

# **BikesMedia**

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**Everything About Two Wheelers** 



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# What to expect from updated TVS Apache RTR 180?



From Honda to Bajaj, Colour update or as the Motorcycle Industry likes to call it "Graphical Update" has been the Ultimate tool for Manufacturers to justify releasing a "new" model of the same bike. It has become nothing short of a half-baked attempt to lure in more customer, in order to hand over them the same old product. We think its about time that this whole "process" must update itself, as no longer a simple colour update supports the definition of a revised Motorcycle. Recently RTR 180 received a race spec colour update. So instead of just reporting it to you guys, we have come up with a list of actual upgrades which the company can probably use in their next iteration of the bike.

## 1: Better Tyres-

TVS Ramora sits between a low spec MRF tyre and a Eurogrip one. The compound used in the tyres is hard and offers little to no grip. TVS should at least offer an MRF Zapper tyre which can provide confidence to the rider in corners. A size upgrade too can spell good grip as the current 110/70 tyre is severely thin compared to the 17 PS which the motorcycle has to offer.

## 2: Fuel Injection-

Apache RTR 180 already has dual disc brakes and dual-channel ABS. The addition of a Fuel injection will completely seal the deal. Not only will it make the initial power delivery more crisp and free of jerks, it will also smooth out a lot of vibrations in the top-end of the bike. Increased fuel economy and relatively less maintenance of the Fuel injector are some of the other advantages of a Fuel-injection over a normal carburetor.

## 3: Better quality chain-

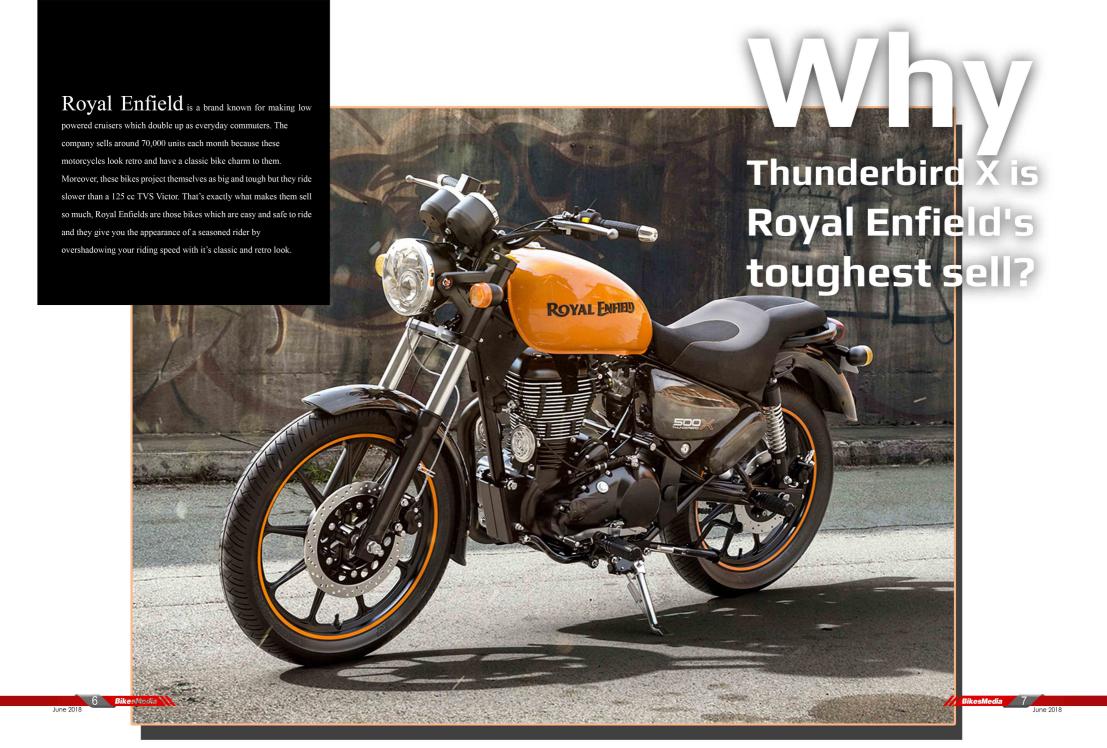
The Chain on the bike has been kept exposed considering the powerful nature of the 180 cc engine. Such a chain is naturally expected to stay more resistant to dust and dirt present on the road. Sadly it's not the case, on various TVS service forums you can see long lists of problems related to the poor quality of the chain. It loses lubrication way too quickly and requires tightening after every 300 km/s. In its case, a better quality, durable chain can really make a lot of difference in user experience.

