

# BikesMedia

Everything About Two Wheelers

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A buying guide



**HOW TO CHOOSE  
BEST MOTORCYCLE  
TYRE**

## 2017 CZECH GP RACE REPORT

**Marc Marquez reigns**  
at Brno after a  
sheer genius  
decision

## MEANING OF TRIUMPH

Bajaj partnership  
and the foreseeable  
future

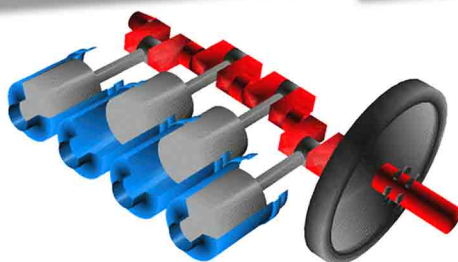


# New Bajaj Pulsar NS160

Test Ride Review



**Yamaha YZF R15-S**  
Test Ride Review



**Counter Rotating  
Crankshaft**  
Technology Explained



**Ducati  
SCRAMBLER  
Café racer**  
Overview

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**DUCATI SCRAMBLER CAFÉ RACER**

Launched In India



# New Bajaj Pulsar NS160

## Test Ride Review

When someone teaches us something he becomes a part of our lives and we cannot forget him at any aspect of our lives. Also he becomes so close to ourselves that we can never miss him through out our life. Exactly the same Bajaj has done to the Indian riders. It has taught and gratefully introduced the term speeding to the Indian riders. Also it has given a great competition to the other motorcycle manufacturing brands. The brand has launched a number of products in the Indian market and one of its products has become true love for the riders. Yes, we are talking about Bajaj Pulsar. Bajaj has launched its first Pulsar in the year 2001 and named it Pulsar Classic 150, against Hero Honda CBZ. Later on the Pulsar has ruled over the segments of 135 cc, 180 cc, 200 cc and 220 cc, the company was about to enter into 400 cc segment but had chosen a different name for the product- Bajaj Dominar 400.





## Rider's Note

Following the great success of Pulsar NS 200, Bajaj has stepped into 160 cc segment with a bang. Recently the company has launched its new Pulsar NS 160 and today we are going to bring you the Test Ride Review of the same, let's find out if it is going to be the rider's choice or not?

Although, the current motorcycling scenario belongs to powerful motorcycles and most of the people are looking forward to get a powerful motorbike for themselves but still there is a huge group which is looking for fuel efficient motorcycles in 150cc class. Introducing a motorcycle with 160cc engine producing best in class performance sounds good idea to tap the market which is seeking for a product which has best of both worlds- fuel efficiency and performance.

## Design & Looks

As the members of Pulsar family is increasing, the new Bajaj Pulsar ns 160 is too a part of it. Being a sibling of previously launched Pulsar NS 200 the NS160 looks absolutely identical to its elder sibling. It is really very difficult to differentiate between the two at a first glance, one need to take a good look to spot the difference.

The similarity between, both the Pulsar NS 200 and NS 160 is greatly due to their looks. Also we can say Bajaj has given its best to provide their customers the premium feel that they were seeking at lower price tag. The wolf face headlamp, wide fuel tank, sharp air scoops, rear set foot pegs, split seats, LED taillights, slim indicators are all similar to the outgoing Pulsar NS 200. It is only staring at the bike thoroughly it would let us know that the new NS 160 has got many differences in it like the bike is featured with an oil cooled smaller capacity engine (without big radiator upfront), a kick starter, slim front and rear tyres, smaller front disk brakes, only drum brake option at rear, puny front telescopic suspensions and on diet swingarm. These features define that this is a different bike and not good old Pulsar NS 200.





## Instrument Cluster & Switchgear



The new Pulsar NS 160 borrows same digital cum analog meter console from its elder sibling. The digital meter console which houses speedometer, clock, side stand indicator, trip meter, and a fuel gauge on the right hand side. Besides this there is a big round Odometer in the middle and at the left side it has got, neutral gear indicator, side indicators light, upper headlight indicator,

low battery and engine oil indicator and the logo of the brand. Below the Odometer there are two buttons to set the clock and to reset the trip. At the upper side of the digital meter there is a small indicator which glows when the rpm reaches above its limit.

The infamous wolf faced headlamp is also carried from NS 200 and has got a small visor with

two tiny lights which gets on as soon as we switch on the ignition, besides the headlamp there are two beautiful side indicators are placed. On the right side of the handlebar there is an engine kill switch and the self start switch is placed whereas, on the left side there is side indicator switch, horn switch, upper/ dipper switch, and a pass switch is placed.

Bajaj has been working on the quality of its switchgear and it is visible in its latest offerings but still there is room for improvement. The switchgear are backlit and they glow by the blue LED lights which seriously looks beautiful. The two wide mirrors on the handlebar really helped in taking turns, they were swift to be used and turned according to the need.

Moving ahead towards the taillight, the Pulsar NS 160 has got beautiful LED taillights followed by the rear indicators which are similar to the Pulsar NS 200. Below the taillight there is tiny white LED strip is placed which focuses on the registration number plate of the bike. In the front, behind the front wheel there are two leg guards placed at

both sides which actually looks little short but strong enough for the safety of the bike. As the bike isn't fuel injected so it has got a petcock/knob of the fuel in order to put the fuel on/off and it looks different from other regular carbureted roadsters.



## Ergonomics

As the bike is a roadster so it has to be comfortable and be a little sporty at the same time. As you throw your leg over the new Pulsar you would feel the perfect blend of comfort and control. Though it has got a small single handlebar but still it is compatible for rides even on the country side. We took the bike to a long country side road and it has actually served me with full comfort. The long and a bit wide rider seat was soft and firm enough for a comfortable ride and it remains like that throughout the journey.

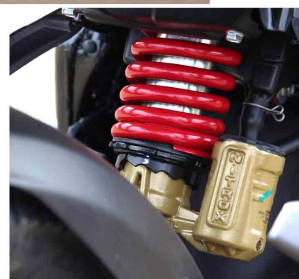
The footpegs are coated with soft rubber which protected my legs from stiffness. For the perfect riding posture the foot pegs are rear set and the overall posture is a little dedicated one. Also the gear lever and rear brake lever is coated with same quality of rubber, the rider's foot pegs are coated whereas the pillion might feel some hard time due to the metal foot pegs. The split seat as mentioned earlier is comfortable



and spacious enough for the rider but for pillion the rear seat might not be pleasurable. A hump given on the rear seat to give it an aerodynamic shape robs the show for the pillion.

