

**VMCC LTD; BRITISH HISTORIC RACING - MACHINE SPECIFICATION - ISSUE 02/2017
(REPLACES EARLIER SPECIFICATIONS)**

GENERAL

Subject and subordinate to ACU Standard Regulations for Road Racing. Every machine must comply in every way to the ACU Standing Regulations and Specifications. All classes will be open for entry using motor vehicles and components of European and American manufacture only unless indicated in a particular class specification. (AGM 11/12). These rules define the additional requirements necessary to compete in VMCC Ltd Road Racing Events.

IN PARTICULAR NOTE:

- 1 All major engine, gearbox and frame components must be of a type manufactured in the year of the machine period. The use of later components updates the bike.
- 2 It is impossible to lay down hard and fast rules as to what can and cannot be altered, replaced or re-designed and still harder to enforce them; but it is hoped that members and others preparing racing machines will interpret the following in the right spirit.
- 3 The object of the Machine Specification is to try and preserve machines used for Vintage speed events so that they appear, as far as possible, as per their original specification - "in order that a new generation can marvel".
- 4 Parts, especially internal engine parts, have to be replaced from time to time and it is obvious that adaptations have to be made and non-standard items fitted; but any external components should be in keeping with the rest of the machine and consistent with safety.
- 5 There may be isolated cases where the original specification appears contrary to the Machine Specification i.e. there was a magneto in the vintage period with rotating magnets. Obviously, these are "exceptions to prove the rule".

RULES APPLYING TO ALL CLASSES

Only parts of a type manufactured before the cut off year may be used.

STREAMLINING - No streamlining other than small period looking fly screens on post 1948 to 1963 solos and pre 1959 sidecars, full period type streamlining allowed only in the three wheel/specials/clubman's/bantams/ Ducati and BEARS classes. (AGM 11/12)

CAPACITY - Machines with standard stroke may still be run in their original capacity class providing that the cylinder bore of the machine does not exceed .060" over the standard bore. If the bore is further increased and / or the stroke is increased then the machine must run in the appropriate capacity class. The bore and stroke of the engine must be clearly stamped on the crankcase or stamped on to a metal plate and securely fixed to the crankcase.

TYRES - Tyres must conform to current ACU Regulations, be in serviceable condition and be of such a width as can be fitted without modification to the frame or forks subject to a maximum width of 130mm and to a minimum of 70 series profile.

WHEELS - For solo classes the maximum rim width is WM3 excepting Solo Motorcycles over 500cc to 1962, which may use rim widths as recommended by tyre manufacturers to accept 130 section tyres. (AGM 11/10) Also the F1 BEARS class.

FUEL - Any commercially available pump fuel (unleaded, leaded, super unleaded or lead replacement up to Avgas 100LL specification or Diesel) may be used. The addition of any lead replacement additive approved by the Federation of British Historic Vehicle Clubs is permitted. Methanol may be used in any class of machine (Pre 1973). An orange day-glow disc (minimum 3" diameter) must be affixed on or immediately adjacent to the Racing Number Plate on both sides of any machine using methanol.

ON ROAD LEGAL MACHINES THE FOLLOWING PARTS MUST BE REMOVED;

1. Front registration plates
2. Pillion footrests
3. Side and centre stands
4. Rear stand (if retained, must be securely wired)
5. Headlight and rear glasses to be removed (if retained must be taped and bulbs removed)

PRE 1935 CLASS (UP TO 31-12-34)

FRAME AND FORKS - modifications to engine plates and strengthening allowed.

TANK - Steel, copper or brass, quick release fixings only as used before 1935.

MUDGUARDS - Must be metal and if alloy must be painted to match machine in general. If alloy rear guard, it is advisable to fit strengthening strips on the underside.

HANDLEBARS - One-piece handlebars, not "Ace type", clipped to steering head yoke, not direct to forks.

CONTROLS - Foot change attachments for gears, positive or non-positive, are permitted if mounted externally to original gearbox. The fitting of a post 1934 gearbox end cover with positive stop mechanism is not permitted.