#### 4: Fat forks-

Recently Pulsar 150 was upgraded with thick 37 mm front forks but the RTR 180 still comes equipped with thin front forks. They not only rob the ride quality of the motorcycle but also fail in providing good highway stability.

We understand that given all these changes, as standard features, in one update is not possible. What is possible is offering them as options, just like the company offered them on RTR 200 4V.

Apache RTR 180 has been in the market for a long time and for good reasons. The performance of the bike is still one of the best. The addition of twin-channel ABS and the fact that it has a 16-litre fuel tank makes it a great bike for touring. TVS has done a great job by not discarding the "Hyperbeast" design, despite launching the new Draken concept models. It can do one even better by offering some of the above-mentioned changes. That's it for now and for everything related to Motorcycles, stay tuned to BikesMedia.





The company have justified the existence of their high capacity low powered engines, by being a part of history. Every part of the motorcycle represents a long-lost story and the way the whole bike works is an amalgam of it. So, for years they have used an ammeter in their bikes and have refused to give a fuel gauge. Some years ago, they launched the Thunderbird series of bikes, which carried the same engine but had cruiser styled bars and a fuel gauge along with other modern-day basic necessities like a trip metre. To their surprise, their most selling model still remained the Classic 350 which had none of those features. The company did notice however that people were buying the stock Classic 350 and modding them with alloy wheels, different handlebars.

So, Royal Enfield decided to tap into that market by utilizing their mass production facility to "cost-effectively" install all those mods by themselves and sell them in a neat package. Although it did succeed as they were finally able to install alloy wheels on the age-old chassis, they abandoned their ethical high ground while doing so.

As I explained above, the reason why Royal Enfield motor-cycles sell so well is that it is backed by the company's long and rich history. Those motorcycles which we see today are all inspired by one or the other bike which took part in a historical event. The classic 350 is the modern day version of Model D. The flying flea's ability to go anywhere is represented by the Himalayan. Even the modern day GT series is inspired by the original GT 250 which was once the fastest 250 cc motorcycle in Britain.

Talking about the inspiration for Thunderbird X inspiration and we have ourselves a little trouble. Just to be clear, I am not against the alloy wheels or any of the modern technology which the bike uses. In fact, I am glad that it finally happened. I am however not particularly convinced how it had happened.

See, I can tolerate the buzzy long stroke, terribly counter balanced motor on the Classic 350 because it has some legacy to back up with it. Even if I lose a race against a Pulsar 220, I can gather the rest of my joy in the fact that my bike has helped people win wars. But when the same happens to me on Thunderbird X, what's my excuse then. The only reason I lost is that of my inability to understand the working of an Internal Combustion because I clearly didn't know that 19 HP being produced by a 350 cc engine on a sub 190 kg body isn't enough. On the Classic 350, I was carrying the weight of winning a war on my shoulders, that's why the bike couldn't move faster. This time, however, I have just copied the work of literally every Royal Enfield modder in Karol Bagh. To me, that's a pretty big downfall.

Thunderbird X tries to correct those aspects of the bike, which it thought was its mistake but they were the only thing which gave it a reason for its immense popularity. If Royal Enfield were to work on their engine to deliver a smooth running motor in order to correlate with the fast moving pace of today's generation, then sure, Thunderbird X would have been the complete package. As it would be a brand new product and not just an unoriginal mod job. Unfortunately, It carries the sins of its fathers without any of the qualities and charm that they had. There is nothing much else to say about it, it's just like every other Royal Enfield out stops slower and it vibrates.

The feeling of the wind on our faces is one of the reasons why Riding a motorcycle will always remain a special feeling. But as we started going faster, that same wind turned from a well-greeted mate to just an obstruction. Along came the Motorcycle fairings which provided us with protection from wind blasts and allowed us to remain in our seat comfortably at speeds of 220 km/h. One would think that the coming of such an invention must spell an end-point for the old naked style motorcycles, but that was never the case. In fact, naked bikes now are more popular than ever. So let's take a look at the current motorcycle trend which is fueling the birth of new Naked counterparts of famous faired motorcycles.



# NAKED BIKES ARE POPULAR AND WHY THEY SUCK



# Cons Of Faired Bikes Over Naked Motorcycles-

# No Space

Like it or not, our world is getting crammed as we speak. There is less space everywhere, on the highway, in the city and even on expressways. A faired bike in such a condition only proves useful when it's ridden at its full limits on an empty road. Rest of the time, the big fairing just makes it difficult to cut through traffic.

