

Rule change guide 2013 (in regard to the technical aspects of the rule change proposals.)

This Guide is written with the intent of giving you an understanding of the way the rule changes are written, however there are areas that our personnel input could not be helped but given.....

Note;- There are further implications in regard to voting for anything ISRA but see the ISRA rule book at www.isra-slot.com and click "rulebook" for complete rules in regard to classes.

The following rule changes in B should be treated with caution. To vote YES to any of these have implications for the classes you currently race. Voting Yes to any of the B proposals including amendments allows to council to change your racing to ISRA rules! Many of these severely restrict your choice.

B1 1/24 Production shall be run to ISRA rules with the existing BSCRA motor and body regulations.

B1 . Would mean that racing to these rules would mean that JK X21 and X24 chassis would be banned, in addition you would have to use a full length front axle (but you could also use ½ front wheels).

This would also automatically remove our current rule H2.2.13, banning the use of hardened or treated chassis. B1.1 (a rule change by stealth maybe?)

Amendment B1.1: with the existing BSCRA ground clearance rule. **Still Changes to ISRA rules.**

Amendment B1.2: with only the ISRA approved body allowed. **Still Changes to ISRA rules.**

B2 1/24 Eurosport shall be run to ISRA rules with the existing BSCRA body regulations.

The changes are;- Maximum wing height from 38mm to 35mm. Vertical front edge of body 1mm (currently no rule). Minimum ground clearance at any time 0.8mm! BSCRA is 0.5mm

Amendment B2.1: with the existing BSCRA ground clearance rule. **Still changes to ISRA Rules**

Amendment B2.2: with only the ISRA approved body allowed. **Still changes to ISRA Rules , but with Only One body choice, which would change to the current body which ISRA select annually, The shell is generally of a more 'scale appearance', with less down-force**

Amendment B2.3: with bodies to the current BSCRA Open Group 12 rule only. **Still changes to ISRA rules but means you race bodies from the BSCRA Open G12 body list only!**

B3 1/32 Eurosport shall be run to ISRA rules with the existing BSCRA body regulations.

The changes would be - Vertical front edge of body 1mm (currently no rule). Minimum ground clearance at any time 0.8mm! BSCRA is 0.5mm

Amendment B3.1: with existing BSCRA rules on ground clearance (see below). **Still changes to ISRA Rules**

Amendment B3.2: with only the ISRA approved body allowed. **Still changes to ISRA Rules , but with Only One body choice, which would change to the current body which ISRA select annually. The shell is generally of a more 'scale appearance', with less down-force**

Amendment B3.3: This is to apply to 1/32 F1 and 1/32 Europort. **Still changes to ISRA Rules , but with Only One body choice, which would change to the current body which ISRA select annually.**

NOTE on B1-3. For full details of ISRA car standards see section 4 of the ISRA Rulebook. ISRA require 0.8mm minimum ground clearance, BSCRA require 0.5mm minimum ground clearance in 1/24 and in 1/32 F1 and don't have a rule about 1/32 Eurosport ground clearance. ISRA have single body classes, where as BSCRA allow a choice.

B4 In 1/32 Saloon, a three class structure shall be introduced, allowing more extreme super saloon/GT's, with Open Group 12 motors, leaving the more scale cars (existing rules) in a class of their own and allowing production cars to compete.

Class A: Super Saloons/GT's (BSCRA saloons with Open Group 12 motors).

Class B: current BSCRA saloons.

Class C: cars running to production class chassis & motor regulations with saloon class body-shells regulations.

The Nationals shall be run for Class B, and all the classes shall be eligible for the BOC. Other events could choose which classes they allow

NOTE. The additional body-shells allowed for Super Saloons/GTs will include Ferrari 430 & 458, Porsche 911, Mercedes SLS, Lamborghini Gallardo, Audi R8 LMS, McLaren MP4-12C, Nissan GTR, Aston Martin DBRS9, BMW Z4, Dodge Viper, Jaguar XK, Ford Mustang & GT, Chevrolet Camaro GT, Corvette Z06R (all complying to the saloon car dimensions and regulations). Also the Ascari.

This is purely a matter of choice. Do you wish to expand the classes in a time of deep recession? Also it may fractionalise the existing racer base.

B5 In 1/32 Saloon, cars running to production class chassis & motor regulations, with saloon class body-shell regulations, shall be allowed to compete, but limited to intermediate and clubman grade drivers. **Possibly good for novice racers?**

B6 In both 1/32 and 1/24 Saloon car bodies shall be limited to those that have competed in the BTCC, DTM, WTCC, WRC, or V8 Supercars from 1982 to current year. **Do you still want to race 1/32nd Dodge Daytonas? Vote YES if you do NOT!**

NOTE There will be an additional body list for: Super Saloons/GT's if proposal B5 is passed.