HUBS - Of a design in use before 1935. Two leading shoe conversions not permitted but, if desired, 2 brake drums of contemporary (pre-1935 design) may be built into one hub centre. Air scoops and lightened back plate and drums are allowed. In the interest of safety all brake anchor fixings must be adequate in section and securely attached.

WHEEL RIMS - Must be steel of a size available before 1935. In view of a ban at some tracks, beaded edge rims are not permitted.

ENGINE - All main castings to be of a design and of a material in use before 1935. External modifications which materially alter the original appearance will not be permitted - e.g. extra fining on barrel / head, repositioning magneto and drive, alteration to induction layout as in conversion to down draught.

CLUTCH & GEARBOX - All main castings to be of a design and of a material in use before 1935 (see controls re foot-change).

EXHAUST SYSTEM - The exhaust system must comply with ACU regulations and noise controls and be in keeping with the period appearance of the machine.

CARBURETTOR - Genuine carburettors of any make or type, plus standard needle-type Amal (type M.6 etc., pre Monobloc).

Track type 27 carburettors may be used.

MAGNETO - Any magneto except rotating magnet type.

PRE 1949 CLASS (UP TO 31.12.48)

HANDLEBARS, CONTROLS, WHEELS, GEARBOXES, FRAMES, FORKS AND TANKS - should be of original type. Gearboxes restricted to a maximum of 4 gears.

ENGINE - Must be of a make and type originally fitted by the manufacturer, all major components must be of the year in question.

WHEEL RIMS - All machines produced before 1.1.37 must have steel rims. Alloy rims may be fitted to racing machines produced after 1.1.37. Rims must be at least 19" diameter on machines produced before 1.1.37. 18" rims may be used on later machines.

MUDGUARDS - Must be metal and if alloy must be painted to match machine in general. If alloy rear guard, it is advisable to fit strengthening strips on the underside.

SEATS - Dual seats may only be fitted to machines produced after 1.1.45.

CARBURETTOR - Only early 2-piece Amal, TT Amal and track Amal may be fitted. Remote needle (RN) type TT Amal may be fitted from 1.1.37.

IGNITION - Rotating magnet magnetos may not be used unless fitted as original equipment.

REV COUNTERS - Contemporary and Small Electronic Round Analogue types may be used. Digital types may not be used.

HUBS - Must be of a type fitted by the manufacturer with the machine. No dual brakes permitted on solos unless original specification.

Note of special interest. Vincent Girder Forks (Girdraulics) are accepted within the girder fork class. (AGM 11/17)

PRE 1973 SPECIALS & CLUBMANS (UP TO 31.12.72) TWO STROKES UP TO 31/12/1967

Motor vehicles and components of European and American manufacture only and parts of a type manufactured up to the end of December 1972 are eligible. The specials must be of a type built e.g. Triton etc. Period streamlining may be fitted. Factory built specials and small factory runs e.g. Royal Enfield GP5, Dunstall Norton etc. are eligible. The specification, appearance and suitability of machines will need the approval of the committee. They must have received and approved details of a special for it to be eligible for championship points.

CARBURETTOR - Left hand and right hand Amal 11s's may be used. Smooth bores are not permitted.

CYLINDER HEAD- Triumph engines -10 stud head may be used.

WHEELS - Solo Motorcycles over 500cc to 1962 may use rim widths as recommended by tyre manufacturers to accept 130 section tyres. (AGM 11/10)

GEARBOX: The Indian Enfield 5 speed gearbox is allowed as a replacement for the Albion 4 speed. Gear change has to remain on the right hand side and the 5 speed logo removed. (AGM 11/15)

Sub class: (PRE 1973 "VINTAGE BEARS" 500 & 650 Classes, 4-speed, Drum brake, Four Stroke) (AGM 11-16)

Factory "road production" based machines of British European and American manufacture, and parts of a type manufactured up to the end of December 1972. Typical production based "mix and match" specials of a type built during the period e.g. Triton, Tribsa, Norbsa, Trifield are all eligible and indeed encouraged. One off "home-built frame/production engine" specials may be permitted at discretion of the committee where it can be shown such machine was built in the period. The specification, appearance and suitability of machines will need the approval of the committee. Period streamlining may be fitted. They must have received and approved details of a special for it to be eligible for championship points.