# More low down torque

Since Naked motorcycles are not able to achieve the same high top speed which proper sports bike can. They make up for it by providing a quick release of low-down grunt. The torque is more "thick" in naked motorcycles and peaks quickly than in a sports bike. The argument against this can be made by mentioning that sports bike don't need so much of torque because they can rev higher but 90% of riding is done in the cities, not on the highway, so it doesn't matter.

In modern times we are seeing a lot of naked motorcycles being taken out from fully-faired motorcycles. Yamaha FZ-10 is just an R1M on the inside. It even has that aggressive riding position along with the same engine tuning. Same goes for the new Triumph Street Triple RS which has almost the same power to weight ratio as Daytona 675R. KTM, on the other hand, refuses to release a sports bike which can be compared to their monster Super-Duke 1290R.

# Fragile

The more you have, the more you can lose. Riding a full-faired bike is a total blast but the fear of getting your fairing scratched is always persistent. Although there are Frame Sliders which boast of protecting the precious paint on your bike, they are still no match for a leg-guard. The Robust nature of a naked bike is its the greatest strength. You can easily drop it anywhere without the fear of any part getting bend out of shape.

The world is shifting towards naked motorcycles because of a million reasons and all of them are somehow related to a "hassle-free riding experience". Whatever may be the case, sports bike fans need not worry as their favorite machines won't be going anywhere. They might not get updated as soon as other bikes but it will only make them feel "Brand new" for long. Ok, enough criticism about sports bike. While they lack some features, they have some others at their disposal.



# **Pros Of Faired Bikes Over Naked Motorbikes-**

# They are fast and look the part

The faired version of any motorcycle will be the fastest one. Take Apache RR 310 for example, it has a top speed of 160+ km/h but its naked counterpart the BMW G310R can only go up to 155 km/h. Even while standing still anyone can tell that the Apache is faster than the BMW.

# **Better handling**

Although it's debatable, generally supersport handles better than a naked bike. RC 390 for example, has a razor-sharp handling. Its paternal twin Duke 390 comes close but there is no alternative for low-clipons which provide superb feedback from the front suspension.

# Comfortable highway riding

You never know how much of a blessing is a windshield until you haven't experienced it. A fairing can make your long journey either an amazing ride of leisure or a struggle. Fairing obstructs you and your bike in traffic but it makes you feel enclosed in an invisible bubble while riding. Not only it prevents wind blasts but also gives you the confidence to go as fast as possible.

A naked bike is every minimalist's choice, it does the job and is quite versatile.

Still, there are a lot of people who want the taste of that highway life. Are you one of those? Let us know in the comments and until then stay tuned to





# Pulsar 200 NS Vs Yamaha FZ-25

It's the battle of the Naked motorcycles. Pulsar 200 NS has been in our market, almost unchanged since 2012. It is only challenged by its foreign sibling the KTM Duke 200. On the side of the Japanese, the FZ-25 represents the collective stride of Yamaha's R&D which has given us a specially designed bike for India. So without wasting any time, let's compare these two and settle the score.

# **Engine and performance**

Bajaj Pulsar 200 NS comes with a 4-Valve liquid cooled carbureted engine, whose specialty is its top end. It can rev itself to 9500 RPM and even beyond. The bike's top speed of 140 km/h is a good indication of how good the top end is. The power delivery is linear but it starts off slow in the low revs, past 4500 RPM is the place to ride this bike because, beyond this point, the bike just flies away. Its specificat. include 18.3 NM of torque @ 8000 RPM and 23.5 BHP @ 9500 RPM. The 4-Valve design of the engine, allows it to rev higher than the competition and the triple-spark makes sure that the combustion doesn't release unburned hydrocarbons and more Carbon mono-oxide.

Yamaha FZ-25 comes with a 2-Valve air and oil cooled fuel injected engine which makes a lot of torque throughout its rev range. It produces 20 NM of torque which hits as soon as 3000 RPM then continues up to the mid-range at 6000 RPM. The power delivered from the 250 cc engine is 20.69 HP, it is intentionally kept low to make the engine a workhorse. As a result, the bike can be used continuously for long hours because the engine always remains underutilized and stress-free. You can be skeptical about the 2-Valve nature of the engine but the fuel-injection somehow makes up for it. The gearing on this bike is low and there are only 5 gears to play with. Unlike the Pulsar, it doesn't have a smooth top end and past 110 km/h, vibrations start to creep in.

