESA		
2015	T.Bou	MONTESA		
2014	T.Bou	MONTESA		
2013	T.Bou	MONTESA		
2012	T.Bou	MONTESA		
2011	T.Bou	MONTESA	Cota 4RT	4 stroke
2010	T.Bou	MONTESA		
2009	T.Bou	MONTESA		
2008	T.Bou	MONTESA		
2007	T.Bou	MONTESA		
2006	-	MONTESA		
2004	-	MONTESA		
2003	D.Lampkin	MONTESA		
2002	D.Lampkin	MONTESA	Cota 315R	2 stroke
2001	D.Lampkin	MONTESA	C012 3 15R	
2000	D.Lampkin	MONTESA		
1996	M.Colomer	MONTESA		
1981	-	MONTESA	Cota 349	7
1980	U.Karlson	MONTESA	COM 349	

E.Lejeune got 3 world trial titles in a row from 1982 to 1984 with an Honda RTL260, 4 stroke engine T. Fujinami won the World Championship on 2004 with Honda

TRIAL INDOOR WORLD CHAMPIONSHIP			
YEAR	RIDER	Model	Engine
2016	T.Bou		
2015	T.Bou		
2014	T.Bou		
2013	T.Bou	0 + 407	4 stroke
2012	T.Bou		
2011	T.Bou	Cota 4RT	
2010	T.Bou		
2009	T.Bou		
2008	T.Bou		
2007	T.Bou		
2001	D.Lampkin	Cata 215D	
2000	D.Lampkin		O atrada
1996	M.Colomer	Cota 315R	2 stroke
1995	M.Colomer		

WOMAN WORLD TRIAL CHAMPIONSHIP			
YEAR	YEAR RIDER		Engine
2013	LAIA SANZ		
2011	LAIA SANZ		
2010	LAIA SANZ		
2009	LAIA SANZ	Cota 4RT	4 stroke
2008	LAIA SANZ		
2006	LAIA SANZ		
2005	LAIA SANZ		
2004	LAIA SANZ	Cota 315R	2 stroke

JUNIOR WORLD TRIAL CHAMPIONSHIP			
YEAR	RIDER	Model	Engine
2011	ALFREDO GÓMEZ	Cota 4RT	4 stroke
2006	DANI GIBERT	CO12 41(1	

MONTES A WORLD TITLES	TOTAL	2 stroke	4 stroke
OUTDOOR WORLD CHAMPIONSHIP (RIDERS)	15 TITLES	6	9
MANUFACTURERS WORLD CHAMPIONSHIP	19 TITLES	8	11
INDOOR WORLD CHAMPIONSHIP	14 TITLES	4	10
WOMEN WORLD CHAMPIONSHIP	8 TITLES	1	7
JUNIOR WORLD CHAMPIONSHIP	2 TITLES	0	2
	58 TITLES	19	39

#### **Montesa and Trial**

Montesa was founded in 1945 and quickly consolidated itself as a prestigious brand that manufactured high quality motorcycles. However, it wasn't until 1962, when it releases the popular Impala, that Montesa consolidated its position as one of the leading national brands.

Its commercial success led Montesa to explore new motorcycle fields starting with the development of off-road vehicles, in the trial discipline first, then in cross and finally in endurance. Specifically its involvement with trial started in 1967, when the brand launched the revolutionary 250 Trial, a model that, contrary to the ones that were currently leading the market, was equipped with a 2stroke engine that would soon become popular among other brands thanks to its simplicity and light weight. Since then, Montesa hasn't stopped developing new trial models as emblematic as the Cota 247, the Cota 348 or the Cota 349, a model that Ulf Karlson used to proclaim himself World Champion in 1980.

At the same time Honda was also working in the development of trial models, such as the sophisticated RTL260, a model developed completely by HRC and that was known for its revolutionary 4stroke engine with which Eddi Lejeune won 3 World championships from 1982 to 1984.

In 1983 Honda and Montesa signed a collaboration agreement for the production of Honda models in Montesa's facilities and in 1986 the Montesa Honda S.A. society is born.

In 1994 HRC participates along with Montesa Honda in the development of the Cota 314R, a model that was the turning point in the development of trial models. The Cota 314R won several World Championships and served as a basis for the first prototype of the Cota 315R with which Marc Colomer won the World Championship in 1996.

Montesa consolidates its leadership in the Trial World Championship with the spectacular Dougie Lampkin who, riding the Montesa Cota 315R, obtained the World titles of '00, '01, '02, '03.

After 5 consecutive world titles with a 2stroke engine, advancing the emissions standards that were set to begin in 2006, Honda and Montesa will develop a new model equipped with a 4stroke engine, the Cota 4RT, that debuted in the competition in 2004 even though the production model commercialization wouldn't be until 2005. Finally, since 2016, Montesa also features the 300RR model.

From 2006 to 2016, Montesa has consecutively won 9 world titles with its 4RT model, 9 of them with Toni Bou. (\*)

(\*) When this presskit was writted, Toni Bou was closed to win his 10th World Championship in the Italy GP

## Montesa 300RR '17 Specifications (racing version)

**ENGINE** 

**Type** Single, 4-strokes, 4 valves, SOHC, liquid cooled.

**Displacement** 288 cm<sup>3</sup>

**Diameter x stroke**  $80 \times 57.2 \text{ mm}$ 

Compression ratio 10.4: 1

Idle speed 1,800 min-1

**Engine oil capacity** 0.6 liters; Transmission: 0.57 liters

**FUEL SYSTEM** 

Carburation Electronic fuel injection PGM-FI

Throttle body 28 mm

**Air cleaner** Viscous, urethane foam element.

Fuel tank capacity 1.9 liters

**ELECTRICS** 

**Ignition system** Electronic, digital transistorized

**Ignition timing** 27° APMS (idle) ~ 45° APMS (10,000 min-1)

Sparkplug type CR6EH-9 (NGK)

**Starting** Kick to primary transmission

ACG output ACG 160 W

**DRIVE TRAIN** 

**Clutch** Wet, multiplate with coil springs

**Clutch operation** Hydraulic

**Transmission type** 5-speed

**Primary reduction** 3.166 (57/18)

**Gear Ratios** 1ª 2,800 (42/15)

2ª 2.384 (31/13)

3ª 2.000 (30/15)

4ª 1.272 (28/22)

5º 0.814 (22/27)

**Final reduction** 4.100 (41/10)

Final drive Roller chain #520

**CHASSIS** 

Frame type Diamond, aluminum twin spar

**Dimensions (L×W×H)**  $2,016 \times 830 \times 1,130 \text{ mm}$ 

Wheelbase 1,321 mm

Caster angle 23°

Trail 63 mm

Seat height 650 mm

Footpeg height 385 mm

**Ground clearance** 335 mm

Dry weight 72.0 kg

#### **SUSPENSION**

Front 39 mm TECH telescopic fork with aluminum tubes and spring

preload, compression and rebound adjustment. 167mm

stroke.

**Rear** Pro-Link system with SHOWA shock with spring preload and

rebound adjustment. 170mm stroke.

**WHEELS** 

Type Aluminum rims/spokes

**Rim size** Front  $21 \times 1.60$ 

Rear 18 × 2.15

Tyre size Front 80/100 21 (Michelin)

Rear 120/100 R18 (Michelin)

**Tyre pressure** Front 39 – 44kPa

Rear 29 – 34kPa

**BRAKES** 

**Front** 185 x 3.5 mm hydraulic disc with 4-piston caliper and sintered

metal pads

**Rear** 150 x 2.5 mm hydraulic disc with 2-piston caliper and sintered

metal pads

All specifications are provisional and subject to change without notice.