

# Scrutineering 2017

During the 2017 season The scrutineering team will be working to bring you some new rule books, they will be steered more towards the individual classes, they will be easier to understand and we hope to do away with any grey areas there may have been in previous publications.

In 2017 we will work to the 2015 rule book along with any updates that have been agreed since then, there will be a simplified list below as a reminder to competitors, the rules will take immediate effect unless stated otherwise.

If there is anything that isn't clear then please. Contact your club or league scrutineers to make sure. Please also remember that no car will be allowed to race without a blue roll cage tag in 2017.

## Class 1 mini.

Contactless ignition systems are allowed, as in 2016 (restricted make and model only).

Straight through exhaust systems are not permitted.

Sump guards are now restricted to 3mm steel or 5mm alloy only, size is the minimum required to protect the engine sump, securely fixed, and not in a way that could strengthen chassis, suspension or engine mountings.

Special attention should be given to seat belt fixing on older cars where corrosion may be evident.

## Class 1 Micra and Yaris.

Standard production coil must be retained.

Inlet manifold, must be complete with standard production water hoses, sensors and connecting electrical wiring, the disconnecting or by-passing of the same is prohibited.

Bumpers must remain fitted at all times.

Battery charging system, including alternator must be retained.

Battery must be of equal or similar size to the original.

Sump guards are not permitted.

Diagnostic sockets must be fitted and must work.

## Class 2

After initial discussions regarding exhaust exit position, and the suggestion that exhausts had to exit behind the B pillar, it has been found that this is not practical in some cases, with this in mind the rule will remain unchanged during 2017 with further discussions to take place prior to the class 2 rule book update.

Suspension will be restricted for the 2018 season, again this will be discussed in detail, with permitted specification announced as early as possible.

Sump guards will be restricted to 3mm steel or 5mm alloy only, size is the minimum required to protect the engine sump, securely fixed, and not in a way that could strengthen chassis, suspension or engine mountings.

Cooling radiator will be restricted to equal or similar to standard manufacturer size, oversized radiators will be classed as ballast.

There have been some important changes made to valve seats, this rule was introduced for 2016, however we are aware that some cars may still be using illegal cylinder heads.

The following is taken from the April 2016 scrutineers meeting minutes.

*These rules apply to all the standard restricted classes. Class1. Class2. & Junior Specials.*

*Valve Seats.*

*The rule books permit the use of a 3 angle valve seat. If a particular vehicle already has this then that's it, it is not permitted to change this.*

*General rules, page 4 rule 2, only listed modifications are permitted, a part cannot be altered in any*

*way whatsoever, there is no rule listed other than permitting a 3 angle valve seat, so nothing else is permitted and therefore making anything other than 3 angles is non compliant.*

*Valve.*

*Page 17, rule 1.3, standard replacement components only must be used, on a standard valve the seat is in a set location. If the re-cut valve seat is in a different location to the standard valve, it is also non-compliant.*

*All cylinder head, valve, valve seat modifications can only be carried out in accordance with the manufacturers standard reconditioning procedures.*

*This is not a new rule, only a clarification of the rules we already have and will be implemented with immediate effect. The clarification given previously said that from 2017 the valve seat insert had to have enough untouched material to allow measuring in the throat, see below, this still applies.*

*Note. This will not be taken into consideration as being one of the 3 angles.*

*Valve Seat Inserts.*

*Concerns regarding modification to insert that may result in part of port being machined either deliberately or inadvertently when carrying out 3 angle cut. i.e. the 3<sup>rd</sup> angle cut below valve seat cut being a very shallow angle that extends the whole remaining depth of the insert and possibly due to cutter used beyond end of insert into the head port throat.*

*This practise, if discovered upon checking a head, will result in thorough examination and taking of measurements to check for compliance.*

*It is recommended that at least 1mm of last part of insert length remains untouched. i.e. 3<sup>rd</sup> angle shallow cut to end 1mm from base of insert.*

*Competitors on notice that:*

*As of January 2017 if 1mm un-machined part is not found then the head concerned will be deemed as non-compliant.*

*If there is any doubt on the above rules please contact a NASA scrutineer.*

### **Class 3**

There have been various scrutineering updates for class 3 during 2015 and 2016, these updates have been well publicised and understood, as a reminder here they are again.

Front of the chassis, engine cradle - All chassis or engine cradle construction should remain behind the front face of the front wheels / tyres, at all levels, different sized wheels should be taken into consideration when manufacturing.

Presently the rule book states that, at a height lower than 349 mm, this framework can protrude to within 20mm of the front panel of the vehicle, this is unsatisfactory and the rule will be amended as above.