Comparo

**Chassis and Brakes** 

The Pulsar 200 NS uses a Perimeter frame, about which you can read here. Basically, it provides 50-50 weight distribution and a single piece design. The bike sits a little bit high at 805 mm and has a ground clearance of 170 mm. The front forks are 37 mm in size and offer decent ride quality, the rear suspension is 7-step adjustable for preload and is softly sprung. The raised clip-on provide a comfortable yet aggressive riding position. All these features make the Pulsar 200 NS an aggressive Naked bike. It makes sense to equip the bike with ABS but unfortunately, it is only a Single Channel Unit.

Yamaha FZ-25 relies on the tried and tested Diamond frame, you can read in detail about it here. The frame uses the engine as a stressed engine, which explains the vibrations we talked about earlier. The seat height of the bike is an accessible 795 mm and the ground clearance is decent but a bit low at 160 mm. The seating is upright and comfortable, the handlebar is a straight one and gives you a wide grip to lean on or stay straight. The bike has good brakes and the stock rubber is also top notch but there is no option for ABS. Overall the bike rides like a conventional commuter with enough power to play around.



# **Verdict**

Pulsar NS 200 despite of unwanted vibrations that tend to rise at higher Rpm and especially when the bike gets old is priced almost 30K lesser than its Japanese compatriot. On the other hand Yamaha really tried to put together a good package but their habit of skipping equipment like ABS to regulate cost, makes the Pulsar 200 NS, a winner here.

# Electrical components

The 200 NS, even in this day and age uses a halogen headlamp. The rear is an LED unit and the switches are backlit, just like any other Pulsar. The instrument cluster is part-digital part-analogue and is easily readable under any weather condition.

The FZ uses an all-digital instrument console but displays non-conventional information like real-time mileage. Not all of it is displayed at once in the cluster but it can be viewed by pressing a button. A headlamp is an LED Unit and so is the taillight.



# What Makes Pulsar 200 NS

# Best Bike In 200 cc Segment?

# The Triple Spark

When Bajaj acquired a huge stake in KTM, They got access to the company's super successful 199 cc liquid cooled engine. The engine used a single-spark plug and Bajaj already had been using DTS-I tech in their street series motorcycles. The engine from Duke although returned good power and torque figures, offered less mileage and upon realizing that a 200 CC motorcycle with 25 km/l mileage is not feasible, they decided to rework on it. Already the DTS-I tech had done wonders in extracting a mileage figure of around 40 km/l from the Pulsar 220, so Bajaj stepped up a level to include 3-spark plugs.

The increase in spark plugs was also due to the 4-Valve nature of the engine. Since more air and fuel mixture was able to get in, more spark plugs can be used to burn every last drop of them efficiently. The result of this design was immediately apparent, as not only the mileage figure improved but the emission of Carbon mono-oxide and Hydrocarbon reduced to a significant amount, in both loaded and unloaded conditions. The engine now made 18.3 NM of torque @ 8000 RPM and 23.17 BHP @ 9500 RPM. The engine was also not electronically limited so speeds of around 140 km/h are achievable today.

# The Mass centralization

What many people do not talk about is the stable nature of the bike. It is the most planted and stable bike on the highway, in its segment. The underbelly exhaust and pressed Perimeter Frame does the job of keeping the bike flex free and acting as a single unit which can respond to stress. This is one of the reasons why it's also a great stunt bike. The wheelbase is indeed long but The distance between the rear swing arm and the rider seat is less, combine it with peppy power delivery and peppy clutch, and you can easily steer from the rear wheel. The Underbelly Exhaust also gives you similar lean angles from both the sides, so you can forget about exhaust scraping forever.

# **Practicality**

Indians, We, are pragmatic people. We don't value any feature unless it is not able to blend in with practicality and the Pulsar 200 NS does just that. It makes sport-riding an everyday business. The bike offers monoshock for better control in corners and increased life of the suspension. The bike sits tall with an 805 mm seat height to make room for 170 mm ground clearance for any bumps and rock that you may encounter. The plastic parts are placed high and stay safe during a crash. Already the bike offers around 40 km/l and the engine stays cool during long highway runs. All of these bits add to a big picture which describes how practical Pulsar 200 NS really is.

Pulsar 200 NS, with its engine alone, is the most value for money bike in the 200 cc segment, add to it all the other features and it instantly becomes a cult phenomenon. This proves again that no other manufacturer except Bajaj knows, how to put together a perfect package.

