



## 2025 CB500 Regulations

### Motorcycle Endurance Race Series

These regulations are CB500 MERS regs for 2025. Please take the time to read them. Failure to do so may end up in riders being excluded in post-race technical inspection.

These regulations have been written to make for level playing field. Please make sure your machine is eligible.

All machines competing in any 2025 MERS CB500 Races must comply with these regulations.

The regulations are additional to the ACU Standing Regulations as laid out in the ACU Handbook. All MERS Championships are for riders who possess a valid ACU or SACU. The regulations are as follows and are correct at the time of writing, but which are subject to any amendments made by the ACU or MERS which will be issued by means of a MERS Bulletin. Engine and frame numbers must not have been tampered with or deleted. New, unstamped components are admissible. Bikes without a frame number are acceptable providing they were originally supplied for racing. Motorcycles must be based upon bikes originally homologated for road use.

Anything that is not authorised and prescribed in this rule is strictly forbidden.

Everything that is not authorised and prescribed in these specifications must remain in standard form, excluding paintwork.

### **1.0 Eligible Machines**

Honda CB500 1993-2003 Drum & Disc brake Models (CBF model not eligible)

### **2.0 Fuel**

2.1 Only unleaded fuel, available from a roadside service station to current ACU regulations. E85 biofuel is also acceptable from roadside outlets.

### **3.0 Bodywork and Screen**

3.1 The appearance and dimensions must be as homologated.

3.2 Single seat units or seat covers may be fitted to facilitate the use of race numbers but must retain the original silhouette of the bike. Seat units specifically designed for racing are strongly recommended.

3.3 Any fairing is forbidden.

3.4 The seat may be altered or replaced but any replacement seat must retain the original seat profile.

3.5 Engine protector pads may be fitted but must be secured with lock wire or bolts (adhesive alone is not acceptable).

3.6 A front number plate/board must be fitted (Maximum W260mm H230mm) and no aerodynamic advantage should be gained. Front number boards designed specifically for racing are strongly recommended and are available from bodywork suppliers.

3.7 The top of the front number plate/board must be mounted so that the top of the plate/board is no higher than the top of the front master cylinder.

3.8 Radiator cowls/side panels must remain 'securely' fitted to the machine.

#### **4.0 Steering Damper**

4.1 A steering damper may not be added.

#### **5.0 Frame/Swingarm**

5.1 No alterations to the chassis/frame are allowed unless specified in these regulations.

5.2 Frame braising or strengthening is forbidden.

5.3 Additional frame bracing is forbidden.

5.4 The side stand lug may be removed for safety reasons (ground clearance).

5.5 The standard swingarm must be used and remain unaltered.

5.6 Unused lugs may be removed from the frame & swing arm, but the subframe must otherwise remain complete. (If damaged beyond repair a non-performance modification may be allowed with a weight penalty applied only if arranged directly with the Chief Technical Official)

#### **6.0 Suspension**

6.1 Front Forks must remain as homologated by the manufacturer.

6.2 Front Fork springs may be changed for aftermarket items available from Hyperpro, Hagon, Maxton, Ktech etc. no other modifications to the fork internals are permitted other than the spacers and or washers as fitted to any of the 3 original fork types.

6.3 Front Forks may be positioned in the yokes at any height.

6.4 Any quantity or type of fork oil may be used.

6.5 Rear Suspension Units must remain as homologated or direct replacement aftermarket items from Hagon, YSS, Hyperpro, Maxton, Bitubo etc. of the correct extended length. The adjustable damping version of the standard or other aftermarket shocks is also permitted.

Standard shocks that are modified outside of the above parameters are STRICTLY forbidden.

#### **7.0 Tyres**

7.1 Any treaded tyres can be used – Slicks are not permitted. You should plan for the tyres to last the duration of the race – usually 6 hours or you will need to factor in a tyre change during the race. Severely worn or damaged tyres (cord or wires exposed) during the race will not be allowed back out on circuit until changed. Tyres found to be severely worn or damaged after the race the team will be given a time penalty at the discretion of the Chief Technical Officer and Clerk of the course.