The overall height of the bike is 1060 mm which is manageable for low heighted people too, whereas the bike weighs just 142 kg of kerb weight, so lifting it up for center

stand parking isn't a trouble. But lifting doesn't mean you can have it on your shoulders, unless you are a heavy weight lifter (pun intended).



## Engine & Performance

Bajaj has claimed that in 160cc segment engines the all new Pulsar NS 160 is the most powerful roadster till the date that means Honda's CB Hornet and Suzuki's Gixxer are going to face the trouble due to it. The bike is equipped with 160.3 cc single cylinder oil cooled DTSI engine which churns out the power of 15.5 PS @ 8500 rpm and 14.6 NM of torque @ 6500 rpm.

Well, this is what I can tell you that it is seriously a powerful roadster. The pickup of the bike is so convincing that it testifies being inherent of the popular sibling

the Pulsar NS 200. The five speed gears were so easy to change and helped me to transmit the power according to the need. Although I felt the trouble of false neutral at couple of occasions, but that might because it was a brand new bike. Going through a long incline hilly road was a easy task for the new Pulsar. When I had a pillion along with me and the bike was on the top gear, without crossing the rpm limit it reached on the up hill with the average speed of 45-50 km/h. The all new Pulsar NS 160 has got such a butter smooth engine that we for once compelled to compare it with the Honda engines.



Very limited or almost no vibrations was felt onboard, we can say a powerful engine with no vibrations (in this category). As we turn on the engine it offers a sound which is somewhat similar to the Pulsar NS 200, having the underbelly exhaust system. When pushed to its limits the bike didn't show any signs of overheating though being a 160cc single pot the engine has got its limits.

## Brakes & Suspension

For flawless and mesmerizing rides the bike must have worthy suspensions because the roads are never the same. The pleasure of riding a roadster didn't decrease because of its suspensions which were soft for the riders but stiff for the roads. The all new Pulsar NS 160 has got telescopic front suspensions upfront which actually look little thin but seriously work hard. At the rear the bike has got adjustable Nitrox filled monoshock absorber. We have tested the bike on-road & off road the new Pulsar performed well in both conditions and didn't trouble us. Also the suspensions help on the twist and turns making the ride planted and firm. We leaned the bike on a certain level and the suspensions, specially the monoshock performed the way that we were looking for.

Talking about the brakes, the NS 160 has got 240 mm disk in the front and for the rear braking it has got drum brakes of 130 mm. When riding in city the mostly used feature of every vehicle is brakes. So the brakes must be effective and responsive for a safer ride. And the disk brakes of NS 160 as well as the rear drum brakes were soft and much responsive. They gave the confidence of riding the bike at more than the average speed. But we cannot only rely on the brakes; tyres too play a huge role in the safety of the motorcycle. So the NS 160 has got 80/100-17 tubeless upfront and 110/80-17 tubeless rear MRF tyres, the soft rubber of the tyres gripped the asphalt and helps controlling the bike according to the rider.



### PROS

1. Powerful and butter smooth engine.
2. Aggressive pricing.
3. Beautiful looks.
4. Comfortable ride.

### CONS

1. Quality of switchgear.
2. Exhaust sound could have been improved.
3. Gear Transmission



## Verdict

**B**ajaj is the brand which has been serving to the Indian riders since past many decades and just not serving but also satisfying them on a great level due to its products and services. After so many successful years of manufacturing successful motorcycles it has never lacked behind in providing what today's generation is looking for and this is actually the reason of its success.

By launching the new Pulsar in the segment of 160cc engine with full swing Bajaj definitely makes other giant brands run for their money. The cons we have discussed are not the big ones but still if it would be in the heading of Pros, the bike won't be having any

competitor in the market. As we have said before the bike provides the feel of riding a powerful and aggressive roadster at affordable price point. The all new Bajaj Pulsar NS 160 costs 78,368/- INR ex-showroom India. The question asked in the beginning that, whether this bike is going to be the rider's choice or not? Well, the answer is YES, it can be and would definitely mesmerize the rider.



## Specifications

### GENERAL:

|          |                                    |
|----------|------------------------------------|
| Price    | Rs. 78,368<br>(ex-showroom, Delhi) |
| Launched | Jun, 2017                          |

### ENGINE:

|                     |                      |
|---------------------|----------------------|
| Engine Displacement | 160.3 CC             |
| Engine Type         | Oil cooled, 4 stroke |
| Number Of Cylinders | 1                    |
| Valves Per Cylinder | 4                    |
| Max Power           | 15.5 PS @8500 rpm    |
| Max Torque          | 14.6 Nm @6500 rpm    |
| Bore x Stroke       | N/A                  |
| Fuel Type           | Petrol               |
| Starter             | Electric-Kick        |

### TRANSMISSION:

|                   |        |
|-------------------|--------|
| Transmission Type | Manual |
| Number Of Gears   | 5      |
| Final Drive       | Chain  |

### WHEELS & TYRES:

|                        |                           |
|------------------------|---------------------------|
| Front Tyre (Full Spec) | 80/100 -17" 46 P Tubeless |
| Rear Tyre (Full Spec)  | 110/80 -17" 57 P Tubeless |

### BRAKES:

|                  |             |
|------------------|-------------|
| Front Brake Type | 240 mm Disc |
| Rear Brake Type  | 130 mm Drum |

### SUSPENSION:

|                  |                         |
|------------------|-------------------------|
| Suspension Front | Telescopic Fork         |
| Suspension Rear  | Nitrox Filled Monoshock |

### DIMENSIONS:

|                  |             |
|------------------|-------------|
| Overall Length   | 2012 mm     |
| Overall Width    | 803.5 mm    |
| Overall Height   | 1060 mm     |
| Wheelbase        | 1363 mm     |
| Ground Clearance | 176 mm      |
| Kerb Weight      | 142 kg      |
| Fuel Capacity    | 12.0 Litres |



# Y

amaha

initially launched the bike R15 in the year 2008, it turned out to be a spectacular motorcycle loved by most of the youngsters. They then updated the motorcycle in the year 2011, calling it the Yamaha R15 V2. It is a great motorcycle for a person who rides single and not for one who wants to carry a pillion rider for a long distance. Most of the potential customers wanted back the R15 with a single seat, so Yamaha decided to bring back the single seater R15 and named it the R15-S where S stands for standard (single seat).