The bike now comes with a Single Channel ABS at an ex-showroom price of Rs 1.11 lakh.



The bike launched by Bajaj in 2012 was way ahead of its time. So much so that the company decided to stop its production and relaunch it in 2017. I am talking about the Pulsar 200 NS. It is the most successful concept to have ever come out of Bajaj's R&D. The bike sits on a perimeter platform which has extensively been used in Pulsar RS 200, AS 200, NS 160, AS 150 (NS = Naked sport, AS = Adventure sport, RS = Race sport) and Dominar 400. Despite branching off to so many genres, the NS 200 still remains the most preferred bike in the sports series of Bajaj motorcycles and rightly so, Let me explain why.



**Used Motorcycles Which Make Great** 

# STUNT BIKE

# 1: TVS Apache RTR 180 and 160



The RTR DNA of both of these bikes grants them instantaneous torque delivery, which translates to big fat wheelies whenever you want. The petal disc brakes do the same amazing job in the braking department both the feedback and bite, from them are perfect. Couple this with the light kerb weight of just 137 kg and you've got yourself an agile motorcycle. The seat height of the bike is on the shorter side to accommodate short and average height riders and the handle are clipons for the aggressive riding position.

Apaches have been around for a long time, as a result, their spare parts are easily available and almost every mechanic knows its engine, inside-out. You can buy a second hand TVS Apache RTR 160 for Rs 30,000.

# 2: Bajaj Pulsar 180



I don't want to recommend Pulsar 150 because of its low power and torque. I don't want to suggest Pulsar 220 either because of its big front fairing. There was a Pulsar 220 street available for a brief moment of time some 10 years back and it'd have been perfect. Since we no longer have 220S in production, we can choose the next best thing Pulsar 180.

The Pulsar 180 is everything that Pulsar 150 isn't. It has better riding position, better seats, a powerful engine and chunky tyres. The handlebar feels a bit heavy to turn but it keeps the front end stable during a highway run and a stoppie. The low down torque on Pulsar 180 is good and is easily available at 4000 RPM. Being a Pulsar, it is the most expendable performance motorcycle in our country. You can get a second hand Pulsar 180 at around Rs 35,000 or less.

# 3: KTM Duke 200

The motorcycle from Austria is the perfect hooligan. Duke 200 is the right balance between power and stability. The straight handlebar allows for quick maneuver while the instantaneous torque facilitates loads of power wheelies. There is no ABS present on this bike so you can easily lock the front or the rear wheel. The bike features a trellis frame, upside down forks and a big rear sprocket for improved stability and power delivery.

Duke 200 was launched in India in 2012 and plenty of them have been broken and replaced over the years. A lot of frame sliders and hand brakes are available for easy and cheap customization. One can find Duke 200 at a price of Rs 50,000 – 60,000.



# 4: Bajaj Pulsar 200 NS

The bike which kick-started the sports series for Bajaj is a surprisingly good stunt bike. The Pulsar 200 NS offers great mass centralization and easy flickability. The exhaust is placed under the belly of the bike, this provides similar lean angles on both the sides. Stunts like "Christ", are easy to perform on the 200 NS due to its amazing stability. The power provided by the 199 CC triple spark engine is a healthy 23.5 BHP, it is enough for several different types of wheelies and burnouts. You can easily find a Pulsar 200 NS at around Rs 50,000



June 2018

June 20

After weeks of teasing, Suzuki has unveiled the ABS Version of their most successful Gixxer motorcycle. The Gixxer ABS will now be the top end model for the naked Gixxer series and will retail at an Ex-showroom price of Rs 87250.

The latest Gixxer ABS variant comes fitted with a Single Channel ABS unit with front wheel speed sensor to detect wheel speed for better stability and controlled braking force. The Gixxer continues with same Lightweight Engine, the Gixxer ABS has an all-aluminum 4-stroke single cylinder 154.9cc BS-IV engine that produces 14.8ps of power @8000rpm and 14Nm of torque @6000rpm. Powered by cutting-edge SEP Technology-for powerful performance without compromising on fuel efficiency the Gixxer furthermore comes equipped with Suzuki Jet cooling system (SJCS) to ensure better cooling of engine

The new Suzuki Gixxer

ABS will be available in three colours anamely Metallic Triton Blue/Glass Sparkle

Black, Candy Sonoma



# Suzuki Gixxer ABS 2018 Version Launched In India

Commenting on the occasion, Sajeev Rajasekharan, EVP, Sales and Marketing, SMIPL, said,

Ever since its launch, the Gixxer has emerged as a benchmark for the segment, managing to 'Stay Ahead of the Pack' in terms of technology and performance. The ABS option allows us to improve on an already exciting riding experience for our Gixxer customers. The Gixxer series is an important cog of our India product-strategy. With enhancements like ABS, we will continue to improve on the value-proposition we offer to our customers.



within each other. Dani Pedrosa passed Lorenzo to take P5, making Lorenzo finish outside the top 5.

