



BMCRC Thunderbike UK Championship Regulations 2012

BMCRC Rev 03 (21-09-11)

Overview :

Question : What sort of bike fits the BMCRC Thunderbike series ?

Answer : Most bikes built before the year 1998 and many newer bikes up to 2012.

The series is designed to allow engineers, riders, and anyone with an interest in improving their bike more freedom from the current “production style” rules, prevalent in all forms of current motor sport.

The rules give a wider range of bikes a chance at racing. You may take any machine eligible and upgraded them (forks, brakes and suspension etc..)

The power to weight restrictions mean close racing is always achieved and any rider can be competitive. Some competitors believe light weight is better, others that more power is best and suffer the weight penalty. With winners on everything from Super mono singles to - 1000cc it looks like this argument is still yet to be resolved.

There are no restrictions on manufacturer for any parts other than the Frame/crank cases combination.

Technically interesting - Exceptions that may be included :

A basic BMCRC Thunderbike must conform to the rules shown, but any **Technically interesting** machine whose engine conforms to the rules stated may also be considered and approved on an individual basis by the series coordinator(s) and/or eligibility officer(s). Successful applicants will be notified in writing by the series co ordinator(s) and/or eligibility officer(s), their decision is final. If in doubt contact us at : mikedommett@hotmail.com.

Technically interesting could include but not restricted to : Spondon, Harris, Vyrus, Bimota, Rob North, Self build or prototype or something interestingly modified. If in doubt and you want to build something not obviously listed please ask. We actively encourage different ideas.

Common Eligible Bikes

Please note **this is not a definitive list** but a guideline to common bikes eligible to race.

Aprilia

Model	Group
Shiver 750cc	1 or 2
550cc Twins	1 or 2
RSV1000R up to and including 1999	2
Falco up to and including 1999	2
RS250	1

Ducati

Model	Group
All Air cooled SS Range. 600cc – 1100cc	1 or 2
Multistrada	1 or 2
All air cooled Monster Range	1 or 2
748	1 or 2
748 with 853 Conversion	2
749 up to 2004 model not S or R	1 or 2
ST2 and ST3	1 or 2
916	2
996 up to 1999	2

Honda

Model	Group
All Air cooled machines	1 or 2
RC30	2
RC45	2
VFR 750F up to and including 1999	2
CBR600 up to and including 1998	1 or 2
CBR600FX up to and including 1999	2
CBR Fireblade up to and including 1999	2
VTR1000 up to and including 1998 (not S model) (special inclusion).	1 or 2
NC30	1 or 2
RVF400	1
CB500	1 or 2
CBR1000F up to and including 1999	2
NSR 400	1
NSR 250	1

Kawasaki

Model	Group
All air cooled machines	1 or 2
ZXR-400	1
ZX-6R up to and including 1999	2
ZX-9R up to and including 1999	2
ZXR-750	1 or 2
ZX-7R up to and including 1999	2
GPZ 900	2
KR1-S	1
ER-6 Including Big Bigbore up to engine rules	1 or 2

Suzuki

Model	Group
All air cooled machines	1 or 2
GSXR 750 up to 1992	1 or 2
GSXR 750 up to and including 1999	2
GSXR 600 SRAD up to and including 1999	2
GSXR 400	1
GSX 600F	1 or 2
GSX 750F	1 or 2
TL1000S not R	2
RGV250	1
RG500/RG400	1 or 2
RF600	1 or 2
RF900	2
SV650 Including Big Bigbore up to engine rules	1
SFV Gladius Including Big Bigbore up to engine rules	1
GSF 750	1 or 2

Triumph

Model	Group
All early air cooled triple models.	1 or 2
3 cylinder fuel injected models up to and including 1999	2
T595	2
955i	2

Yamaha

Model	Group
All air cooled machines	1 or 2
TRX850 (Special inclusion)	1 or 2
FZR600	1 or 2
YZF-600 up to and including 1999	1 or 2
FZR-400	1
FZ750	1 or 2
RD500LC	1 or 2
FZR1000 up to and including 1999	2
YZF750 Inc SP Version	2
FJ1200 (special inclusion)	2
OWO1	2
R1 up to and including 1999	2
R6 up to and including 1999	2
RD350LC/YPVS	1
TZR250 inc 3MA & 3XV	1

Please note the power to weight ratio applies to all machines.

All machines must have unaltered VIN Frame and Engine numbers.

All machines must comply with the machine preparation regulations as set out in the current ACU Handbook for road race meetings.