## Road Test Review

# Yamaha YZF R15-S





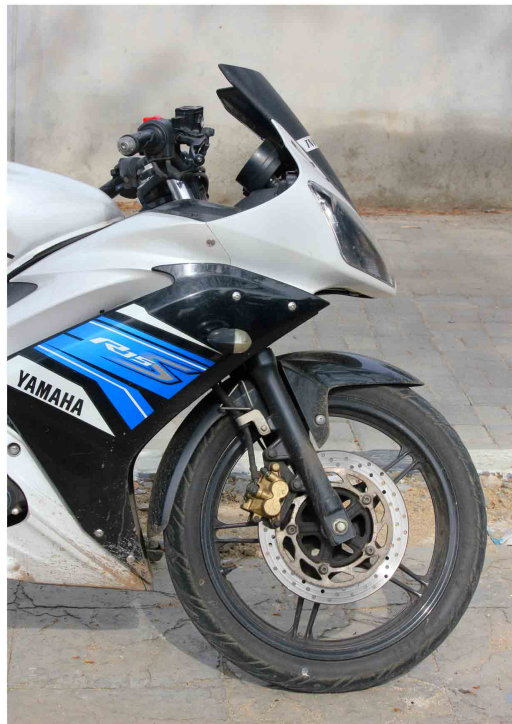
Yamaha brought inside 3 new paint jobs for the motorcycle that made it distinctive from the outgoing R15 V2, the changes are not very major, but are in a noticeable quantity. Let us find out what Yamaha R15-S has got for all of us-

## Looks and Design

The R15S, upfront looks very similar to the R15 V2, a small noticeable change is that the headlamps are placed a little higher on the R15-S, so the R15 V2 gets a little more aggressive look. The R15S retains the Delta Box frame which the R15 V1 didn't have. The twin dragon eye shaped headlamps don't still feel outdated past 9 years.

Coming to the side profile, the whole difference can be noted, gone is the tall split pillion seat, and there is a single seat which is more convincing for a pillion to sit. The R15-S gets the same exhaust that the R15 V2 gets. Coming to the rear section it gets a grab rail for the pillion which was missing on the V2.

The R15-S gets the same taillight as the R15 V1, but the tail light on the R15-S looks a little more clear. The rear indicators are placed a little closer, the motorcycle has lost the tire hugger as seen on the R15 V2, which is a sad thing. It now gets a single piece mud guard to which the number plate can be integer similar to what the version 1 had. The motorcycle comes in three colors, the Track White, Spark Green and the Adrenaline Red. My personal favorite among the three is the Track White.



The Yamaha R15-S shares the same digital-analog instrument cluster with the R15 V1 and R15 V2. The instrument panel feels a little outdated compared to its rivals. The meter console bags two trip meters, speedometer, tachometer, reserve indicator, tell tale indicators, neutral position indicator, sensor fault indicator. The motorcycle also gets a lean angle sensor. The quality of materials used on the switchgear is phenomenal, the buttons feel nice and premium to touch and use. The rubber used on the handlebars also feel soft to use.

## Instrument Panel and Switchgear





# Engine and Performance

The R15-S is powered by the same 150cc four-stroke, fuel injected, liquid cooled engine that is mated to a 6-speed gearbox. The engine churns out a power of 16.36 BHP at 8500 RPM and produces a peak torque of 15 Nm at 7500 RPM, where the R15 V2 produces a power figure of 16.8 BHP at 8500 RPM and it has the same torque figure.

The power produced by the motorcycle is very gradual, there is ample amount of power whenever you need it. The riding experience is very smooth there are not much of jerks, hassles or vibrations felt even at speeds above 100kmph. The gear shifts also feel smooth. The lower end torque puts the traffic riding at ease. Heat produced is minimal.

Some problems I noticed are problems faced during aggressive overtakes, that is where the motorcycle shows the lack of power. The power band lies between 5500RPM to 8500RPM, beyond which you are just over revving the motorcycle, if the power production began at around 4000RPM, then the overtaking issues can be compromised. My most favorite part of the motorcycle is the downshifts, they are really good and effective.

## Pros

- \* Single seat and grab rail.
- \* Engine quality.
- \* Low vibrations.
- \* Ride quality and experience.
- \* Still looks modern post 9 years.

## Cons

- \* Lack of features that modern bikes have.
- \* Lack of USD front fork.
- \* After Sale Service is slightly expensive.

# Specifications

## GENERAL:

|          |                                  |
|----------|----------------------------------|
| Price    | 1,14,741<br>(ex-showroom, Delhi) |
| Launched | Sep, 2015                        |

## ENGINE:

|                     |                         |
|---------------------|-------------------------|
| Engine Displacement | 149.8 CC                |
| Engine Type         | Liquid cooled, 4 stroke |
| Number Of Cylinders | 1                       |
| Valves Per Cylinder | 4                       |
| Max Power           | 16.6 PS @8500 rpm       |
| Max Torque          | 15.0 Nm @7500 rpm       |
| Bore x Stroke       | 57.0 x 58.7 mm          |
| Fuel Type           | Petrol                  |
| Starter             | Electric                |

## TRANSMISSION:

|                   |        |
|-------------------|--------|
| Transmission Type | Manual |
| Number Of Gears   | 6      |
| Final Drive       | Chain  |

## WHEELS & TYRES:

|                        |             |
|------------------------|-------------|
| Front Tyre (Full Spec) | 90/80-17    |
| Rear Tyre (Full Spec)  | 130/70- R17 |

## BRAKES:

|                  |             |
|------------------|-------------|
| Front Brake Type | 267 mm Disc |
| Rear Brake Type  | 220 mm Disc |

## SUSPENSION:

|                  |                       |
|------------------|-----------------------|
| Suspension Front | Telescopic forks      |
| Suspension Rear  | linked Type Monocross |

## DIMENSIONS:

|                  |             |
|------------------|-------------|
| Overall Length   | 2060 mm     |
| Overall Width    | 670 mm      |
| Overall Height   | 1070 mm     |
| Wheelbase        | 1345 mm     |
| Ground Clearance | 160 mm      |
| Kerb Weight      | 134 kg      |
| Fuel Capacity    | 12.0 Litres |

The motorcycle has a forward-biased riding position, it feels nice and sporty. For tall riders, it might be a little painful under traffic conditions. The rear set foot pegs give an aggressive and sporty feel to the rider. As a pillion, it feels like heaven when the co-rider sits behind, they have something to grab on to and more importantly the heads don't bang each other when the rider applies brake nor will the pillion experience any jerk under aggressive braking. The motorcycle weighs 134 kgs and is 2 kgs lighter to the V2. The motorcycle gets a 12-liter fuel tank capacity.