Marc Marquez won at the end by 2.3 seconds from Danilo Petrucci followed by Valentino Rossi who completed the podium. Jack Miller finished 6.3 seconds behind Rossi, followed by Dani Pedrosa and Jorge Lorenzo. Maverick Viñales finished the French GP at P7 after battling with Cal Crutchlow at P8. The top 10 is completed by Aleix Espargaro and Alex Rins. Rookies Hafizh Syahrin and Franco Morbidelli finished in points at P12 and P13 respectively.



Marc Marquez now leads the Championship by a whopping 36 points Maverick Viñales. Johann Zarco is in third place followed by Valentino Rossi at fourth with 56 points. The paddock now moves to Misano in Italy for the Italian GP in two weeks time. It's going to be one interesting weekend in the land of pizzas and pastas. Stay tuned to BikesMedia for immediate updates and insights on the 2018 MotoGP World Championship. Ciao.



# **Engine and Performance**

KTM Duke 125 uses a 124.7 cc liquid cooled single cylinder fuel injected engine. The cylinder head has the same design as the KTM Duke 1290 R, as it has 4-valves over the block which are controlled by dual cams and carbon-coated cam followers for engine longevity. Power produced by the engine is 14.75 BHP @ 9500 RPM and 11.80 NM @ 8000 RPM. The whole setup is paired to a 6-speed super slick gearbox. The responsive low-down torque character is very well maintained by the small engine, it's only in the top end when it starts running out of steam.



**Electrical and rider aids** 

Duke 125 offers a 5" colour TFT screen which has a ton of information. The interface allows you to connect your smartphone to the onboard computer, so you can pick up calls without leaving your hands from the throttle. A joystick on the handlebar has also been provided for easy navigation through it. The bike offers ABS and even allows you to put it into the "Super-Moto" mode by turning off the rear brake actuator. This allows you to slide the rear end of your bike and perform drift in the corners.



KTM Duke 125 is a great bike, but it is too great for its own good. The kind of design, chassis, and components it offers far exceeds the power it plays around with. It's like the video game character Kratos at the beginning of every God of War game. He is mighty and capable of commendable feats but he is on a very low level. The expected price of KTM Duke 125, if launched in India would be around Rs 1.5 Lakh.

# **Design and Chassis**

Ktm Duke 125 has the best chassis in its segment. The bike uses a steel trellis frame which is just as strong as it's elder sibling the Duke 390. It also has the same steering angle, wheelbase, seat height, Fuel tank, ground clearance and suspension, as the 390. At the front, we have non-adjustable WP USD suspension and at the rear, we have a 5-step adjustable monoshock. The things different in this model are the weight (137 kg for Duke 125) and the Front disc brake (300 mm for Duke 125). The motorcycle stands on a 110 mm and a 150 mm tyre, at the front and



# **Understanding The Utility And Working Of Choke** In Two Wheelers

in your lifetime you must have pulled the choke of your two wheeler when it denies to start, the same also comes to your rescue when you either start your bike/scooter after considerable longtime or even just for the first time in the morning specially in winter season.



What is this Choke all about? How it comes to your rescue? And why if left engaged for a long time by mistake, can gulp all of your petrol in no time? All these and many more questions come to our mind when we talk about "Choke". A magical pull or push lever featured on all carbureted two wheelers can easily be located either directly mounted on the carburetor or placed on the handlebar or on the dash panel of scooters

# What is a Choke?

A choke in a carbureted internal combustion engine (be it a 2-stroke or 4-stroke engine) is a "Valve" present in the carburetor, normally the valve is a butterfly type which on pulling can block (choke) the fresh air supply to the carburetor. The choke can be pulled directly if it is placed right on the carburetor and can be pulled via cable if the pull plug is featured elsewhere on the two wheeler.

# What is the use of Choke?

The choke is normally used when the engine is failed to crank after couple of tries, the failure could be caused by 'n' number of reasons. It is also recommended by many manufacturers that one should use the choke to start the bike/scooter when it is getting started for the first time in a day (normally in morning time). In a nutshell the choke comes handy when the engine gives you starting trouble, especially when it is at a cold state.

