

RR RACING MY 2024

Double the fun

Is it possible to improve the frame, suspension and performance of a World Championship-winning motorcycle? It's not easy when the bikes in question are those of Steve Holcombe or Brad Freeman, but Betamotor's technicians like a challenge, and so two major innovations have been added to the Racing 2024 models, doubling the rideability, power and fun! Beta's flagship racing bike, the RR Racing 300 two-stroke, indeed features a new engine with dual spark plugs, with most of the other RR Racing range receiving a new frame (excluding the 125 and 200). But that's not all, because the 125 two-stroke is also receiving a completely redesigned engine. Rounding off the package are new graphics and high-level, race-ready components.

The RR Racing bikes represent the race-ready versions of the Enduro RR models and therefore differ from them with a series of modifications to the engine, suspension, frame and equipment, making them ideal for giving their best performance on the track. For Model Year 2024, the new features and innovations are undoubtedly high impact and consistent with the build philosophy of these models, offering everyone the ability to make the most of the available performance with minimal effort, so they can always give their best. Let's therefore take a look at all the new features and characteristics which set the models apart.

New Features

Engine - RR Racing 2Str 300

The engine of the multiple world championship-winning model of Brad Freeman is known in the offroad landscape for its torque and linear power delivery. Able to offer excellent progressive power throughout the range while providing top-end performance when needed. With the introduction of the **new cylinder head with dual spark plug**, these characteristics are further improved: the delivery is even more linear, and although the maximum power is increased, the vehicle's docility is clearly improved. This result has been achieved thanks to the two spark plugs, which provide numerous benefits:

- They offer improved distribution of the fuel ignition points in the combustion chamber, providing less fuel consumption, making the system more efficient and achieving a significantly lower residue level thanks to the greater carburation stability at all engine speeds. This translates into smoother delivery.
- The engine's range of use is further extended, as both greater torque and more power are available.



 The two spark plugs are managed with a completely separate electrical system. This means that, if one of the spark plugs should foul out, the engine will still be able to run, although with less efficiency, allowing the race or off-road session to be completed.

Engine - RR Racing 2Str 125

As it has repeatedly demonstrated, Beta believes in the potential of young people, and the manufacturer has once again chosen to highlight this with the Racing Model Year 2024 bikes, offering a new engine for the small 125s. The purpose of this intervention was to increase the power delivered by the 125 two-stroke along the entire delivery curve, intensifying the maximum peak horsepower available. This result has been made possible by a totally new cylinder, with all-new porting, and a new exhaust valve system. The power valve control has been modified, as well as the spring and the valve opening regulation calibration, in order to make the engine more reactive, powerful and full-blooded, increasing the explosiveness of the absolute performance. The new 125cc engine therefore has a significantly greater range of use than in the past, with power gains at high speeds without losing low-end torque.

Suspension

In terms of the suspension, adoption of Kayaba fork and single shock is standard equipment on all RR Race Edition models, while the main innovation involves the new frame:

- Frame: all new RR Racing My 2024 models, (excluding the 125 and 200), feature a completely new frame. The steering tube spars have a larger section than in the past (1 cm), introduced in order to provide greater rigidity to the bike to reduce the overall flex. In terms of the ride, this translates into greater precision on entry into and during turns, where the greater rigidity allows the bike's trail-holding to be improved with a truer and more direct response. This main modification, already successfully used in competition by the Official Team, brings with it a series of adaptations in the supports, engine mounts and so on, introduced to support the new frame characteristics. In addition to the above modifications, the footpeg mounts and the rear brake cylinder mount have also been modified. More specifically, the footpeg mounts are now narrower at the bottom, to prevent the possibility of ground contact when riding in deep ruts. The brake cylinder mount, on the other hand, has been redesigned to house the new Nissin brake cylinder.
- Nissin: the new frame is now able to house a new, higher-performance Nissin brake cylinder. This component represents an advance on the previous model and is distinguished, as well as in its outer construction, by its greater braking power combined with improved ability to modulate it (excluding the 125 and 200).





The package of new features introduced on the RR Racing My 2024 is rounded off by the high-level equipment and the precise characteristics which set these models apart from the RR.

Traction Control - 4Str Range

The Traction Control, which can be disabled at any moment, is now a fundamental feature of the larger engine sizes and is therefore found on the Model Year 2024 too. Management of this system is via the usual button on the control panel between the steering tube and the fuel tank. As both the TC function and engine map selection function are controlled from this panel, it has two control buttons and two separate indicator LEDs for the two functions.

Oil mix - Two-Stroke Range

For the models of the **RR Racing 2Str MY 2024** family, Beta has decided to stick with its choice of doing away with an automatic mixer, so that its Racing bikes continue to set benchmarks for lightness and, as a result, agility. The **RR Racing two-stroke** bikes must therefore be fueled with oil/petrol pre-mix – a characteristic accentuating the thoroughbred racing nature of this version. These bikes can still be fitted with an aftermarket oil mixer, available as an accessory from the Beta Factory Parts catalogue.

Suspension – Entire Range

- 48 mm Kayaba (KYB) AOS closed cartridge fork: Anodised internal parts and the treatments
 administered to the materials minimise sliding friction, while adjustable compression and
 rebound damping let each rider find the perfect customisation of the setting. Betamotor's
 engineers have recalibrated the component to make it work optimally with the new frame
 characteristics.
- Kayaba (KYB) C46 Rear Shock: The KYB shock can be seen as a gold standard in the racing scene
 in terms of its ability to absorb the roughness of the terrain, the level of traction transferred to
 the vehicle and the consistency of performance even under particularly heavy use, and its
 hydraulic setting can be fully customised by adjusting the external compression (both high and
 low speed) and rebound settings.

Racing Components - Entire Range

- Quick release front axle: immediately recognisable by the red anodised alloy release lever, this component is crucial for saving precious seconds in a race when you need to change a tyre.
- Reinforced handguards: the new handguards, designed and manufactured in-house by Betamotor, feature a two-component material mould, in red and blue, which not only give the





bike a racing look but also makes them especially hard-wearing in even the roughest off-road use.

- **Ergal alloy footpegs**: to ensure maximum control at all times and ensure no loss of contact with the bike, the RR Racing models are fitted with black ergal racing footpegs with steel pins, featuring a large contact surface area.
- Rear sprocket with anodised aluminium core and steel toothing by ZF SPROCKETS: top-class performance, lightness and strength the perfect mix of all the attributes any racing component must have.
- **Dedicated red and blue racing seat:** with a non-slip top cover and document holder pocket for unparalleled grip, comfort and practicality.
- Anodised black shift lever and rear brake pedal.
- Gearbox oil filler cap, engine oil filler cap and oil filter cap anodised red aluminium.
- Chain tensioners in red ergal alloy.
- New Racing graphics and red and blue wheel decals.

Availability

October.