# Ergonomics

# Brakes and Suspension

The front end gets a 267mm single disc, and the rear gets a 220mm single disc. Being a proud owner of the R15 V2, I must say that the brakes that Yamaha provide are just phenomenal, the front brakes especially, they provide a good bite and feedback and do not lock up very easily. The rear brakes can be improved, they do lock up when they are applied aggressively.

The motorcycle will not let you loose confidence when you brake at any point. The front end gets a 90/80 R17 tire sourced from MRF and the rear end gets a 130/70 R17 MED REV Z tire. The tires offer decent road grip even at corners. The front gets the outdated telescopic suspension and the rear gets a monoshock suspension. The ride quality for the pillion is far better when compared to the R15 V2. The suspensions do a decent job in absorbing the pot holes.



# Ducati **SCRAMBLER** **CAFÉ** **RACER**

Overview



**D**ucati has launched yet another iteration of their much popular Scrambler in the form of a Café Racer. The motorcycle is designed completely retro styled along with all those modern touches like ABS, USD forks, large Brembo brake calipers and sticky Pirelli Diablo Rosso II rubber. During the launch, Sergi Canovas Garriga, MD of Ducati India told the press,

*This motorcycle is a modern interpretation of the legendary Café Racer from the 1960's that triggered a motorcycle revolution. We're very confident that with the Ducati Scrambler Café Racer, we will successfully bring the global cultural phenomenon to India as well*



Here's an overview of the newly launched Italian motorcycle.

## Design And Looks

The Scrambler Café Racer is designed to have the retro styled looks of early 1960's. The motorcycle is a mix of modern technology with an old school design. The motorcycle has those bar end rear mirrors, low clip on handlebar, single seat with a rear seat cowl and high set foot pegs. Though the bike shares most of the equipment with the Scrambler Classic and others, the way in which other parts are designed sets the motorcycle in a class apart.



The front end of the bike looks familiar and similar to a KTM Duke 390 with USD forks, 10 spoke alloys and a left side placed front disc brake. The sides look irresistible to any retro motorcycle lover, with the single seat with a rear cowl and a side number plate doing its job perfectly well. The rear section is minimal with integrated pillion grab rail under the seat, just in case if one wishes to remove the seat cowl. The rear tyre gets a plastic tyre hugger which has the number plate mounts on it.





## Engine & Performance

The Scrambler Café Racer is powered by the same liquid cooled 803cc Desmodromic L twin engine, common to the Scrambler siblings. The motor produces 73 hp at 8,250 rpm and 67 Nm of torque at 5,750 rpm respectively. The motor is fueled by EFI via 50mm throttle bodies. The motorcycle has a conventional 6 speed transmission and a APTC wet multiplate mechanical clutch unit. The bike gets a Termignoni stainless steel exhaust system, with aluminum covers on top donning a matte black shade.



## Brakes, Suspension And Chassis

The bike has a similar Tubular steel trellis frame with engine as the stress member. The front end is suspended by a 41mm Kayaba USD fork while the rear gets a Kayaba mono shock which is fully preload adjustable. Braking duties are carried out by a 330mm semi floating disc up front with a radially mounted Monobloc Brembo M4-32 4 piston caliper. The rear end has a 245mm disc with a single piston caliper. Anti lock braking system (ABS) by Bosch comes as a standard package. The wheels are 17 inch light weight alloys with 10 spokes, at both ends. The motorcycle has no electronic rider aids except for the ABS.



## Specifications

### GENERAL:

|          |                                  |
|----------|----------------------------------|
| Price    | 9,32,000<br>(ex-showroom, Delhi) |
| Launched | Aug, 2017                        |

### ENGINE:

|                     |                      |
|---------------------|----------------------|
| Engine Displacement | 803CC                |
| Engine Type         | Oil cooled, 4 stroke |
| Number Of Cylinders | 2                    |
| Valves Per Cylinder | 2                    |
| Max Power           | 73.4 PS @8250 rpm    |
| Max Torque          | 67.0 Nm @5750 rpm    |
| Bore x Stroke       | 88.0 x 66.0 mm       |
| Fuel Type           | Petrol               |
| Starter             | Electric             |

### TRANSMISSION:

|                   |        |
|-------------------|--------|
| Transmission Type | Manual |
| Number Of Gears   | 6      |
| Final Drive       | Chain  |

### WHEELS & TYRES:

|                        |             |
|------------------------|-------------|
| Front Tyre (Full Spec) | 120/70 ZR17 |
| Rear Tyre (Full Spec)  | 180/55 ZR17 |

### BRAKES:

|                  |                    |
|------------------|--------------------|
| Front Brake Type | 330 mm Double Disc |
| Rear Brake Type  | 245 mm Disc        |

### SUSPENSION:

|                  |                               |
|------------------|-------------------------------|
| Suspension Front | Upside down Kayaba 41 mm fork |
| Suspension Rear  | Kayaba rear monoshock         |

### DIMENSIONS:

|                  |             |
|------------------|-------------|
| Overall Length   | 2107 mm     |
| Overall Width    | 810 mm      |
| Overall Height   | 1066 mm     |
| Wheelbase        | 1436 mm     |
| Ground Clearance | N/A         |
| Kerb Weight      | 188 kg      |
| Fuel Capacity    | 13.5 Litres |

## Final Impressions

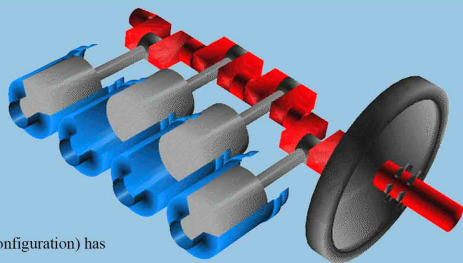
The Ducati Scrambler Café Racer is launched with a price tag of Rs. 9,32,000 (Ex showroom, India). Though the price seems to be a bit higher for a motorcycle of this kind, the retro and old school lovers would surely get their priorities sorted. The looks of this motorcycle is so deceiving that it could probably become the best selling model among the other Scrambler siblings. Ducati is also offering loads of additional accessories and apparels. The motorcycle comes only with a single colour option, Black coffee with golden colored alloy wheels.





## COUNTER ROTATING CRANKSHAFT

### Technology Explained



A multi cylinder engine (say inline four configuration) has 4 pistons connected to corresponding crankshafts to convert the horizontal motion of the piston into a rotational motion. Ever since the early days, the crankshaft was designed to rotate in a direction similar to the direction of the rotating wheels. Back in those days the crankshaft, connecting rods and the piston balancing counterweights were so heavy that the conventional rotation of the crankshaft caused a kind of a gyroscopic force which can significantly affect a motorcycles handling characteristics and front end feel.