B7 The following motors shall be allowed in 1/32 production in addition to the JK / TSR Falcons - JK Hawk 7 : Fast Ones Demon : Trinity Evil 9. **Allows a wider choice of FK type motors, ensuring price stability and availability**

NOTE these are sealed motors very similar in size and shape to a Falcon.

B8.1 The JK Hawk JK3030 motor shall be allowed in 1/32 production in addition to the JK / TSR Falcons. **This is NOT a good idea! See notes in the appendix to this document.**

B8.2 The ProSlot PS-4002 Euro Mk 1 motor shall be allowed in 1/32 production in addition to the JK / TSR Falcons. **Adoption of this rule would essentially be almost as damaging to the production class as B8.1, allowing a motor into the production class which would allow opening and blueprinting, escalating the current pricing of under £10 per motor to in excess of £45.**

Brushes for the JK3030 / PS-4002 are free choice, the bearings may be replaced with other oilites, the commutator may be retrued, and the shaft may be shortened but otherwise the motor must be completely standard.

NOTE these are serviceable motors with replaceable brushes, removable endbell etc. You can vote for both, either or neither motor

Amendment B8.10 the can end bearing may be replaced with a ball race. **This would allow the adoption of B8.1 or B8.2**

B9 Rule interpretations E2.3.10 and H2.2.13 (production chassis hardening etc.) shall be deleted.

NOTE In the proposer's opinion, it is impractical to enforce the existing rule interpretations.

This rule change proposal is technically unconstitutional (as pointed out to the Council), the council have however chosen to override this so it would appear it must be voted on. The proposition that the rule is “impractical to enforce” is fatuous. You may find a full and accurate observation on this rule change proposal in the appendix to this guide).

B10 The JK X32 chassis may have a spacer fitted over the existing lead wire tag. This spacer may be of any material and may not extend more than 3mm beyond the lead wire tag. This may be used to limit the pan movement.

NOTE the proposer recommends this as a simple alternative to existing ways of limiting the pan movement. **Your Choice, but the description of the “spacer” is so nebulous that it lends itself to abuse and scrutineering nightmares!**

B11 In 1/32 classes the body must have at least 2 different colours

NOTE there is already a similar rule in 1/24. **Your Choice**

B12 Car standard Rule A4 shall be amended to read "All cars must have a driver securely fixed, and consisting of a minimum of head, shoulders, arms and top segment of the steering wheel joining the hands **all appropriately coloured. These items must be 3 dimensional, not just painted on.** " (changes to the existing wording are shown in bold) **Your Choice**

B13 In all the closed wheel classes, 2 dimensional front wheels appropriately placed on the body shall be permitted instead of rotating front wheels. These fronts must look realistic, including a black tyre and wheel detail (Not just a black circle!). These fronts may be stickers. The minimum diameters are 14mm in 1/32 and 15mm in 1/24.

The above rule would apply to all sports and saloon classes and save racers from fitting front wheels. Bear in mind most commercially available front wheel stickers are 5/8” diameter. If this is voted for, it would also affect the proposed rule changes in regard to B1 - B3 where at present ISRA requires front wheels.

Amendment B13.1 The 2 dimensional (“sticker” etc.) front wheels shall be allowed and may hide the view of the normal front wheels, but the normal front wheels (to the existing BSCRA rules) must be fitted. **One may Question the value of this proposal!**

The 3 dimensional wheels to the existing rules shall still be required, but

Maintaining the rule but with the following exceptions

B14 It shall no longer be a requirement to stop and replace front wheels lost due to crash damage during a race. **Your Choice**

NOTE If this is passed, cars still have to have front wheels (or stickers if B13 is passed) correctly fitted at the start of each race. This rule has often only been enforced during the National Club Team Championship.

B15 In 1/24 Production the motor shaft diameter shall be 1.95mm minimum and 2.05mm maximum . **This has been proposed to limit cost in terms of motor shaft reduction and the use of expensive 1.5mm bespoke pinions.**

B16 In 1/32 Production and Formula 2 (Falcon F1) the motor shaft diameter shall be 1.95mm minimum and 2.05mm maximum. This has been proposed to limit cost in terms of motor shaft reduction and the use of expensive 1.5mm bespoke pinions.

NOTE this does not apply to Super Production

Amendment B16.1 Super production shall also have this shaft size . This has been proposed to limit cost in terms of motor shaft reduction and the use of expensive 1.5mm bespoke pinions.