7.2 The cutting of extra tread grooves is forbidden.

7.3 Wheel balance weights may be discarded or added.

7.4 If declared a 'WET' race, rain tyres may be used.

## **8.0 Silencers and Exhaust Systems**

8.1 The silencers may be changed.

8.2 The exhaust may exit on either side of the machine, or under the seat unit. The noise output must always be within the 105db limit, including post-race controls.

8.3 The bore of the header pipes must not be greater than 38mm & must remain a constant diameter.

## **9.0 Spark Plugs**

9.1 Any make and type of spark plug may be used.

## **10.0 Oils and Fluids**

10.1 Any type of lubrication, brake or suspension fluid may be used.

## **11.0 Safety Wiring**

11.1 All drain plugs, external oil filters and bolts that enter any oil cavity must be safety wired. Engine protection covers must be safety wired.

## **12.0 Starter / Generators**

12.1 Must remain entirely as homologated. Starting devices and electrical generators must operate normally, i.e., the mechanical and electrical connections must be maintained. The generator must charge the battery as normal during the race and at post-race control with respect to current and voltage. The engine starting must operate normally at pre- and post-race scrutineering.

## **13.0 Air filters**

13.1 The entire air intake system must be as homologated & fully assembled in the correct manor, including air filter element.

13.2 Pattern air filters maybe used provided they are a direct replacement for the original item and offer no technical advantage. No cutting, shaping or other alterations to filters is permitted.

13.3 Performance air filters such as K & N Filters are not permitted.

## **14.0 Carburettors**

14.1 Must be the standard units as on the homologated model. A 5% tolerance will be allowed on the main jet size only from those stated.

14.2 Carburettor needles must remain as homologated only position may be modified.

## **15.0 Oil Pipes**

15.1 Oil lines containing positive pressure must be replaced with items of metal reinforced construction with swagged or threaded connectors.

## **16.0 Brakes**

16.1 The choice of brake pads is free

16.2 Brake callipers must remain standard.

16.3 On the Honda CB500 any combination of original equipment caliper and master cylinder may be used provided they are original Brembo or Nissin parts.

16.3 Brake hoses may be changed.

16.4 Original equipment master cylinders must be used.

16.5 Aftermarket master cylinders are not permitted.

16.6 Original discs, solid replacement items & floating type aftermarket discs, to the homologated sizes, may be used (this includes Wave type discs in the standard size).

16.7 Dust seals may be removed.

16.8 It is forbidden to add metallic shims between the pads and calliper in order to reduce the transfer of heat to the hydraulic fluid.

#### **17.0 Throttle**

17.1 Throttle control must be self-closing.

17.2 Quick action throttles, both complete systems and modifications to the original assembly are not permitted.

#### **18.0 Breathers**

18.1 All motorcycles must have a closed breather system. No direct atmospheric emission is permitted.

#### **19.0 Number Plates**

19.1 Must conform to ACU regulations.

19.2 Number plates must be fitted to the front and both sides of the machine. (See section 3.0 Bodywork)

19.3 All number plates will have a Yellow background with Black numbers.

#### **20.0 Kill Switch**

20.1 Motorcycles must be equipped with a functional ignition kill switch or button mounted on either the right- or left-hand side of the handlebars (within reach of the hand while on the hand grips) that is capable of killing the ignition to fully stop a running engine.

#### **21.0 Footrests / Foot Controls**

21.1 Original Honda footrests are allowed with riser plates to aid ground clearance.

22.2 On original footrests the rear pillion brackets must be removed.

21.3 On all makes and models race style rear sets may be fitted.

21.4 Standard or race shift linkages may be utilised.

21.5 Quick shifters of any type are not permitted.

## **22.0 Wiring Harness**

22.1 Original equipment wiring harness may be modified or replaced.

22.2 No data acquisition or non-standard functions may be included in the replacement harness.

22.3 For neatness & safety redundant & excess wiring should be secured in such away it causes no restriction to machine function (i.e., fork/yoke movement and steering).