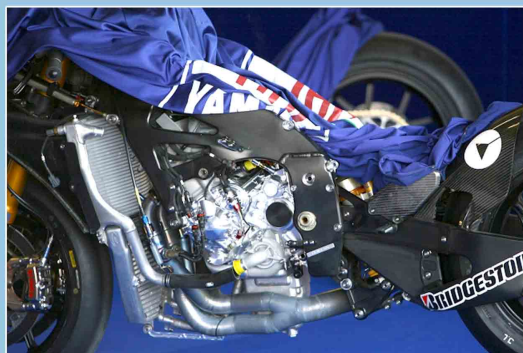
### The Solution

Though changing times resulted in better manufacturing technology and knowledge on strength of materials, the engineers were not convinced with that little bit of gyroscopic effect. So there came an idea to rotate the crankshaft in the opposite direction of the rotating wheels. By this change, the power wheelies under acceleration came down considerably as the gyroscopic force due to the heavy crankshaft now doesn't act upwards. But crankshaft rotating in the opposite direction means that, there needs to be an extra gear to convert the counter rotation. Only then the motorcycle would move in the desired forward direction.

### Counter Rotating Crank In MotoGP

At present, the entire manufacturers competing in the Premier class of racing run their engines backwards with the use of counter rotating crankshafts. Yamaha and Suzuki were the ones to use this technology regularly since a very long period of time, though Honda and Ducati have joined a year ago. Honda Racing Corporation (HRC) were the pioneers in the Grand Prix racing in the 1980's, as they were the first to introduce a counter rotating crankshaft on their 1987 NSR 500, and then won eight of the last thirteen 500cc Championships.

With present technology, the engine components are super light and the gyroscopic effect doesn't seem to be considerable. Yet, the engineers prove theoretically that rotating the engine in the opposite direction gives better stability to the bikes when going around the corners. But this comes at a price of putting an additional gear in the engine, which significantly reduces by engine horsepower by 7 to 8 bhp. This is one significant reason why the Hondas are not able to overtake the Yamahas on straights since 2016, in the way they did back in 2015. So everything



## Offset Type Rear Monoshock Suspension

### WHAT'S A GREAT DEAL ABOUT IT?

Seen a Ninja 650 or a Benelli TNT 300 lately? If not then go and check those out for two reasons. First, they are both amazing Bikes with hair raising performance and the other reason is that they sport unique lay down offset rear mono-shock suspension. What is it? Well, it's the mounting of the mono-shock suspension to one side of the bike. How it came to be? Well, there is a reason and a story behind it. Before we begin, take a good look at how exactly an offset rear mono-shock suspension looks like.

### THE HISTORY INVOLVED

The first front suspension in bikes was adopted before 1914 but many manufacturers didn't use proper rear suspension until 1945. Amongst the earliest were Indian, BMW, BSA, Aerial and Norton. In 1913 The Indian consisted of a swing-arm suspended from a leaf spring. These earlier swingarms have evolved so much over the years that if any rider, who is very much interested in vintage bikes, only knows that these type of setups actually existed long ago.

The modern day everyday bike consists of a twin shock setup at rear



with regular swingarm which is pivoted at the front to the bike's frame. This too was soon replaced by a mono-shock suspension. In the earlier days, mono-shock appeared only on the niche motorcycle market but its appearance on motorcycles from popular companies such as Yamaha and Suzuki led to its commercial dominance.

The primary goal while installing Monoshock suspension was to save weight as bike manufacturers removed one of the suspension and redesigned the swingarm to fit the single shock centrally to it. But companies were still not satisfied with the performance so they tried to change the design of the swing arm. This time the swing arm evolved to be known as "single-sided mono-shock swing arm", the design was made possible by light weight and strong material as the swingarm bears all the stress from the rear axle offset to one side.

### THE SETUP AND ITS REQUIREMENT

Contrary to the double-beam swingarm which needed to have longitudinal stiffness, the single sided design needs to have the torsional stiffness to prevent it from twisting when offset load is applied, as a result, single sided swing arm were made bigger with a lot amount of cross-bracing inside them.

In 1980's BMW introduced the offset monoshock setup, where the shock unit was mounted to one side of the bike instead of the centre. The driveshaft ran down inside the single sided swing arm and into the rear drive. This removed the need to make swingarms which were heavily engineered at the front, which was earlier needed to resist the torsional load of mounting the wheel to a single sided swingarm. This is how its requirement came to be.



### FINAL THOUGHTS

Over the years since 1980, the design has significantly improved. The reduction of heavy engineering at the front of swing arm also allowed single sided swingarm to lose more weight and become more performance oriented. Nowadays such a design can be seen on popular like Benelli TNT 300, 899, Ducati scrambler Desert Sled, Ninja 650 etc. In the end, the offset setup is just one of the ways how a monoshock suspension can be mounted on a bike, there isn't enough scientific evidence to know exactly how much this setup improves the performance but everyone on God's green earth is learning and figuring out new cool stuff as they are going. Do give us your thoughts about this article and for everything related to motorcycles, stay tuned to BikesMedia.



# HOW TO CHOOSE BEST MOTORCYCLE TYRE

## A buying guide

Tyres are the only thing that connects the bike to the road and affects directly how a bike performs regardless of its engine specification. The motorbike's performance depends a lot on the type of tyres you put on. Now, A separate spectrum of tyres exist alongside the world of motorcycle and an average Indian rider is more likely to buy a new set of aftermarket tyres before he installs a free flow exhaust, sprocket or brakes.

Choosing the correct tyre for your ride is one thing which requires absolute knowledge of your bike's specs, the weather in which you're going to ride, road conditions, brakes and the list goes on. But what we can easily do is not select the wrong type of tyre for our bike and then from there, we can choose which one suits us best. In this article, we will be taking a look at a number of parameters to choose before you buy a new set of tyres for your ride.



The Tyre Compound basically defines the nature of the rubber and essentially tells us how well the tyre will grip on the road. The compound of the tyre is mainly of three types, though there may be more depending upon the different type of manufacturers.