FRAME- Factory production based frame. Certain period one-off special frames at discretion of the committee.

ENGINE-Strictly "factory production" based. Manufacturer nominal standard bore/stroke for the type. Commercially remanufactured/replica engine parts are permitted, but must nominally be "bolt-on" interchangeable with the originals.

CYCLE PARTS- Any period type "factory production" forks wheels brakes that were available during the period may be used, any manufacture origin.

BRAKES- Period DRUM brakes only, of period "factory production" type, any manufacturer origin. Period type modifications permitted.

GEARBOX- Strictly four speed, original or reproduction. Pre-unit engines may be mix-matched with gearboxes of other manufacturer origin: eg BSA engine, Triumph gearbox etc.

PRE 1963 CLASS (UP TO 31.12.62)

GENERAL – Purpose built GP machines, period production based and special built race machines of the period are all eligible for this class. The above to include for example Tritons/TriBSA/NortonAJS/NortonG50/Various Velocette specials and many others that raced in the period. FOR ELIGIBILITY the rider/owner must provide proof to the eligibility team that a similar machine did race in the period. (AGM 11/12) External, easily seen, modifications of a minor nature only shall be permitted. Any internal, unseen, modifications shall be permitted.

CARBURETTOR - These must be of a type available in the period the machine was built. Amal GP types may only be fitted to a machine built from 1.1.49. Where a remote float chamber is used it must be of a type available when the machine was built.

IGNITION - Only magnetos may be used which are of a type available when the machine was built. All visible ignition components must be of a type available when the machine was built.

MUDGUARDS - Mudguards are not compulsory but must comply with ACU Regulations if fitted. Both mudguards must be made of a material used in the period and be adequately supported.

FUEL & OIL TANKS - The tanks must be of a type and size similar to those fitted by the original manufacturer to that model of that year.

SEAT - Seats must be in keeping with the machine's period and general appearance.

EXHAUST SYSTEM - The exhaust system must comply with ACU regulations and noise controls and be in keeping with the general appearance of the machine.

FRONT SUSPENSION - If fork gaiters are fitted they must be black; modern plastic dust excluders shall not be permitted.

REAR SUSPENSION - Rear suspension units must be similar in appearance to those originally fitted - blue painted and / or Girling gas units with remote reservoirs may not be used. Girling black un finned units may be used if they are similar in appearance to those originally fitted.

WHEELS - Any steel or alloy rims are permissible if they are 18", 19", 20" or 21" diameter. It is permissible to use smaller rims than those fitted by the manufacturer in the period. It is also permissible to use smaller rims than 18" if they were originally fitted by the manufacturer in the period. The drilling of brake drums is not recommended. Brake torque arms should be of steel or duralumin if fitted originally.

HANDLEBARS - Clip-on or Ace type handlebars or any handlebar made from more than one piece of material may only be used on machines with swinging arm rear suspension, unless it can be proved that handlebars of these types were fitted as standard on the original machine. Handlebar mounted controls must be of a type similar to those available during the period of the machine's manufacture. No dogleg type levers and only period type twist grips are allowed.

REV COUNTERS - Contemporary and Small Electronic Round Analogue types may be used. Digital types may not be used.

BATTERY - If the battery is fitted in a prominent position it must be externally similar to those available during the period of the machine's manufacture. A modern battery may be used if it is fitted in an inconspicuous position.

GENERAL FINISH - Any type of paintwork may be used if it is of a reasonable colour and is in keeping with the period of the machine's manufacture. The use of inappropriate badges, stickers, transfers and other characters will not be permitted. A reasonable level of neatness and cleanliness is required of all machines.

Note: Production Based pre-62 501-unlimited specials are eligible to enter and score championship points in the pre-62 501-unlimited class. The specials must be of a type built and raced during the period pre-62 period, e.g. Triton, TriBSA etc., and built using production manufactured parts of the period, no one off GP parts will be allowed. (AGM 11/09)

GEARBOX: The Indian Enfield 5 speed gearbox is allowed as a replacement for the Albion 4 speed. Gear change has to remain on the right hand side and the 5 speed logo removed. (AGM 11/15)

PRE 1959 SIDECAR OUTFITS (UP TO 31.12.58)

It is compulsory that all sidecars in Sidecar Outfits Unlimited to 1958 MUST be fitted with an effective lanyard type cut out.