BMCRC Thunderbike Classes :

Supermono : Single cylinder machine

Light weight : Machines up to 75bhp max

Sport : Machines up to 105bhp max

Extreme : Machines producing up to 130bhp max

Supermono, Light weight and Sport classes will run as the BMCRC Thunderbike **group 1** Championship.

Extreme : will run on the same grid (separated) as the BMCRC Thunderbike **group 2** championship.

The Rules & Technical specifications :

1. Race numbers and background colours:

1.1 Race numbers for this class must be Black on White background for Supermono, Light weight & Sport. Black on White background with Blue border for Extreme.

2. Chassis :

2.1 Frame and engine cases must be from the same production model and year where applicable.

2.2 Single cylinder motorcycles and accepted "technically interesting" motorcycles may use any frame but the engine must conform within the engine (section 3) guidelines.

2.3 Anything not listed above may be altered or changed.

2.4 Hybrid bikes (Big engine, small frame) whose engine conforms to the rules stated may also be considered and approved on an individual basis by the series coordinator(s) and/or eligibility officer(s)

2.4.1 In the case of hybrid bikes, 4 stroke engines must be mounted in a 4 stroke chassis. 2 Stroke engines mounted in a 2 Stroke chassis.

3. Wheels and tyres

3.1 Wheels may be replaced. Tyres can be treaded or slick. Rain tyres may be used.

4. Engine

4.1 Reducing engine size of machines from stock displacement to meet BMCRC Thunderbike class displacement limits is not allowed.

4.2 Engine displacement limits are absolute and are set as follows:

Supermono/lightweight/sport classes

Single cylinder, Unlimited displacement. 2 stroke GP road race machines are not allowed in BMCRC Thunderbike.

Twin cylinder, air cooled, Unlimited displacement

Twin cylinder, liquid cooled, 3 or less valves per cylinder, Unlimited displacement

Twin cylinder, liquid cooled, 4 valve per cylinder, up to 750cc (Ducati 749 to 2004 model not S or R)

Three cylinder, non-fuel injected only up to 1200cc

Four cylinder air-cooled, 2 or 4 valve up to 1200cc.

Four cylinder, liquid cooled, up to and including 1998 model year, up to 650cc

Four cylinder, liquid cooled, up to and including 1994 model year, up to 850cc

(Model year refers to year of manufacture, proof of which lays with the competitor)

Extreme class.

Single cylinder Unlimited. 2 stroke GP road race machines are not allowed in BMCRC Thunderbike.

Twin cylinder air cooled Unlimited

Twin cylinder liquid cooled up to and including year 1999 model (includes 749 Ducati)

Three cylinder air cooled unlimited

Three cylinder Liquid cooled up to and including 1999 model.

Four cylinder Air cooled and liquid cooled max1000cc up to and including 1999 model.

(Model year refers to year of manufacture, proof of which lays with the competitor)

5. Electronic control systems

5.1 The use of electronic control systems to aid launch or traction are strictly forbidden.

6. Power Restrictions (measured at the rear wheel)

6.1 **Supermono** : Single cylinder machine 1 SAE horsepower to every 1.56kg in weight. (Eg current supermono 75hp weighing 117kg.)

6.2 **Light weight** : Machines producing up to 75bhp max 1 SAE horsepower to every 1.63kg in weight.

6.3 **Sport** : Machines producing up to 105bhp max 1 SAE horsepower for every 1.81kg in weight.

Extreme : Machines producing up to 130bhp max 1 SAE horsepower for every 1.46kg

6.4 Power to weight ratio will be calculated as the weight of the machine divided by the tested horsepower when inspected. Inspections can occur post race or post qualifying or randomly as required by the organiser or Technical Official

6.5 Any machine found to exceed the power to weight ratio on a dyno or weighing device selected by the organizers may be excluded from the results.

6.6 All machines must carry a sticker identifying their power to weight class.

These will be :

.....Single Cylinder

.....Light weight

.....sports

.....Extreme

Stickers will be available from the race office at race weekends.

7. Controls

7.1 Throttle stops or cable adjustments must be fixed or secured in a manner that will prevent adjustment by the rider or crew without the use of tools prior to dyno testing.

7.2 Switches or other methods designed to affect horsepower readings during dyno testing are strictly prohibited.

7.3 Machines are restricted to the mounting and use of one ignition or engine management module during all competition. Modules with more than one setting must be mounted in such a way that the settings cannot be altered by the rider or crew while on course or prior to dyno testing.