All framework forward of the front face of the front wheels / tyres, should be restricted to 2 x 20mm tube / box braces supporting 1x 25mm tube / box cross bar supporting the front panel / bumper, as described in the current rule book.

Front wing supports and bonnet slam panel support bar, may be constructed from 20mm tube or box, connected to the panels described above only.

Rear of the chassis, boot floor etc - to simplify the present rules, all main framework should remain in front of the rear face of the rear wheels, from that point rearwards will be restricted to a maximum of 2 x 32mm support bars, supporting 1 x 32mm bar inside the original rear panel of the vehicle, maximum width will be the centre line of the rear wheels, this should be constructed within 50 mm higher or lower than the original vehicle boot floor position, \*\*in addition to this 2 straight / triangulation support bars, 32mm will be allowed, if used they must end 100mm forward of the 25mm bumper bar, this may help protect components housed in this area,\*\* this is a maximum requirement, smaller sized material may be used, excess framework will be seen as ballast, which is prohibited.

Where batteries, oil or fuel tanks are fitted in the rear of the vehicle, safety should be the first

consideration, especially in the event of impact, local protection for specific components will be allowed, for example, an oil tank may have 1 bar over any fittings or the top, but only local to that item, maximum 25mm box or tube, excess material will be seen as ballast and is prohibited. The material described above, forward of the front face of the front wheels / tyres and rear of the rear face of the wheels / tyres should be of a maximum wall thickness of 3.5mm. Having discussed it, and now looked at it in some detail, there will be further discussion in relation to battery and battery box sizes, with a view to reducing sizes for the 2018 season, it seems when the rules were made, little thought was given to this. Finally the positioning of radiators in what would be the rear window area of the vehicle will be deemed as, not within the rules for class 3, the infilling of rear or rear side window apertures is prohibited and radiators must be panelled / shielded from the driver.

Other rules to affect class 3 which are common to other classes are as below.

Exhaust exit point.

After initial discussions regarding exhaust exit position, and the suggestion that exhausts had to exit behind the B pillar, it has been found that this is not practical in some cases, with this in mind the rule will remain unchanged during 2017 with further discussions to take place prior to the new rule books.

Bodyshell mounting.

All cars that have a removable bodyshell must have 4 mounting points, preferably 2 front and 2 rear, minimum 8mm size, above the bottom of the original window line, the object of this is to secure the upper part of the bodyshell in the event of an accident/roll over.

Wheel arches.

Wheel arch minimum requirements have changed, for 2017 the wheel arch must be no more than 20mm from the outside edge of the tyre, previous measurement was 50mm, this 20mm requirement must be for a measurement equal to a minimum of 25% of the tyres circumference.

Wheel arches that are broken during racing must be repaired before racing again.

Sump guards are restricted to 3mm steel or 5mm aluminium.

### **Class 4/5/6/7**

For 2017 the following already mentioned rules will apply

Exhaust exit point.

After initial discussions regarding exhaust exit position, and the suggestion that exhausts had to exit behind the B pillar, it has been found that this is not practical in some cases, with this in mind the rule will remain unchanged during 2017 with further discussions to take place prior to the new rule books.

Bodyshell mounting.

All cars that have a removable bodyshell must have 4 mounting points, preferably 2 front and 2 rear, minimum 8mm size, above the bottom of the original window line, the object of this is to secure the upper part of the bodyshell in the event of an accident/roll over.

Wheel arches.

Wheel arch minimum requirements have changed, for 2017 the wheel arch must be no more than 20mm from the outside edge of the tyre, previous measurement was 50mm, this 20mm requirement must be for a measurement equal to a minimum of 25% of the tyres circumference.

Wheel arches that are broken during racing must be repaired before racing again.

Bodyshell.

Some taller, more modern body shells will be allowed to have the minimum sill height reduced, this will be on special agreement with NASA with minimum interior heights and other requirements, further updates with new rule book.

All bodyshell types will be subject to original measurement checks, changing length, height or width of a vehicle is prohibited.

Sump guards are restricted to 3mm steel or 5mm aluminium.

**Class 8/9/10**

Engine positioning, in recent years engines have become more exposed, for 2017 all new cars built will have the engine/ gearbox situated within the chassis structure, as originally intended, the new rule books will have more details.

**Junior special.**

Upper and lower rear suspension mounting points should be fixed in one place to the chassis, the ability to adjust this fixing point, up, down, in or out is not permitted.

Sump guards are restricted to 3mm steel or 5mm aluminium.

Other important information.

Seats should be fitted safely and securely to the seat manufacturers fitting recommendations.

Seat belts should be fitted independently to the seat fixing bolts.