Such outfits conform to the specification that a sidecar machine is a solo motorcycle to which a sidecar has been attached, and the machine must be able to be ridden as a solo if required. Machines made up from non Japanese parts made prior to the cut off date are allowed in this class. (AGM 11/12).

All 3 wheel rims must be of a minimum 18" diameter. Two brake drums of contemporary design may be built into one hub centre.

PRE 1987 SIDECAR OUTFITS (UP TO 31.12.86) (Amended AGM 11/16)

It is compulsory that all sidecars in B.E.A.R.S Sidecar outfits to 1986 MUST be fitted with an effective lanyard type cut out. Such outfits conform to the specification that a sidecar machine is a solo motorcycle that was available over the counter in the period which a sidecar has been attached and the machine must be able to be ridden as a solo if required.

A cut-off date of 31 December 1986 on all motorcycles. Only motorcycles manufactured in Great Britain, the United States of America and mainland Europe are eligible. (With the exclusion of 'Bimota' or any other mark when employing ineligible engines.)

STANDARD CLASS-

ENGINES; May be tuned in any way with the following exceptions; Must not exceed 1000cc*, Can not include any components unavailable before the cut-off date (including engine blocks). Fuel injection and ECU systems can only be of a sort fitted to a standard BEARs-eligible motorcycle and are interchangeable between makes. The bore and stroke must appear on the outside of the engine.

*NB: The 1000cc limit is waived for twins and triples and the original 1300cc ACU limit for those engines only. (AGM 11/17)

FRAME; Made by the same manufacture as the engine. Some leeway is allowed for a similar frame, different year. Additional bracing and modifications to frame geometry allowed. Frame loop to remain intact, i.e. no cutting away lower frame rails etc. Fabrication of lower sub frame allowed to fix sidecars to bikes manufactured without lower rails IE; Laverda Twins, BMW K100/K75

FORKS; Must be of a type fitted to the bike when it left the manufacturers. Upside down forks not allowed. Forks from any BEARs eligible bike allowed. Fork brace allowed. Similar looking forks that were manufactured later than the 1986 cut-off date ie: BMW K100 with integral fork brace are not allowed.

SWINGING ARM; Must be kept but suspension can be made rigid. Complete new rear sub-frame "hard tail" not allowed.

YOKES; Custom made/modified to bring about suitable trail allowed.

EXHAUST; Must follow the standard route for that motorcycle, must employ standard 'header' pipes. Silencer 'can end' is free. Must conform to ACU noise regulations.

WHEELS: Only Pre 1987, BEARs-eligible wheels allowed. (AGM 11/16) NB: All Pre 1987 sidecar outfits under 500cc may use 16" wheels* (AGM 11/17) The use of tubes in tyres is optional.(AGM 11/17) Wheels may be painted (AGM 11/17)

CARBURETTORS; Any BEARs-eligible carburettors or throttle body's allowed.

BRAKES; Any BEARs eligible discs/callipers are allowed. Only one caliper per disc.

BATTERY; Must be fitted in original position.

FUEL; All post 1972 outfits must use pump petrol, pre 1973 outfits may use methanol.

Wheels; Can only be of a type fitted to any BEARs-eligible motorcycle and be of a minimum diameter of 17"

SIDECAR SPECIFICATION; The minimum diameter of the sidecar wheel is 17"*. Sidecar must bolt to the bike as in the Pre 1959 event. Streamlining restricted to a small nose cone. Sidecar brake not allowed. Sidecar chassis must be made of steel tube or box section and conform to B2/B3 ACU Handbook regulations. Aluminium frames not allowed. Track 800mm minimum, 1105mm maximum. The distance measured from the centre of the track left by the rear wheel to the centre of the track left by the sidecar wheel. The ground clearance measured over the entire length and width of the vehicle race ready, fully loaded with rider, passenger and fuel must not be less than 65mm with the handlebars on a straight position. No device is permitted to reduce the 65mm ground clearance during the course of the event.

GENERAL; Fuel tank must be of a standard motorcycle tank type and be in the stock position.