### 1. Soft Compound Tyres-

- The first type is Soft compound tyre, now two types of tyres mainly come under this type, they are Slicks and Hypersport. Slicks are found on MotoGP and other track bikes and Hypersport can be found in high-performance bikes like Yamaha R1. The soft nature of the compound means the grip on these tyres is really very good and they perform flawlessly but soft compound tyres with no treads can't be used in rainy conditions. Hypersports too are 80% track and 20% street focused, these are just Slicks which are modified with some treads to make them just marginally road legal.

There are also other tyres in the lower price range from MRF and Metzeler which offer soft compound grip with superior treads, but a downfall of all the tyres in the soft compound category is that they average out very little life in them it can range from 2 track sessions to a maximum of 12000 kilometres (approx). So keep in mind, outright performance also demands outright money.

### Tyre Compounds



### 2. Hard Compound Tyres-

- The second type is Hard compound, now these are on the opposite end of the spectrum entirely, if slicks were entirely track focused then these are made just for almost everywhere but the tracks. The tyres under this category are very hard and have a high load bearing capacity. They also possess high wear resistance. Hard compound tyres are mainly found on cruisers like Harleys and Indians; they are meant for riding long distances and taking on whatever nature throws at them, be it the rain, the dirt or bad roads. There is one place where these tyres suck and that's the corner. Being made out of a hard compound they don't stick to the road as WELL as Soft Compound tyres and thus performance in the corners and at high speeds take a back seat, but these do average out quite a long life in them.

### 3. Medium/Dual Compound tyres-

- The third one is Dual compound tyres and as you can say, it's the best of both worlds. These, as the name suggests are made up of both hard and soft compound to make it work better on both the track and the road. In these tyres, the main width of the tyre is made up of a hard compound with treads and the side wall of the tyre, above the rim of the wheel, is made up of a soft compound rubber. This ensures that you get enough grip in the corners and while riding in the rainy season. These offer performance and also a decent bang for your buck as they last quite long. Many of the sport touring tyres are of a dual compound.



### Treads on the tyre



I cannot stress this point enough; one should always choose the size of the tyre as indicated by the manufacturer. Many people do this mistake and hamper the full performance of their bike. The size of the tyre also affects the mileage of the bike. Installing a tyre bigger than the intended size will result in an increase in Rolling Resistance which will put stress on the engine thus mileage will be reduced.

### Size of the tyre



### Tube Type or Tubeless Tyre

Almost all the bikes in the premium price range today are equipped with a tubeless tyre instead of a tube, and which is a good thing. A tubeless tyre is reliable, more advanced and much safer. You can take your tubeless tyre almost anywhere without the fear of getting it punctured, even if it does get punctured it can still go on for 60-70 kilometres. The repairing of the puncture is also quite easy; with a small puncher kit one can repair a tubeless tyre all by himself.



### The Carcass of tyre

The Carcass is the internal structure buried inside the tyre and acts as its skeleton. 80% of stress on the tyre is absorbed by the carcass. These are of two types Radial and Bias. In radial tyres the tread and the sidewall can function as two different units, which results in less transversal slip and more power transfer to the ground. In Bias tyres all sidewall flex is transmitted to the tread which ultimately results in increase in slippage. This type of tyre does not remain in contact to the ground as the Radial one so it results in loss of engine power transmission.

In the above paragraph, you must have read this word in many sentences. Tread is basically the rubber pattern made on the tyre which makes contact with the road.

Different types of treads have different types of patterns on them. On Slicks there are no treads, on Hypersports these are some, on Street, Dirt and Sports touring tyres they are adequately present.

The main function of the treads is to maintain the traction of the bike in all riding conditions, especially in rainy conditions. The more treads on a tyre, the better it will be suited for the rain. On street and sports tyres, these are present on the middle surface of the tyre as it is the part which is in contact with the road most of the time. On the other hand tyres on Dirt bikes the treads are placed as big blocks with a lot of space between two consecutive chunks.

In order to figure out the correct size of the tyre, we can check the Tyre Rating Code written on the side wall of our stock tyre or by referring to the owner's manual. The Rating could be seen written in this format- '100/70 - 17'. This means that the width of the face of the tyre is 100mm, the width of the side wall of the tyre is 70% of 100, keep in mind that the second figure is always the percent of the first one. In this case, 70% of 100 is 70mm so that's the height of the side wall. 17 is the size of the rim which is in inches.

### Conclusion

These are all the basic things which one should keep in mind while buying a tyre. Take the bike you have, consider the places you want to take it, how much you want your tyres to last and select the one which ticks all the right boxes. If you need any questions answered do comment in the comment section below and we will make sure to reply them. For everything related to your favorite motorcycles stay tuned to BikesMedia.



What came a rather surprising news for Indian auto enthusiasts on August 8 is the announcement of a global partnership between the iconic Triumph Motorcycles and Bajaj Auto Ltd. Triumph Motorcycles India informed this non equity partnership with Bajaj through a press release. This partnership was the least expected at this time, as there were various rumours regarding Bajaj buying Ducati. Here's what the partnership says, and it's future for the Indian automobile giant and the British marquee.