B17 In 1/24 OG12 the motor shaft diameter shall be 1.95mm minimum and 2.05mm maximum. This has been proposed to limit cost in terms of motor shaft reduction and the use of expensive 1.5mm bespoke pinions.

Further rule proposals cover matters which are non technical and without the tremors of this document.

Appendix 1 motor rules -

The following is an extract from a report sent to the BSCRA Council in regard to using this motor for Class 4a Production Racing

Produced and compiled by Andy Brown-Searle of AB SlotSport, the official UK Distributor for JK products;-

STRIPPABLE MOTORS

JK 3030 "Hawk Motor" this was launched as a competitor to the Proslot Euro, featuring the same size can, albeit with a larger vent hole, ceramic magnets and a slightly hotter wind than the original Proslot Euro. This motor may be disassembled the same as a conventional C can motor.

JK30306 "Hawk 6 Motor" this is the last version of the strippable Hawk. It has Neodymium magnets and an endbell which has been redesigned for "USA" type commutators. It also comes with a replacement set of motor brushes as the brushes in the 3030 Hawk, were to be frank, truly horrible.

Serious objections in regard to allowing HAWK 6 (30306) or Hawk (3030) into BSCRA rules;-

1) BSCRA has over many years now adopted the sealed FK type motor for use in Class 4a racing, it is clear, despite a few teething problems with earlier versions of the Falcon motor, that this policy has been widely accepted and as a consequence has led to the adoption of this type of motor in a wide range of applications as a low cost and very even form of racing which in the novice class has provided a vehicle for fixed price motors which cannot be "blueprinted" or otherwise enhanced.

2) Throughout this period of racing with the FK motors, novice racers (which form any kind of growth in our sport) and many others have found that that this form of sealed motor racing has provided a cost controlled, low tech, and reasonably level playing field in terms of a wide range of racing classes , not only in Novice production, but also Falcon Pro, BSL and UKRRA racing.

3) We are, at this time in a period of serious financial recession and I firmly believe that to open the novice (class 4a) racing to strippable motors will seriously harm the sport by encouraging an "arms race" in regard to aftermarket services, product and blueprinting. So much so that the cost to the racing of a motor would rise from the present £9.95 per motor to around £45 + for a blueprinted motor.

4) Aftermarket versions of these motors are available from Koford, with aftermarket USA type armatures available from Koford and Proslot and reworked Chinese armatures available from Fast Ones, Alpha and many more.

The armature shafts in all versions of both the standard JK and Proslot motors are NOT drill blank, so as a competitive motor there would also doubtless be a call for the use of ballraces (or indeed aftermarket armatures).

The standard 3030 Hawk armature is not "tied or epoxied" and is therefore a "shoe in" for dewinding and aftermarket tweaking of timing etc.

Combined with the interchange possibilities of magnets from Proslot, the original JK ceramic magnets, the JK Neodymium magnets and even the easy (and it has to be said the rather effective use of Falcon 7 magnets) in these motors, the Association would be laying open a total minefield for scrutineers in terms of legality of armatures and magnets, along with the interchange possibilities of at least 4 different endbells from Proslot and JK, along with a black aluminium endbell which is now available.

Add to the above that USA armatures are also available for these motors from both Proslot and Koford in G12 and "Open winds" down to 24 gauge.

5) As a distributor, it may be thought that I would welcome such a "commercial opportunity" to "bleed dry" any racer in the Class 4A category, however, this is not the case. As JK's official UK distributor I am probably in a far better position to benefit from any such rule change, however, I consider that any such move to a strippable motor in the Class 4a category would irreparably damage the class in terms of racer cost and participation and also lead to an almost unstoppable "blueprinting and tweaking war".

As a cost comparison to the present Falcon 7 and proposed other FK motors at retail £9.95

At raceway 81 we race the JK Hawk 6 (JK 30306) with a ballrace in the can and an option to use the Proslot "Hawk" aftermarket armature.

The cost of this motor from new would be

Hawk 6 motor £13.25

Ballrace £ 5.00

Motor brushes £ 2.90

Proslot armature £22.50 (It would be highly unlikely that any "blueprinted JK 3030 armature would cost any less).

Total £43.65 minimum cost with no "blueprinting, rebalancing etc.

The racers at the club accept this cost as the chassis/motor combination is used frequently in 2 different classes and it performs faster than a Falcon, even on the "fixed shortest gear ratio" which is enforced @ 3.5:1 which ensures motor longevity. Without this gear ratio "fix" in the rules these cars would without doubt (an after testing) be as fast as good G12 motor.

Not I am sure the type of performance that we may wish to inflict on Novices and definitely not with the scrutineering implications or the price.

