

Exhibition of pin-slide brake calipers for off-road racing vehicles for demonstration for experiencing brake rigidity

- We will exhibit pin-slide-type front brake calipers adopted on off-road racing vehicles on the market and new brake calipers to be introduced in future races for a demonstration for experiencing them.
- The state of brake calipers heated by continuous braking in a race will be simulated.



At EICMA 2024, we will exhibit ever-evolving pin-slide-type front brake calipers for off-road racing vehicles for a demonstration for experiencing them. We will simulate high temperature states of the 2024 and 2025 models on the market caused by continuous braking to let visitors experience the difference in the amount of change in the front brake lever. They can experience a new level of brake performance of the newly developed brakes for races, which ensure high rigidity while achieving a significant reduction of weight.

Various brake performance factors are required of off-road racing vehicles. We have been developing brake calipers to be used in combination with large-diameter tires and spoke wheels in pursuit of high braking force and controllability, as well as the reduction of changes in lever rigidity at high temperatures while adopting lightweight and compact pin sliding type brake calipers in order to minimize the impact on handling.

At EICMA 2024, the latest 2025 model and new pin-slide-type front brake calipers for racing will be exhibited together to let visitors experience the evolution of our brake calipers.

Our front brake calipers for off-road racing vehicles have been developed in pursuit of outstanding braking force and controllability, and have been highly acclaimed. The front brake calipers of the latest 2025 model have further evolved features based on feedback from riders and teams competing in top-level championship series, such as the World Championships. We could evolve these features via thorough thermal countermeasures. The technology and knowledge cultivated in on-road races, where the temperature conditions are harsh for brake calipers, were utilized. The shape of the seal groove was reviewed, and the material of the piston was changed to one with an outstanding thermal capacity. These changes can provide high-level and stable brake performance under all conditions, and have greatly contributed to improving the performance of off-road racing vehicles.

We will also exhibit a new front brake caliper for races together with the above-mentioned brake calipers. The most important feature is its lightweight body, with the weight reduced by approximately 15%. This front brake caliper realizes the highest level of braking force, controllability, and fewer changes in lever rigidity at high temperatures ever achieved while seeking lightness.

*Information contained in this Technical Information is current as of November 5, 2024 but may be subject to change without prior notice.