## MEANING OF TRIUMPH

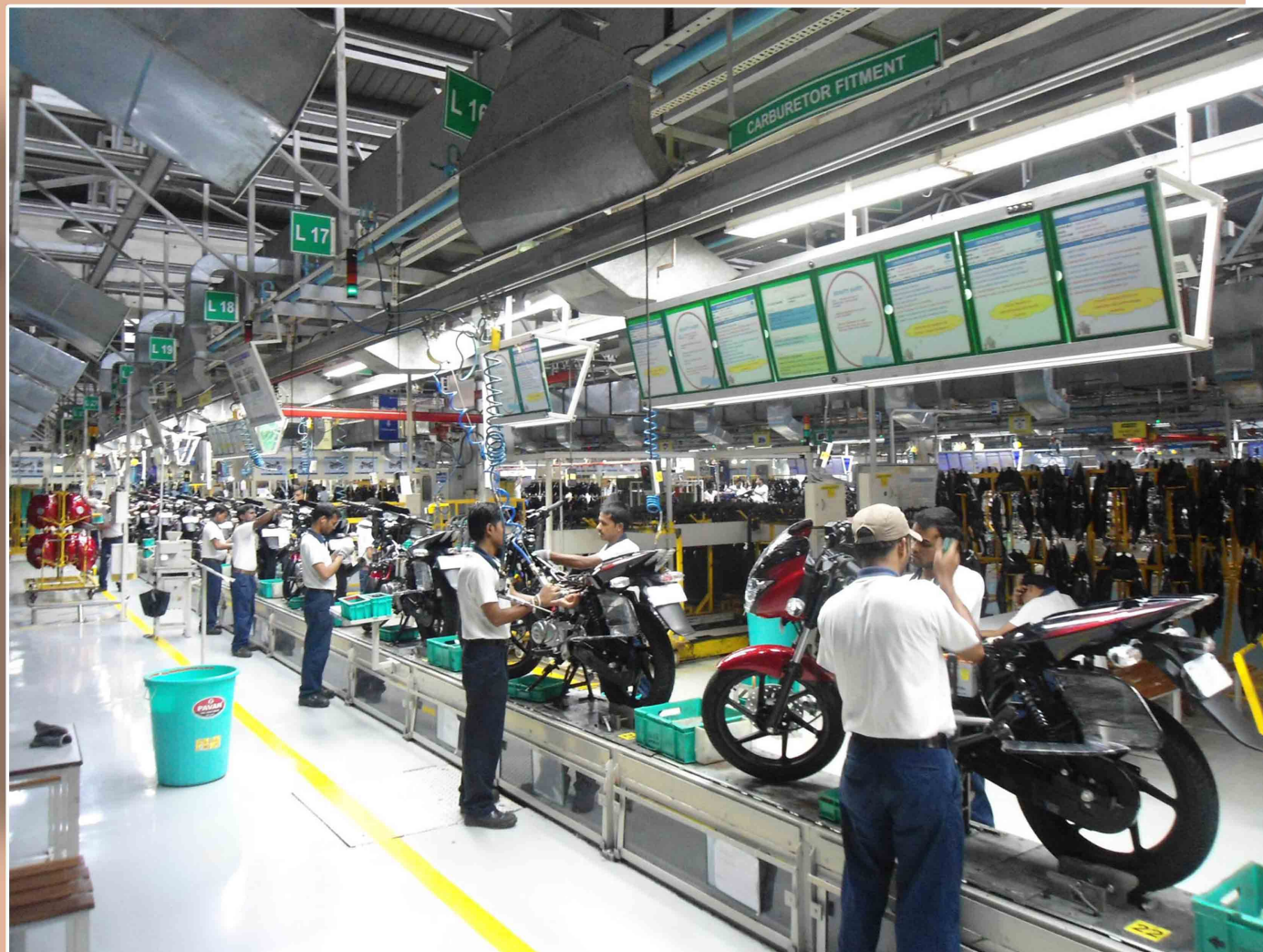
# BAJAJ PARTNERSHIP AND THE FORESEEABLE FUTURE

### The Partnership And Its Future

Bajaj and Triumph have signed this deal to produce and deliver a range of outstanding mid capacity motorcycles. The point to be noted is, the partnership isn't for an one off motorcycle as they have clearly mentioned it to be a range of motorcycles. We could expect this to exist close to at least 5 years, given the calibre of both manufacturers. What seems to be viable is a motorcycle which is exceptional in design and technology powered by Triumph, along with the cost effectiveness and distribution on the hands of Bajaj. Triumph has targeted to expand its reach to the emerging markets and higher volume market segments with this deal. On the official press release it is quoted that,

*Bajaj will gain access to the iconic Triumph brand, and its great motorcycles, enabling it to offer a wider range of motorcycles within its domestic market and other international markets.*

With this being said, Triumph could now easily access rest of the global markets with the help of Bajaj whereas Bajaj would get the advantage of learning their design and development technology. Bajaj changed Indian motorcycling to a whole new level after the introduction of KTM right here, and is soon on the verge to do yet another masterstroke. The motorcycle emerging from this partnership might have a Bajaj branding in Africa, South America and other ASEAN countries whereas the other advanced markets would get a small capacity Triumph.



**Bajaj Auto Ltd. manufacturing plant at Chakan, Pune**



## 2017 Czech GP Race Report

### Marc Marquez reigns at Brno after a sheer genius decision



**M**arc Marquez made a tactical masterstroke in the flag to flag race at Automotodrom Brno, taking the chequered flag with a humongous lead. Teammate Dani Pedrosa also rode a rather perfect race, grabbing P2 for a Honda 1-2. Fellow Spaniard and Movistar Yamaha rider Maverick Viñales completed the podium with a P3 finish. "The Doctor" Valentino Rossi finished the race at P4 after a wonderful ride from P13 at one point of time.

After a soaking wet restarted Moto2 race, it was time for the big boys to get into action. MotoGP was announced as a wet race and the whole lot of riders were on Michelin wet rubbers. As the lights went off, Jorge Lorenzo quickly got the lead and lead the race on the Ducati equipped with new aerodynamic fairing. The track dried very quickly and a completely dry racing line was evident on the entire track. On lap 2, Marc Marquez made a gamble to pit for a bike with slick tyres which became a tactical masterstroke at the end.

Every other rider in the leading group didn't know about Marc pitting, and continued on wet rubber. It was only at the end of lap 6 that leading riders Valentino Rossi and Andrea Dovizioso came for a swap. Meanwhile Marquez began to fly on the slicks, leading the race by a huge margin. Lorenzo on the other hand went to the pits when the bike was not even ready, which resulted in a very poor result at the end. At the end of the lap, Rossi, Viñales and Dovizioso were

all seen below P10.

It was job to be done for most of the top riders at the back. Aleix Espargaro was seen fighting for a podium position, though he was penalised with a 3 place penalty due to an incident with Andrea Iannone in the pit lane. Danilo Petrucci and Cal Crutchlow were also inside the top 5 looking for a podium contention. Maverick Viñales started to attack and was seen overtaking the pack. With around 10 laps remaining Valentino Rossi and Desmo Dovi started to hammer down and came inside the top 8 position. Valentino Rossi started to lap faster than the fighting pack and was soon seen battling with Cal Crutchlow.

At the end Marquez won the race by 13 seconds, followed by Pedrosa and Viñales completing the podium. Valentino Rossi passed Crutchlow for a P4, adding those vital points to the championship standings. Cal Crutchlow came home at P5 followed by Andrea Dovizioso and Danilo Petrucci. The top 10 of the standings was completed by Aleix Espargaro, Pol Espargaro and Jonas Folger.



Jorge Lorenzo dropped below like a stone in water and ended up at P15, scoring just 1 point with the new aerodynamic fairing.

The grid now moves to Austria at the Red Bull Ring, Spielberg in a weeks time. The Austrian track has many long straights and is a clear favorite for the Ducati, which was evident last year. Meanwhile stay tuned to BikesMedia for further updates on the 2017 MotoGP World Championship.