TYRES; Slicks and cut slicks are not allowed. Any moulded tyres allowed with a maximum width of 140mm. Spacing away of rear wheel from centre line of the motorcycle is not allowed. (AGM 11/16)

ELIGIBILITY; Any doubts as to eligibility refer to the BHR committee before building.

(All BHR Pre 1959 outfits are eligible for this event.)

HOT ROD CLASS; As standard class with the following exceptions;

ELECTRONICS; Any ignition, ECU, fuel injection system allowed.

ENGINE; Later K series engine blocks may be fitted as long as they are declared as such for noise testing and program purposes. All BMW K series bikes must employ the eight valve head. The bore and stroke must appear on the outside of the engine and must be correct.

FUEL TANK; May be located on the sidecar platform but the original tank must be fitted to the motorcycle, unmodified and in the standard position.

BATTERY; May be fitted in a safe location within the outfit.

EXHAUST; Free, including headers but must comply with all ACU noise regulations.

ELIGIBILITY; Any doubts as to eligibility refer to BHR committee before building.

PRE 1973 THREE-WHEELERS (UP TO 31.12.72)

It is compulsory that all sidecars/three-wheelers in Sidecar based 3 wheelers up to 750cc to 1972 and Sidecar Based 3 wheelers to 1973 (not B3 cyclecars) MUST be fitted with an effective lanyard type cut out.

British Historic Racing - VMCC Ltd wishes to encourage the building and racing of genuine 'type' outfits of the Pre 1973 era. All machines must comply with the ACU regulations for Road Racing and the Machine Specification and in all cases the engine, gearbox, hubs and ancillary parts must be of a type available before December 31 1972.

ENGINE - i) Sidecar based 3 wheelers up to 750cc to 1972 - Motor vehicles and components of European and American manufacture only, up to 2 cylinders, 2 valves per cylinder, up to 750cc.

ii) Japanese pre 1982 up to 750cc air cooled. (Chassis type as per current pre 72, front exit style only. AGM 11/16)

iii) European pre 1982 up to 750cc air cooled. (Chassis type as per current pre 72, front exit style only. AGM 11/16)

iv) Sidecar Based 3 wheelers to 1973 - Engines to be of European and American manufacture only - unlimited.

CYLINDER HEAD- Triumph engines -10 stud head may be used.

CHASSIS - Must be of a type recognised to be of the period and of tubular construction, either bolted or welded to form an integral unit. All handholds must be of a closed loop type. All suspension must be of a type available in the period.

WHEELS - any steel or alloy wheels, in keeping with the period, are permissible subject to a maximum inside rim width of 5.5" (140mm). Tyres should be of a type or similar to those available in the period and are restricted to a maximum contact width with the track of 5.5" (140mm). Tyres must have a manufacturer's moulded tread pattern. Modern low profile slicks, or hand cut slicks are not permitted on any wheel.

STREAMLINING - Period style fairings and streamlining are allowed. All bodywork must ensure passenger protection from wheels, chains etc.

BRAKES - Any period type system of cable, rod or hydraulic operation is allowed. There must be 2 independently operated systems.

BATTERIES, FUEL & OIL TANKS - To be securely mounted and adequately protected to avoid spillage.

IGNITION - Magneto, coil or electronic ignition system may be used but if it is the latter then it should be in an inconspicuous place.

CARBURETTORS - Any make of period carburettor may be used.

Left hand and right hand Amal II's may be used. Smooth bores are not permitted.

REV COUNTER - Any period rev counter may be used.

GENERAL FINISH - Any type of paintwork may be used if it is of a reasonable colour and is in keeping with the period of the machine's manufacture. The use of inappropriate badges, stickers, transfers and other characters will not be permitted. A reasonable level of neatness and cleanliness is required of all machines. A machine of poor appearance or inferior construction may be excluded at the Three-Wheeler Specification Sub-committee's discretion.