## **23.0 Cooling System**

23.1 Must remain as homologated except the thermostat may be removed.

23.2 Only water is to be used in the cooling system (no anti-freeze is permitted as per ACU handbook).

23.3 The cooling fan may be removed complete with electrical connections.

## **24.0 Engine**

24.1 This must be as original. Any additional removal of material is forbidden. Any engine modification is forbidden. Except for drilling to enable lock wiring.

24.2 Ignition systems (ECU) must remain as standard OEM items with the original software loaded. Flashed OEM or aftermarket replacement items are not allowed. These may be removed at any time by the officials and replaced with standard units or ones from other machines.

24.3 The maximum power output for all eligible models is nominally 52bhp at the back wheel, should organisers wish this to be measured the engine will be sealed and tested within 48 hours. Any form of tuning to reach this limit by means other than specified is strictly forbidden.

24.4 An oil containment tray to ACU regulations must be securely fitted under the engine. Items designed for racing are strongly recommended and are available from several bodywork suppliers.

24.5 Ignition timing must remain as standard.

24.6 Standard or aftermarket cylinder head gaskets may be used. The head gasket as supplied may not be modified in any way.

24.7 Only in the case of necessity will a surface matching of the cylinder head be permitted. This shall be limited to a skim of up to 0.125mm off the cylinder head OR engine block (not both). Technical officials will use a clearance tool to monitor compliance. Any machine which for whatever reason fails the compliance test must be stripped by the competitor concerned to verify compliance. ONLY the Technical Officials will be present at the measuring process.

24.7 Gearbox parts and ratios must remain as standard, using standard OEM gears and materials only. No aftermarket parts or ratios are allowed. -

## **25.0 Final Drive**

25.1 Sprockets may be changed from standard to aftermarket replacements.

25.2 The pitch of the chain and must remain as standard. Honda CB = 525

25.3 The front sprocket on all machines must remain as standard. Honda CB = 15

25.4 The rear sprocket on each machine may be changed to a maximum of 2 teeth more than original. Permitted rear sprockets: Honda CB = 40/41/42

## **26.0 Speedo/Rev Counter**

26.1 The original speedo and rev counter assembly can be removed, retained or modified.

26.2 The use of aftermarket rev counters and shift lights is permitted.

26.3 The fitment of a rev counter is recommended to aid with noise testing at circuits. Having no rev counter fitted may result in riders being turned away from noise testing and refused permission to take part in practice and/or racing.

## **27.0 Handlebars**

27.1 Both standard and suitable aftermarket handlebars may be used (e.g. Renthal).

27.2 Bar ends must be fitted to the handlebars.

27.3 The handlebar ends must not drop lower than the centre line of the handlebar mounting points.

27.4 Flat handlebars with no lift are permitted.

## **28.0 Chain Protector**

28.1 A shark fin type chain guard must be fitted as per the ACU regulations to the underside of the swingarm on the drive chain side of the machine.

## **29.0 Wheels**

29.1 Wheels must remain as standard and with original rim sizes and bearing sizes.

29.2 Either drum or disc brake rear wheels from the original models may be used.

29.3 Provided the original wheel bearing sizes are retained; captive spacers may be utilised to assist wheel changes. Changes requiring alternate bearing sizes are not permitted.

29.4 Spindle (ends only) may be modified to prevent damage, retaining original materials.

## **30.0 Items That Must Be removed**

Side and centre stand, Rear view mirrors, Traffic indicators, Front Lights, Rear Lights, Light fittings and left-hand switch gear, Horn, Registration plate support, Pillion support bars, Stand handles, Internal gear of the mileage indicator (where applicable)

## **31.0 Presentation**

31.1 The organisers reserve the right to refuse any machine admission to the start if, on arrival at the technical inspection it is not in a presentable condition.

31.2 Machines should be maintained to a high standard and checked regularly before, during and after meetings by competitors to ensure continued compliance.

### **32.0 Aftermarket Components**

32.1 Aftermarket parts may be used provided they offer no performance advantage over the original parts, and no technical advantage is gained.

### **33.0 Parc Ferme /Disputes/Challenges**

This is covered in the ACU handbook and minor queries should be directed through the riders' representatives. Check ACU Handbook for correct procedures.

### **34.0 General**

34.1 If there are any queries relating to these regulations contact MERS UK General Secretary.