## 2017 Austrian GP Race Report

### Andrea Dovizioso thrashes Marc Marquez after last lap duel



**A**ndrea Dovizioso riding the Ducati missile won the third race of this season after an epic battle with Marc Marquez. This race would certainly become one of those gems in the likes of Laguna Seca 2008 or Catalunya 2009. Marc Marquez finished in a close second place after trying it all in the last corner. Dani Pedrosa completes the podium, making it his 7th visit in 9 races.

As the lights went out at the Red Bull Ring, it was Jorge Lorenzo who took the lead from Marquez. Viñales also ran wide at Turn 1, allowing Lorenzo in. It was Lorenzo, Marquez, Dovizioso, Zarco, Rossi and Viñales at the front fighting closely without much of a gap. Jorge Lorenzo as usual began to drop off and was passed easily by both Marc Marquez and Andrea Dovizioso.

Zarco and Rossi then put up a tight battle, which resulted in Rossi going in too hot at Turn 1 allowing both Zarco and Viñales to peek in. Meanwhile Dani Pedrosa hammered down to catch the lead group, and was seen at P3. Marquez at the front had his intentions clear, as he made a blistering move to pass Dovi at turn 7 using the maximum of his corner speed.

It was not the end, as Dovi lined up Marquez to attack. The last corner in the last lap saw Dovizioso and Marquez in a battle similar to Catalunya 2009, but this time the front runner closing the door shut. This last lap will be recorded as one of the bests in years to come. With Dovi, Marc and Dani completing the podium, Jorge Lorenzo came home at P4 which would be a huge confident boost.

Johann Zarco finished at P5, followed by Maverick Viñales and Valentino Rossi at P6 and P7 respectively. Alvaro Baustita and Loris Baz were both impressive finishing inside the top 10. KTM Factory test rider Mika Kallio made a wildcard entry and finished at a very competitive P10. Andrea Iannone and Scott Redding complete the top 12 of the points table. Aleix Espargaro, Karel Abraham and Cal Crutchlow finish at point scoring positions. Jack Miller crashed at the end of lap 9, while Jonas Folger and Pol Espargaro suffered mechanical failures.



The grid now moves to Great Britain in two weeks time, for the British GP at the legendary Silverstone circuit. Meanwhile, stay tuned to BikesMedia for further updates on the 2017 MotoGP World Championship.



## OFFICIAL

## Bajaj Auto and Triumph Motorcycles undergone a global partnership



In a very surprising manner the giant Indian automaker Bajaj Auto Ltd and the iconic British motorcycle marquee-Triumph Motorcycles have announced their global partnership.

Through an official Press Release Triumph Motorcycles India has informed that they have undergone a non-equity partnership with Bajaj Auto Ltd. The rather surprising and pretty exciting news comes at a time which is not been considered as 'good time' for the automobile industry post GST and Demonetization event. A time when we've seen global automaker like GM leaving our shores, this tie up is considered as a very positive sign for the industry.

As per the official statement by the company both auto makers will be benefitted through their individual strengths in both domestic and international markets.

Triumph Motorcycles is looking forward for the vast domestic dealership and service network of Bajaj Auto Ltd, whereas the Indian company will be eyeing on the engineering prowess of the British automaker as well as its iconic image across the globe.

The partnership between both the giants could be turned out as an imminent global event as both the parties are targeting on the Mid-Size motorcycle market in India and abroad. More details on the event is awaited, keep watching the space as we will bring you the updates.

## DUCATI SCRAMBLER CAFÉ RACER Launched In India

Ducati Motorcycles India has launched another variant of their Scrambler series- Café Racer. The bike is based on the Scrambler platform and it shares the underpinnings with the other outgoing Scrambler motorcycles. The new motorcycle is powered by the air and oil-cooled EURO 4-compliant 803 cc L-twin engine. The Desmodue engine of the new Scrambler Café Racer is capable of producing 73 hp of power at 8,250 rpm and 67 Nm of torque at 5,750 rpm.

The new Café Racer possesses the best of the two worlds, the bike has the design language of the Scrambler brand and a sporty riding position.

The Ducati Scrambler Café Racer features classic rear-view mirror mounted on aluminum clip-on handlebars. The bike also has Termignoni exhaust with dual tailpipes, black anodized aluminum cover and a dedicated seat featuring a cover for the pillion.

The Scrambler Café Racer also has a dedicated line of accessories and apparel. The bike is now available in single Black Coffee colour with black frame and gold wheels across all Ducati dealerships in Delhi NCR, Mumbai, Bangalore, Pune, Ahmedabad & Kochi. Ducati has priced the new Café Racer at INR 9,32,000/- (EX-Showroom, India).



On the launch occasion, Sergi Canovas Garriga, Managing Director of Ducati India said,

*This motorcycle is a modern interpretation of the legendary Café Racer scene from the 1960s that triggered a motorcycling revolution. It represents the expression of free spirit and is an icon of style for enthusiasts. We're very confident that with the Ducati Scrambler Café Racer, we will successfully bring the global cultural phenomenon to India as well.*

## YAMAHA FAZER 25 LAUNCHED IN INDIA



Yamaha Motor India has launched the 250cc faired 'Fazer25' motorcycle today at a launch event organized in Mumbai. The fully faired Fazer25 is the faired avatar of the naked FZ25, the bike shares all the underpinnings with its naked sibling. Apart from the full fairing rest of the motorbike is essentially a FZ25. The massive fairing on board makes the new Fazer 25 stand apart from the rest of the competition; however the overall design of the bike is either love it or hate it at first sight.

The new Yamaha Fazer25 is equipped with same 250cc oil cooled single cylinder engine, churning out 21 Ps of power output at 8000 Rpm and 20.5 Nm or torque at 6000 Rpm. Similar to the power mill the new Fazer25 is featured with same brakes as its naked sibling, the front is equipped with 282mm single disc brake whereas the rear has got 220mm single disc brake setup. The new Fazer 25 is also suspended on the same setup- the front telescopic suspension and rear adjustable monoshock.

The additional front fairing at the new Yamaha Fazer25 adds few kgs more to the bike as compared to the FZ25 but the aerodynamic advantage it provides to the rider makes it a worthy contender for those who are looking for a budget tourer. Tall single handlebar and the fairing mounted large windscreen adds to the persona of touring motorcycle, however it will only be determined after a thorough test ride whether it is going to be true to its name.

The bike comes in two dual tone color options, Soulful Cyan and Rhythmic Red opposite to its streetfighter naked sibling- FZ25. Yamaha has priced the new Fazer25 at INR 1.28 Lakhs (Ex- Showroom, India).