Notes of special interest: Formula 125 Sidecars (F125) are eligible to run with Event 16 (750 Sidecars). (AGM 11/17)

16" Sidecar Championship. At the end of the season a trophy is to be awarded to the first sidecar outfit with 16" front and rear wheels. (AGM 11/09)

B3 CYCLECARS

B3 cycle cars will have to comply with the above but as these machines are usually a one-off type, the Three-wheeler Specification Sub-Committee for approval will judge them on their merit. Riders intending to race in this class must submit a detailed specification to the Three-wheeler Specification Sub-Committee for approval and registration before any entry will be accepted.

Neither the rider nor the passenger may be attached to the machine in any way.

MORGANS

Morgan three-wheelers must comply with the Morgan Three-wheeler Club Racing Specification.

SINGLE CYLINDER DUCATI CHAMPIONSHIP

The championship is open to single cylinder up to 500cc Ducati solo motorcycles manufacture prior to 1977. It is open to bikes that are currently racing in England and Europe that do not conform to our events 2a, 2b and 3b, although the later can enter this championship. The class will be policed by our existing Ducati riders. (AGM 11/13)

GENERAL – The machine must be based upon Ducati narrow case or wide case single cylinder motorcycles manufactured up to December 1976 (when production ceased)

FRAMES – Frames must be as produced by the manufacturers although after market frame kits of the period such as, Harris, Spondon etc that were raced in the period are allowed. Alloy frames with proven period use only are allowed.

FORKS and SWINGING ARM – The period look of fork, fork yokes and swinging arms must be maintained. The maximum diameter of fork stanchions is 35mm. The use of upside down fork prohibited.

CARBURETTORS – Any carburettor produced in the period may be used as an “as used basis”

ENGINES – The external appearance of all engine components must be maintained as per the original engine manufacturer's specification, unless it can be conclusively shown that the external modifications made are from within the relevant period. The internal specification of all engines is free from restriction, but the machines must be entered in the correct capacity class.

BRAKES – Any single disc or drum brake available in the period can be used on an as used basis. The period look of the bike should be maintained.

GEARBOX – There is no restriction on the gearbox internals.

INSTRUMENT and CONTROLS – Must be of a type used in the period.

FUEL – As of BHR (VMCC) standing regulations but excluding methanol.

BSA BANTAMS- 125cc

1. **CAPACITY:** All machines will be of 125cc. Oversize pistons to +2mm are allowed on any engine, and 58mm long stroke engines (normally 52mm bore) are allowed to use up to and including 55mm pistons, allowing use of modern available equipment.
2. **ENGINE:** Modifications to engine or gearbox are allowed, provided that conditions (a) to (e) below are met: -
 - (a) Bantam crankcases must be used.
 - (b) Disc valve induction is prohibited.
 - (c) Pressurised fuel injection is prohibited.
 - (d) Only BSA close ratio and BSA normal ratios gears or exact copies (e.g. AA Snell) to be used. Maximum number of gears: Three
 - (e) Only standard cylinder barrel to be used, but may be modified internally. (Alloy Todd and BTW copies deemed to be standard but to remain air-cooled, not liquid cooled)
3. **FRAME:** Must retain Bantam main loop, but may be modified.
4. **WHEELS:** Must retain wire-spoke wheels
5. **BRAKES:** Front brake - No restrictions, except Wavy or Carbon Fibre discs not permitted. Rear brake - Bantam rear hub to be retained but may be modified.
6. **FORKS:** No modern ‘upside down’ forks may be used, although original Bantam upside-down forks are permitted.
7. **TANK:** Must be mounted in normal position on machine.
8. **FUEL:** Only Petrol or Avgas 100LL mixture to be used.
9. ACU standing regulations for road racing machines apply (where applicable).