Andrew Brown-Searle

AB Slotsport

To Get an idea of how reliable the standard JK Hawk 3030 armature is - Go to the race report at <http://raceway81.com/page21.html>

"By 2.30pm on Friday the 9th., 14 Uber keen racers had already appeared for a bit of practice and to settle in for the weekends fun. Friday evening consisted of a 1 ½ hour team race for open chassis, JK LMP bodies and a chance to try out the new JK Hawk motor. The full results of this race are now consigned to the dustbin of history (due to the computer dramas of Sunday Morning) but it did prove to be somewhat amusing! Of the six teams that started, only 3 finished without losing the will to live (the others having blown up a selection of motors). Performance wise the motors did show a good turn of speed with lap times between 4.1 and 4.3 seconds, but some failed due to loose windings and rather interesting Smoke outs when they let go. (Glad to say there will be an epoxied, tagged and rebalanced version of this armature available in the next few weeks which will doubtless prove to have sorted the problems). The finishing teams all finished on the original motor and winners were AB Slotsport (aka Andy Brown- Searle & Les Bailey) on the very same motor that ran at Pinewood last month, 2nd home was Dave Lees and Dave Bradburn, followed by Peter Sidgwick and Peter Bowman. The other teams may wish to remain un-named!" A total of 11 motors were issued during this race, 3 survived.!

Is this a motor you really wish to approve for Novice racing?

Appendix 2 (over page) Considers the Chassis treatment rule

Testing and identification of heat treated chassis

During the first 3 rounds of the 2010 1/24th B.O.C. Series, it was noticed that a couple of JK production chassis raced were distinctly different in finish and presentation to the standard items manufactured by JK and distributed to racers from the various distributors. At the 4th round of the series (Loughborough - the 1/24th scale Nats in that year) this practice was appealed to the BSCRA Council who discussed the matter at the meeting and the council confirmed that to treat a production chassis by heat or chemical treatment was indeed outside the rules and ethic of production racing.

After due consideration and input from various sources the council published the following rule change and clarification.

H2.2.13 It is not permitted to undertake post manufacture heat and/or chemical treatments and/or shot peening to Production chassis components (Centre sections or Pan sections)

Rule clarification for BSCRA 1/24 Production, 1/32 Production and 1/32 Super Production classes

It is not permitted to undertake post manufacture heat and/or chemical treatments and/or shot peening to Production chassis components (Centre sections or Pan sections).

Note 1: For the avoidance of doubt this means any such treatment by any person other than by the original manufacturer in the original manufacturing process. Thus it is not permitted for entrants or intermediate suppliers to treat these components, whether by chemical dipping, replating, heat treatment, or addition of any substances including in solid, liquid or gaseous form or any combination of the above.

Note 2: This does not prevent the use of normal soldering or gluing operations on the chassis components to the limited extent specifically permitted in the regulations. Nor does it prevent straightening of bent components.

Note 3: Production car chassis are not eligible under the BSCRA regulations even if the treatments described above are undertaken by the original manufacturer beyond the specification of the approved product.

BSCRA August 2011

In December 2012 in the annual "Rule change proposal" process, it has been proposed that this rule be deleted from the rule book because "In the proposer's opinion, it is impractical to enforce the existing rule."

The fact that since the introduction of the rule NO chassis has been found to be treated which has competed in the the series until the present date would suggest that the rule is in fact totally pertinent and that the practice is now no longer accepted.

The proposer , has written in his own words "Personally I do not believe that heat treating a chassis should be legal, I have never suggested this, nor has anybody else. Nobody has ever said that it was impossible to recognise a chassis that may have undertaken a heat cycle"

And then goes on to ask how he could protest a chassis if he wished to and how could it be proved. The answer is simple - If it looks like a duck and it quacks like a duck - it is a duck"

There are numerous aspects to this rule.

Production racing is what it says - "Production" - that is a chassis which is mass manufactured to a given specification and sold at a list price. IT IS NOT a chassis which has had it's material properties modified by a 3rd party.

To "treat" and distribute for sale or use a chassis which is alleged to have enhanced properties for use in a production class is unfair to racers who do not have access to such product or who are then put in a position where they feel they have to pay a premium price above the cost of a standard chassis to be competitive in what is a Production Class. It may also be seen that to sanction the use of such "treated chassis" is not in the interests of the racers, or indeed, the ethic of Production class racing.

One may also question if such treatment actually does "improve" the chassis in any way. If it does, then clearly it is a process which is directly in opposition to the rules. If it does not materially improve the chassis then it is a "con" and not ethical to offer such a service "at a price" for no benefit.

