

2021 1/2 OFF-ROAD TEST

BETA 250RR RACE EDITION

Stick a fork in it!



➤ There is no doubt that the two-stroke is riding a wave of popularity inspired by a rise in off-road passion, new technology and the status of extreme or hard enduro racing. There are several players here, notably the Austrian TPI machines—KTM, Husqvarna, GasGas—Sherco, TM and Beta.

We didn't get a chance to test too many Beta motorcycles in 2021. The factory was hit hard and early by the COVID-19 epidemic, and there were no units for testing. Each year, though, Beta releases 1/2-year models called "Race Editions," and we were able to score a 250RR Race Edition for testing. This version differs from the standard version in a number of ways.

Let's backtrack a bit here. For 2020, the machines all featured the new chassis—frame, swingarm, gas tank, seat and bodywork. The engine is counter-balanced, and for 2021 they received new Italian Red coloring, a stronger rear subframe and improved electronics. The Race Editions are not oil-injected (they use premix to save weight), and they come with the Beta-branded KYB AOS closed-cartridge fork. Out back, the Sachs shock has new valving and is longer, which works well with the new chassis. The Race Editions come adorned with additional trimmings over the standard models, including Billet footpegs, hand shields, a dual-material rear sprocket and special graphics.

Ryan Koch finding the perfect traction of granite while testing the ever-so-competent Beta 250RR Race Edition.



Left: The lithium battery is housed under the seat, which has a push-button to remove the item. It's excellent.
Middle: A D.I.D O-ring chain runs on a high-end dual-compound sprocket. The tires are Metzeler 6 Days units that

did not get great reviews from our testers.
Right: The 250RR comes with a straight-through muffler, but for our needs, a spark arrestor is almost a necessity. The FMF 2.1 Turbine Core is excellent.

INSIDE LOOKING OUT

The powerplant is a 249cc engine that is premix only and uses a 36mm Keihin PWK carburetor. It utilizes a BPV (Beta Progressive Valve) exhaust valve and has a six-speed, wide-ratio gearbox. Of note, Beta offers the option to add oil injection if you wish. The clutch is a new six-spring unit and is hydraulically actuated via a Brembo master cylinder. A plated expansion chamber is built by Arrow, and the exhaust exits through a straight-through silencer (non-spark-arrested). It's electric start only (though you can purchase a backup kickstarter) and uses a light-weight high-end lithium battery.

The big news with the Race Edition is the KYB fork. It is Beta-branded, is

a closed-cartridge unit (separates air and oil) and targets a more controlled, polished appetite for ugly off-road. It has special internal valving developed by the Beta engineers specifically for off-road conditions, and internal anodized components ensure reduced friction and a confidence-inspiring ride.

Beta continues with the Sachs rear damper, which is new, longer and fit with new valving to work with the KYB fork. It's an aluminum unit and has adjustable rebound with high/low compression adjustability. The rear damper can be removed without removing the subframe (not quickly but doable). The Beta uses CNC-machined triple clamps offering three different handlebar positions and comes with a Reikon bulge bar, Excel rims and Metzeler 6 Days

Extreme tires. Both front and rear brakes are Nissin. The gas tank holds 2.55 gallons. The air filter can be accessed via a removable cover. The chain is a D.I.D O-ring unit, and it comes equipped with a smallish plastic skid plate.

GETTING DOWN TO THE NITTY-GRITTY

On the trail, the Beta 250RR Race Edition feels very smooth and tame when it needs to be. The motor lugs and pulls down to 0 rpm while resisting stalling quite nicely. It has a very broad and wide powerband with plenty of torque and enough flywheel to pull riders up steep and nasty terrain. The smaller bore motor is counterbalanced and offers less vibration than its bigger brother, the 300RR. This engine loves

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Oddly enough, the 250RR feels pounds lighter than the 300, though they're nearly identical. The Race Edition is fit with a Beta-branded KYB fork, and it's a superb damper.



to be short-shifted and will also snap and rev out quicker and hotter than the 300. The clutch pull is very smooth and predictable and never faded under pressure. Once you click it into first gear, you're greeted with a cog that likes to crawl. First, second and third are evenly spaced with no large gaps, while fourth through sixth open up quite nicely with no significant gaps. Both top gears are good for faster sections, desert and speedier roads. It's easy to maintain a constant rpm while shifting through the gearbox without any large gaps. The power is in no way violent, but most definitely has a good snarl from the upper midrange and into peak revs.

