

BMCRC Thunderbike 500 – Brake System Compliance

Effective: 2026 Season Onwards (Until Further Notice)

In the interest of sustainability and to ensure ongoing availability of safe and reliable braking components, the BMCRC Thunderbike 500 class will adopt the following regulations for braking systems from the 2026 season onwards.

With original OEM master cylinders and calipers becoming increasingly difficult to source in acceptable condition, these updates are designed to maintain safety, performance parity, and class ethos while providing riders with viable replacement options.

1. Front Master Cylinders

- **Permitted OEM Units:**
 - Original *Brembo* front master cylinder (1996–2003).



- Original *Nissin* front master cylinder (1994–1996).



- **NEW FOR 2026:**

The **OEM Honda Rebel Master Cylinder** (Part No. **45510-K87-A01**) is now permitted.

- This unit features an 11 mm piston, equivalent in performance to the original Nissin.
- It has a slightly different clamping diameter; however, when purchased through the series sponsor **SFParts**, a suitable clamping spacer for 22 mm handlebars is included (spacers may also be sourced elsewhere).



2. Front Brake Discs

- Original OEM front discs are permitted.
- Aftermarket floating discs (e.g., **PFM**, **MTX**, **Moto Master** etc.) are permitted, provided they are no larger diameter than the original **296mm**.

3. Rear Brake

- OEM rear discs and lightweight aftermarket discs are permitted.
- Rear master cylinder must remain **OEM original**.
- For drum brake models, the actuation rod may be replaced with a **stainless steel** or **aluminium** item.
- Thumb operated rear Brakes are NOT permitted.

4. Brake Lines and Components

- **Braided brake lines** are permitted.
- **Brake piston shims** and **aftermarket pistons** are permitted.
- **Brake pad choice** is open.

5. Front Calipers

- **Permitted OEM Calipers:**
 - Original *Nissin* front caliper (27 mm pistons, 1994–1996).



- Original *Brembo* front caliper (1996–2003).
- **NEW FOR 2026:**
BMCRG will now permit **any OEM Nissin twin-piston caliper**, provided the **piston diameter does not exceed 27 mm**, matching the specification of the original item.
 - This includes calipers with similar or identical bodies to the original design but fitted with smaller pistons.
 - Although smaller pistons may result in a minor performance disadvantage, such calipers are widely available and will now be considered **compliant**.

As an approved alternative, the following caliper is now permitted:

- **Nissin Caliper (Part No. 45250-MGZ-J01)**
- Available brand new (including pistons, bleed nipples, seals, and hanger) from **SFParts (Robert Carver)** at a price of approximately **£100.00** (as of 06/11/2025).



6. Technical Justification

To support riders and maintain reliability and safety across the grid, the use of the new Nissin front brake master cylinder and caliper has been approved.

This decision acknowledges the growing difficulty in sourcing original units in safe, serviceable condition due to age and wear.

The newly approved Nissin components closely replicate the performance of the original equipment, ensuring no competitive advantage and preserving the core Thunderbike 500 ethos. Furthermore, the new caliper utilises the **same brake pads** as the original Nissin design, maintaining consistency in pad options across competitors.

These measures ensure riders have access to affordable, reliable, and readily available braking solutions, without compromising safety or equality within the class.