8. Technical Inspection

8.1 The dyno operator, Technical Official or person appointed by the race or series organisers to ensure eligibility, may request removal of bodywork before, during or after dyno testing, and may request removal of other components for inspection.

8.2 Any machine not capable of post race dyno testing will be deemed to have failed the dyno test.

8.3 Machines will be run on the dyno until, in the opinion of the dyno operator, the maximum output is achieved, in the opinion of the dyno operator or race official, an unsafe condition exists while performing the dyno testing, the test will be stopped and the Clerk of the course in conjunction with the Technical officer will make the final decision on the dyno test results.

8.4 Machines will be selected at random by race officials to run on the dyno as soon as possible following the end of the race. **Failure to report directly to the dyno when requested may result in disqualification.**

8.5 **All machines must have at least 1 spark plug lead or coil lead accessible to the Dyno operator** to allow the pick up clip from the dyno to be attached. This ensures the quality of the test and is in the competitors own interests. Machines where the lead is unavailable may be disqualified.

8.6 All machines will be weighed on the BMCRC Technical Officials own scales. They will be calibrated in house before each round and yearly as deemed necessary. They are definitive. (Circuit scales will only be used if the BMCRC scales are unavailable).

8.7 Machine test procedure will be as follows.

Machine(s) will be selected.

The machine will be weighed with fuel but without rider.

The machine will be Dyno tested and a Pass or fail given. No other information will be supplied.

8.8 Bikes which have been deemed to have failed the power to weight or technical rules may be excluded from the race results. This exclusion may be for the entire meeting at the discretion of the clerk of the course.

Motorcycles approved to race in BMCRC Thunderbike series providing they meet the power to weight regulations. Please note **this is not a definitive list** but a guideline. Please ask if you are unsure about the model you wish to race. There are some "exceptions" included which are specific bikes thought to be in the spirit of BMCRC Thunderbike. They must still meet the Power to weight regulations.

Aprilia Group eligible

Shiver 750cc 1 or 2

550cc twins 1 or 2

RSV1000R Up to 1999 year model 2

Falco up to 1999 year model 2

British

Any British manufactured bike meeting the engine regulations. 1 or 2

BMW

All air cooled Horizontally opposed twins. 1 or 2

All water cooled twins to 750cc. 1 or 2

K series 750cc triples. 1 or 2

1000cc twins to 1999 year model 2

Cagiva

Raptor 650 1 or 2

Raptor 1000 up to 1999 year model 2

Ducati

All air cooled SS range. 600cc - 1100cc 1 or 2

multistrada 1 or 2
all air cooled Monster range 1 or 2
748 models 1 or 2
749 model (to 2004 model not S or R) 1 or 2
ST2 and ST3 1 or 2
Ducati 916 2
Ducati 996 up to 1999 year model 2

Egli
All Egli framed bikes meeting the engine regulations
or of special interest. 1 or 2

Harris
All Harris framed motorcycles meeting the engine regulations
or of special interest. 1 or 2

Honda
All air cooled machines. 1 or 2
All pre 1995 liquid cooled machines up to 850cc 1 or 2
All up to 1998 liquid cooled machines up to 650cc. 1 or 2
4 cylinder up to 1000cc machines up to and including 1999 2
CB500 1 or 2
NC30 – 400cc 1 or 2
Deville 1 or 2

Kawasaki
All air cooled machines. 1 or 2
All pre 1995 liquid cooled machines up to 900cc 1 or 2
All upto 1996 liquid cooled machines up to 650cc. 1 or 2
4 cylinder up to 1000cc machines to and including 1999 2

KTM
All 2 stroke and 4 stroke singles. 1 or 2

MotoGuzzi
All air cooled 2 valve machines. 1 or 2
All air cooled 4 valve machines 2

Nevel
Any model. 1 or 2

Suzuki
All air cooled machines. 1 or 2
All pre 1995 liquid cooled machines up to 900cc 1 or 2
All 4 cylinder up to and including 1998 liquid cooled machines up to 650cc. 1 or 2
4 cylinder up to 1000cc machines up to and including 1999 2

Triumph
All early air cooled triple models. 1 or 2
T595 2

955i 2

all 3 cylinder fuel injected models up to 1999 year model. 2

Yamaha

All air cooled machines. 1 or 2

All pre 1995 liquid cooled machines up to 900cc 1 or 2

All up to 1998 liquid cooled machines up to 650cc. 1 or 2

TRX 850cc (special inclusion). 1 or 2

4 cylinder up to 1000cc machines up to and including 1999 2