BSA BANTAMS- 175cc

1. **CAPACITY:** All machines will be of 190cc capacity maximum.
2. **ENGINE:** Modifications to engine or gearbox are allowed, provided that conditions (a) to (i) below are met: -
 - (a) Bantam crankcases must be used, and remain externally unchanged, except for increasing stud centres to 60mm, on 52 and 55mm versions.
 - (b) Stroke to remain standard (58mm)
 - (c) Disc valve and Reed valve induction is prohibited.
 - (d) Pressurised fuel injection is prohibited.
 - (e) Only BSA close ratio and BSA normal ratios gears or exact copies (e.g. AA Snell) to be used. Maximum number of gears: three if close ratio, and four if normal road ratios
 - (f) Only standard cylinder barrel to be used, but may be modified internally. (Alloy Todd and BTW copies deemed to be standard but to remain externally unchanged)
 - (g) Cylinder stud centres not to exceed 60mm
 - (h) Water-cooling prohibited
 - (i) Ignition to be fixed timing. (i.e. not advancing or retarding type), however Ducati Energer and PVL straight line (max 4deg retard are allowed)
 - (j) Exhaust power valves prohibited.
3. **FRAME:** Must retain Bantam main loop, but may be modified.
4. **WHEELS:** Must retain wire-spoke wheels.
5. **BRAKES:** Front Brake: No restrictions, except Wavy or Carbon Fibre discs not permitted. Rear Brake: Must retain Bantam hub (may be modified)
6. **FORKS:** No modern ‘upside down’ forks may be used, although original Bantam upside-down forks are permitted.
7. **TANK:** Must be mounted in normal position on machine.
8. **FUEL:** Only Petrol or Avgas 100LL mixture to be used.
9. **CARBURETTOR:** Size: 38mm maximum, circular bore only.
10. ACU standing regulations for road racing machines apply (where applicable).
11. Any rider winning the Bantam Championship on a 175cc machine must progress to 125 thereafter

B.E.A.R.S. (British European and American Race Series) (AGM 11/13)

GENERAL: Machines MUST be derived from a Production Road Going motorcycle freely available to the public prior to 31st December 1985. No motorcycle derived from any form of original competition motorcycle will be eligible. All components must be British, European or American unless otherwise stated. There will be three class championships

a) Up to 500cc* (Formula 3), b) 501cc to 750cc (Formula 2), c) 751cc to unlimited (Formula 1).

FRAMES: Free choice of frame, specials welcome as long as they are constructed to a type/design typically used before the cut-off date. Frames must be constructed from steel tube. Anyone building a new frame should submit the design to the eligibility team PRIOR to starting to build/modify same. Typical frames used in Formula 1, 2 and 3 series, Battle of Twins and Sound of Singles racing pre 1986 are eligible. Seats, Tanks, Fairings and other bodywork must be of a type or style as used prior to 1986. Japanese style fairings and seats NOT eligible.

FORKS: No 'upside down' forks will be allowed. Hub centre steering type forks as used prior to 1986 will be eligible.

BRAKES: No four-pot callipers and no Floating Disc's *unless* fitted to the original road machine that the bike was derived from.

BRAKE MASTER CYLINDERS: In addition to British, European and American master cylinders of the period, Japanese master cylinders of a type available prior to 1986 are eligible.

WHEELS/TYRES: Treaded Tyres only, no wet type tyres allowed. The use of tyre warmers will not be allowed. All BEARS machines can utilise either 17" or 18" wheels due to availability problems regarding many popular wheels used 'in the period'. Many early magnesium (Dymag, Campagnolo etc), wheels are now in poor metallurgical condition and the Astralite wheels, a popular contemporary are no longer available. A wide choice of 17" wheels and tyres are readily available at much more attractive prices. The maximum tyre width at the rear is 160mm.

CARBURETTORS: British, European and American carburettors of any type available prior to 1986 are eligible. Japanese Round-slide, Mikuni and Keihin carburettors will be eligible. IT IS ADVISED that should you propose to use carburettors other the British, European and American types, you should check with the eligibility team as to being eligible.

Notes of special interest: Dispensation for the Norton Interpol 2 and derivatives to run as a production machine. (AGM 11/16).

* Within Formula 3 class, A MZ "Supa/ 5" formula open to MZ TS250 series machines TS 250/1 (Supa/ 5s and four speed TS250) Excluded are the later "ETZ" machines). SPECIFICATION: Lights/ glass to be removed, the shell retained. Rear lights may be removed. Original silencer to be used - shortened to comply with ACU requirements. Wheel rims to be original spec (rear may be to 17" to allow for tyre choice). Front brake may be modified or replaced for period drum type i.e. twin leading shoe. Suspension: Front Sliders/ stanchion standard, springs to suit rider, rear units to suit rider. Original carburettor with standard bore, air filter optional. Handlebars to original mounts i.e. no clip ons. Control levers to riders choice. Mudguards to original specification but free choice of materials - i.e. plastic/ alloy. Air box: Side panels to be retained. Rear chain guard optional. (AGM 11/17)

JAPANESE SOLO MOTORCYCLES UP TO 500cc TO 31/12/1981. (AGM 11/14)

JAPANESE SOLO MOTORCYCLES 501cc to 998cc TO 31/12/1981. (AGM 11/16).