The 250RR uses a dual-map ignition with Sunshine and Rain modes. For once this is a bike where we can definitely feel a difference when switching maps. The Sunshine mode offers great bottom and midrange power, but with the flick of the clutch the bike will come to life and yank with serious enthusiasm. In the Rain mode, the bottom and midrange are retained, but the top-end power is much less aggressive and more reluctant to break traction. It's a very nice feature for constantly changing conditions.

The KYB fork is a head-turner on the Race Edition models due to the popularity the brand has gained for years of success on Yamaha's machines. We heard complaints about the 2020 Race Edition models having overly stiff valving, but we can tell you that there is no trace of that for 2021. This is by far one of the very best production forks we have ridden off-road. It works very well in slow-speed technical riding while retaining enough holdup to be pushed at high speeds in the fast whoops and trail hack. We felt no need to adjust one clicker on the forks for anything we threw at it. Rocks, roots and high-speed conditions are all within the fork's comfort zone. Out back the Sachs shock worked as impressively as the fork, offering a good, balanced feel with a hunger for hacky terrain. The shock could be pushed very fast in the whoops while also soaking up the trail litter and planted rock fields with no harsh feedback blowing up into the rider.

High marks go to the narrow and nimble layout on the machine, making it superb to maneuver around on in technical terrain. The bike can change directions in a hurry, thanks to its light,



Top: All of the Beta two-strokes are carbureted, the 250RR uses a 36mm Keihin PWK. It comes with special graphics, a seat cover and, of course, the KYB fork.
Bottom: The pipe is plated, the clutch is smooth and is managed up top via a Brembo master cylinder.

claimed 228-pound weight with no fuel. Oddly enough, it feels quite a bit lighter than the 300, which it is not. Power and inertia always enhance the feel of weight. At times it feels equivalent to riding a mountain bike in the woods with the quick steering and feathery feel.

While the Beta doesn't come equipped with a cooling fan, the bike never boiled on us even under some slow-speed abuse. We love the fact that there are no tools required to change an air filter or remove the seat. Praise to the stealthy exhaust tone, though we did fit on an FMF Turbine Core 2.1 because we need a spark arrestor for a good portion of our riding. Fuel economy was decent. We got anywhere from 15 to 25 mpg, depending on how much we tortured the throttle. We love that the bike comes with an O-ring chain and a skid plate standard. Also, handguards are a welcome addition to a stock machine. The pegs are ultra trick and offer a wide platform for added foot comfort. We're stoked with how well the bike runs out of the box; no jetting was required for our elevation ranging from 3000 feet to 6000 feet. The clutch performed excellent with zero fade and offered a smooth pull and great modulation. The Nissin brakes were just as impressive, with a strong and progres-



sive feel with great stopping power on the steepest of downhills. Good marks go to the digital computer display. It features a clock, speedometer, hour meter, odometer, the bike's total mileage, and even keeps track of the voltage to ensure the machine is properly charging. We're not a huge fan of the Metzeler 6 Days Extreme tires. They worked well on hard-packed terrain but lacked compliance in bony, root-infested terrain. The headlight works well enough to get you home, but don't plan on any serious night riding at high speeds.

Overall, the Beta 250RR Race Edition is one of the most well-round-

ed and downright fun machines of the last few years. It can provide a platform for most all riders of any skill level looking for a simple and easy-to-work-on machine that leaves you with a big smile. It does lack the really low appetite of a 300, but with 300cc machines being hard to find, a hard-core off-roader will benefit from a lighter feel, less vibration and a strong mid-to-top powerband. Beta slaps on a nice six-month warranty. The bike sells for \$9399. You get a strong dealer network, and through Build Your Own Beta, there are over 400 accessory options available.

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