The following pages explain the differences in appearance and nature of treated items and also data on the material

IDENTIFICATION

The chassis in question are the JK X series chassis which are manufactured from Austenitic Stainless Steel 304. This has a natural matt/semi matt finish, has good resistance to corrosion.

Upon application of heat to "glow red" the surface of the material will show deposits as seen on the photograph opposite. This sample is an X25 pan which has been cut in half for the purposes of testing. The right hand portion has been heated to glow red and quenched in water. It does not take an engineering degree to differentiate the heated and unheated parts.



Further, To remove all traces of such heat treatment and any other addition of chemical elements (especially in corners and edges etc. and restore the section to the original finish is nigh on impossible.

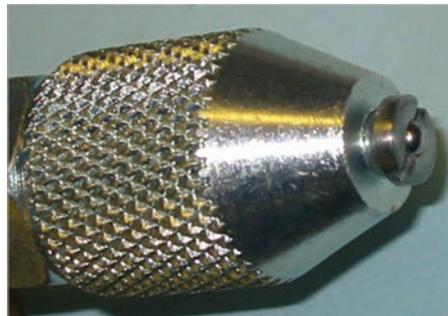
Both tests described are simple tests which may be undertaken with limited resources but can illustrate any real differences in material properties after treatment

TESTING

Subsequent to heating and quenching on section of the pan , both were tested in two different manners.

Initially they were tested for Surface Hardness, Both sections were placed on a flat vice anvil and a slide hammer with a 2Kg weight and a hardened chrome ball tip of 3.1mm diameter was applied to the surface. The Hammer slide was then dropped from a fixed height (the extent of travel of the slide hammer).

It will be noted that the impact dent was of identical size on both the heated and untreated sample, which would suggest that there is no material surface hardness difference



Having established there is little if any effect on surface hardness the components were then tested for “deflection” along the length of the pans.

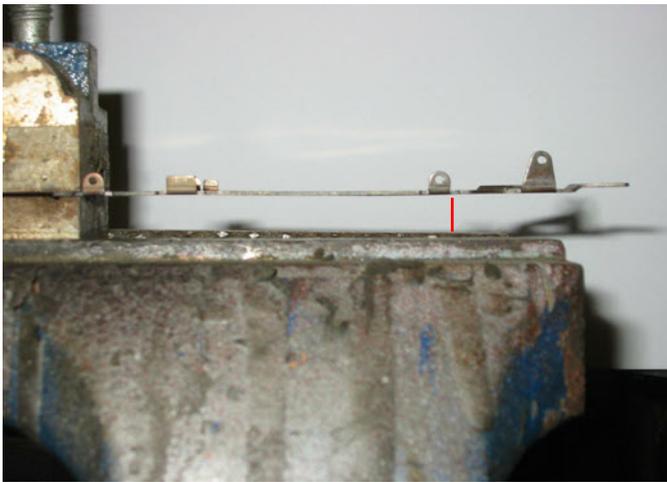
This was done by fixing the rear end of the pan and measuring the vertical height between the pan and the vice jaw with the pan “unloaded”. To show the deflection this operation was then repeated using a 100 gram calibration weight placed on the end of the pan and the vertical measurement retaken.

This test was undertaken on both the treated and untreated sections.

Deflection in the standard section was found to be 1.32mm

Deflection in the treated pan was found to be 0.85mm

Therefore it may be seen that the treated pan exhibited 0.47mm less deflection (fractionally less than 2/3 rds the deflection of the standard pan.)



Both measurements were taken directly in front of the forward pin tube mount

In addition to heat treating (which you will note in the attached properties PDF for the material states that “304 stainless steel cannot be hardened by heat treatment.”)

It further states that “Solution treatment or annealing can be done by rapid cooling after heating to 1010-1120°C.” Implying that it may be the case that the material properties may be influenced by further chemical addition such as Arsenic or other proprietary chemicals or elements. However it was not practical test for this.

It is your decision to make.

Do you consider that Post Production Treatment of chassis is illegal and unethical? It would appear that the BSCRA Council certainly did when they passed the rule.

As you have seen in this report it is almost impossible to treat chassis made from 304 Stainless in a manner which is undetectable in terms of visual inspection of surface finish.

Also, as noted previously, since the rule has been in force no-one has been found to have used a Treated Chassis in B.O.C. Competition. Therefore the RULE WORKS!

Why Delete the rule and leave the introductory 1/24th Scale Race Class open to future abuse?

Further material information may be viewed in PDF format at

http://www.aalco.co.uk/datasheets/Stainless-Steel_1.4301-304_34.ashx