Roadster based machines of any Japanese manufacture with a maximum capacity of 998cc and available up to 31/12/81

CAPACITY & TYPE; Air cooled engines up to 998cc two or four stroke design. (AGM 11/16)

ENGINE: Any internal modifications allowed but profile of engine to look standard.

FRAME: Original manufacture or period faithful after market replica frames used in the period.

BRAKES: Any period faithful drum, single or twin caliper discs in use up to the cut of date.

WHEELS: 18 or 19 inch only, wired spoke or period cast including faithful replica, maximum rim size WM4.

FORKS: Any type that were available in the period.

CARBURETTOR: Any carburettor available in the period.

TYRES: No wet weather or slick tyres allowed. Must conform to ACU standing regulations for road racing club events.

APPEARANCE: The appearance and style of the machine must be in period. Bikes can be raced faired or unfaired.

FORMULA 750cc SOLO THREE BEARS CLASS FOR BIKES UP TO 31/12/1972. (Committee Meeting 1/10/2014)

All machines to conform to the B.E.A.R.S. (British European and American Series) specification agreed at the AGM of 11/13. Maximum engine capacity 750cc

AIR COOLED 125cc, 4 stroke Solo Motorcycles, Pushrod Operated Valve Gear based on the Honda CG125*. (AGM 23/11/2014 ratified AGM 22/11/2015)

125cc 4-STROKE: To include all production air cooled 125cc 4-stroke bikes.* (NB: New Class from 2018 season to replace CG125 class (specification ratified at AGM 11/17)

Specification. **ENGINE:** Any 4 stroke air cooled production based engine up to 125cc. Any internal modifications permitted.

FRAME: Production based. Any manufacturer. (Additional bracing, gussets and strengthening permissible)

BRAKES: Any disc and caliper, drum brake (Production based. Not floating disc or wavy unless original equipment).

WHEELS: Any production based 17, 18 or 19 inch spoked, steel or alloy rim, cast alloy (if original fitment) maximum WM2.

FORKS: Any telescopic type including upside down type if original equipment.

CARBURETTOR: Any carburettor(s) available. (excluding smooth bore or flat-slide). Fuel injection only if original fitment.

TYRES: To conform to ACU standing regulations for road racing club events. (no slicks or wet weather tyres allowed)

FUEL: Pump petrol, maximum octane as per BHR standing regulations.

EXHAUST: Free range to comply with current ACU noise regulations.

APPEARANCE: The appearance and style of the machine should be in the classic period style. Bikes can be raced faired or unfaired.

NOTE: Allowable re-bore accepted. The aim is to create a very low cost racing class. It is hoped that machines prepared for this class would be in accordance with this ethos.

ELIGIBILITY; Any doubts as to eligibility refer to BHR committee before building.

***OPEN PRE 86,125 CC CLASS** (The 125cc Air cooled, four stroke class be changed to an Open Pre 86,125 cc class) (AGM 11/17)

Open to all 125 cc machines. Specification; Cut off date - 31st December 1985

Engine : Any engine in use before the cut of date.

Frame: Any Steel frame that was produced before the cut off date, standard or aftermarket.

Forks - Any type available in the period.

Wheels - Must be wire wheels.

Brakes - Any Type that was in use before the cut of date.

Carburettor types - Any carburettor available in the period.

Tyres - No wet weather or slick tyres allowed. Must conform to ACU standing regulations for road racing club events.

ONUS OF PROOF

In all cases embracing "borderline" parts the onus of proof of eligibility of the machine or parts shall rest with the Entrant / Rider. The Technical Inspector will note any doubtful items. In the cases of flagrant or continued breach of the "Machine Specification" the matter will be reported to the Committee, who will take what action they deem necessary to prevent entry of such machine at future events.