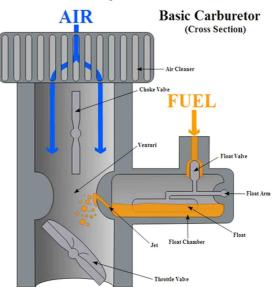
#### If we talk technical here, there are more than one reason behind the trouble while cold starting the engine:

- 1. The system becomes dry, the walls of the combustion chamber also become dry as the fuel gets evaporated in due course of time and hence the combustion doesn't get any help from the overall atmosphere.
- 2. The petrol is not used in its original state i.e liquid for combustion, it is actually turned into vaporized form while passing through very fine jet holes before mixing with air. In cold state the density of the petrol gets affected and the vapors turned into droplets which don't burn easily and hence give you starting trouble in cold sate.

How Choke works? Now, when we all know that in what circumstances we need to apply choke, it is important to know how actually choke works. As we've already explained above, the choke

is a valve situated right at the body of the carburetor. It is placed in between the air intake from the air filter and the Venturi present in the carburetor. True to its name the "Choke" actually chokes the fresh air intake from the air filter to the carb. The shape of the choke valve is normally butterfly and when it is pulled, it rotates to block the passage of the air from both the

sides with both of its wings



Now what happens, in the absence of the air stream there creates a partial vacuum inside the carburetor which in turn draws extra fuel from the jet into the intake manifold. This is the reason you've always been told not to give acceleration (or twist the throttle) while the choke is pulled, because there is already extra fuel being drawn into the intake manifold due to the choke. If you further turn the throttle on, the system will be flooded with the petrol and it would cost you what is best known as "Over" state.

The extra atomized (vaporized) fuel drawn because of choke provides extra chance to the combustion system to get the engine started, as the every extra vaporized fuel particle adds extra chance to the system to get started. When the system is flooded with the pure atomized fuel, no matter if the particles are turned into droplets due to the cold state, there is an increased chance of a single particle to catch fire if squirted near to the sparkplug or at the right time, rest will be taken care by the Chain Reaction and the engine gets started lightning fast.

# Benefit of Choke:

You might be thinking that if the sole purpose of the choke is to draw that extra fuel to the system, which can also be done by opening the throttle, then why we use choke? The answer to this question is simple, when we open the throttle, what we are doing is to draw a mixture of air and fuel both, the harder we open the throttle the more amount of air/fuel mixture we draw from the carburetor. On the other hand when we pull the choke, we only draw more fuel as the choke restricts the air supply.

Now you may also think that what is the use of additional system (choke) when we can draw extra fuel of course with extra air by simply opening the throttle? Most definitely, the ideal mixture of air and fuel is what required for normal functioning of the engine. But here our concern is not the normal functioning of the engine neither we care about the momentary mileage; all we care is about the cranking of the engine (to start the engine). And for this we require more amount of fuel and therefore by applying the choke we restrict the air and compensate even that volume with the pure fuel.

Of course there is always minimum amount of air (oxygen) available in the cylinder to burn the extra rich fuel mixture. Here if you ever noticed the engine gets fired almost instantly but abruptly when the choke is applied. This is just because of the same reason given above that there is plenty of fuel flushed into the intake manifold and that fuel burns erratically but almost instantly due to limited air supply. Once the engine reaches at a particular temperature and we push down the choke the normal procedure takes on and the whole system returns back to the normal functioning.

# Ducati Advanced Rider Assistance System (ARAS)

The

becoming unpredictable. It's

not just the constant worry of

future, which disturbs my

sleep nowadays, but also the

upcoming intervention of

robots in our everyday lives.

Soon we will be facing the

dawn of automation era, our

computers, our cars, our

toasters will have a brain of

their own which will judge

what is right for us. For ev-

erything in the world, I am

ready to have an automation,

because the fewer decisions I

need to make for myself, the

better. Still, there are some

things which will never

become automated, our be-

loved motorcycles are one of

those things. They will

become safer and environ-

mentally friendly over time

but not "boring" because

there will always be some

amount of skill required to

All you need to know

Ducati has taken a step in the same direction by pledging to offer world's first "Advanced Rider Assistance System" by 2020 for motorcycles. In cars, such a system is already a reality and is known as the same but with "Driver" instead of "Rider". What is this system all about? The answer is that nobody knows exactly what it's going to be. Although, judging by the safety features on the above-mentioned cars, we can figure out what the "Rider" version will bring to the table.

## **Cross Traffic Monitor:**

In cars, this system functions as an alarm when you're trying to reverse your vehicle from the driveway onto the main road. Since Motorcycles don't have a reverse gear (generally) so this feature is pretty much useless for them

## City Brake Active System:

Many times riders fall off of their motorcycles in bumper to bumper traffic due to sudden braking from the front vehicle. In such a scenario, the above-mentioned system is useful, not only can it protect you from accidentally hitting your brakes too hard and losing balance but also in those cases when you're looking somewhere else and suddenly realize that there is a truck standing in front of you.

# Traffic sign recognition:

It's a sign reading function which can read road signs like "speed limit" "diversion ahead" "no speed limit" etc. It will save you from getting a traffic violation ticket and let you know of any curves, bends, or construction up ahead if you forgot to read it yourself.

#### Forward collision warning:

It is very important to maintain the distance between your bike and the vehicle in front, especially when you're on the highway. Literally, every truck in India is printed with a label that says "KEEP DISTANCE". So, this feature will do that for you by alarming you everytime you get too close to the back of a vehicle.

# Lane departure warning and Blind spot warning:

It is by far the most useful function on this platform. It will scan the road ahead and will inform you if it's safe to shift lanes or not. Even while merging on a highway, the sensor will let you know if there's a vehicle coming from the other side. The blind spot, while shifting lanes or taking an overtake, is quite easily the major cause of accidents in India.



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ride them.

Recently Pulsar NS 200 "Adventure variant" was unveiled in Turkey. The bike had panniers rack, a headlight cage and few external mods here and there but no mechanical upgrades. This fancy dress is played by not just one, but several manufacturers like Honda and BMW, who sell their naked bikes disguised as adventure tourer, just so they could save a few bucks. Honda showcased the adventure model of X-blade, which is just a normal X-blade with lots of plastic attached to it. Same is for BMW G310 S, which is just a G310 R playing dress up. So, today we are going to share with you guys, all the essential features which an adventure bike should possess.

# Things To Look For In An Adventure Motorcycle

## 1: Long travel Suspension

This goes without saying, as you're going to be traveling in places with no roads, you need a big and long suspension. A suspension with a long fork and a long travel is known as a long travel suspension. These are the most important components of an adventure motorcycle. Ducati's Desert Sled has a unique long travel suspension with an extended fork limit, that increases the travel of motorcycle's suspension. Without such a component, the bike will not survive; all the jumping and falling



# 2: Engine skid plate and a strong leg guard

Your bike is going to take a lot of

beating in the woods, so it's necessary

that it has the right type of armour.

With armour I mean, engine skid plate. Engine breakage is not unheard of in adventure riding and one must be prepared for it. If your bike doesn't have a skid plate, then all the debris and terrains will literally break your engine and when vou won't be busy riding over mountains, then you will be in falling off from your bike. A strong leg guard is important too if you want your legs to

survive a trip to the

jungle



## 3: High ground clearance

The skid plate or bash plate is the second line of defense for your engine's protection. First is the ground clearance, which must be high, higher than any of you were during Holi. A height upwards of 180 mm from the ground, is average by adventure bikes standard. This is one of the reasons why these bikes are so tall. Riders of even 6ft height find themselves tiptoeing on an adventure spec KTM Duke. This feature is not only required for engine's protection but also to easily pass over any terrain along the journey.

#### 4: Spoke wheels

Not just to render the bike a classic look but to absorb the tremendous amount of force, of a 200kg motorcycle jumping from a height of 5 feet. Alloy wheels are rigid & stiff in nature, whereas spoke wheels are strong and flexible. This makes their use ideal in off-road conditions.



#### 5: A punchy Engine

If you're stuck on a trail full of loose mud, then all the horsepower in the world won't help you get out of that situation. That's why you need torque, lots of it; but it should be available low down the rev range. If all the twisting force is available at the far end of the monochromatic rainbow (rev-range), then you'll be busy in twisting your wrist for a long time and would still find yourself stuck. Low down torque will prevent wheel spin and will get out in a jiffy.



The list is not over yet because there are things like a robust body, straight handlebars, short mirrors and lots of other stuff, but with more and more manufacturers entering this segment, there are bound to be some broken rules. Still, the rules discussed above are the basics of an adventure offroader. Without these you'll not just break your bike, you might end up breaking yourself.

Keep in mind these points when you're out purchasing your new adventure motorcycle and stay tuned to BikesMedia for more such cool stuff.

