MSA
Governing Motor Sports in the UK
BULLETIN
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MSA SCRUTINEERS

MSA Yearbook Regulations
The principle of regulations appears not to be clear to everyone. *MSA Yearbook* sections (A), (B), (C), (D), (G), (H), (J) & (K) apply to all disciplines, while sections (E), (F) & (L) apply to certain disciplines. The discipline-specific regulations in Sections (M) to (U) apply and may modify those general regulations that apply across all disciplines. Championship regulations and event regulations may restrict further, but cannot reduce the requirements set out in the *MSA Yearbook*. As an example, in circuit racing (J) applies a maximum noise limit, using the half-metre test of 105 dB(A) for all vehicles except racing and sports racing cars. If organisers wish to tighten this by setting a maximum noise level of 100dB(A) – for example – they can write this into their championship or event regulations. What they cannot do is set a higher limit than 105dB(A). As another example, the minimum harness requirement in sprints and hill climbs for Modified Series Production Cars ((S)12) is a four-point harness as defined in (K)2.1.2. If an organiser wants to write into their regulations that all cars in that class are to be fitted as a minimum with a five-point harness as defined in (K)2.1.3 then this is acceptable. What cannot be done is to reduce the requirement to – for example – a three-point harness as defined in (K)2.1.1. Further to the latter example, if the requirement is for a four-point harness and the car has a five- or six-point harness then, the minimum requirement has been exceeded and it is therefore acceptable.

Chief Scrutineer responsibilities
(G)7.1.6 states that *"there must be a Chief Scrutineer present at all events and not less than one Scrutineer for every 45 vehicles entered for the event."* (G)7.2 states that *"the time allowed for scrutiny shall be such that no more than 10 vehicles per hour are required to be examined per Scrutineer"*. Organisers are always trying to minimise costs, but there is a reason for setting these limits and six minutes to run over a car and do the necessary paperwork is not by any means an excessive time allowance. If the car is well prepared it is acceptable, but if it is not then it can easily take more than six minutes. When setting up a team of scrutineers for an event, please ensure compliance with the published criteria.

The Chief Scrutineer is required to be in attendance throughout the event, whether it is a one-day, two-day, three-day or longer event. The only exception is in the case of force majeure through such as illness, accident or family matters. It is perfectly acceptable for the chief scrutineer to include on their team, for example for a two-day event, individuals who can only do one of the two days. There are a number of individuals who have difficulty doing Saturdays for reasons such as work commitments, and equally there are those who have commitments that make other days difficult. There is no reason at all not to allow some members of the team to not be present for the duration of the event. But remember that the chief must be present as they have overall responsibility for the scrutineering function at the event.

FIA overalls – withdrawal of homologation
We have recently received the following advice from the FIA Safety Department:

> For safety reasons, please note that the homologation of the following overall, whatever its manufacturing date, is withdrawn with immediate effect:
>
> Manufacturer: **ZEAL (PAK)**
> Model: **ZEAL RACESUIT**
> Homologation no.: **RS.226.12**
>
> As this overall can no longer be considered to comply with the standard FIA 8856-2000, its use is prohibited in all cases in which compliance with the above-mentioned standard is mandatory.

Remember that a complete and up-to-date list of protective clothing for automobile drivers homologated according to the FIA standard 8856-2000 (Technical List 27) can be downloaded from the FIA website by clicking here.

Noise testing
We covered noise testing in some detail at this year's seminars. To be clear, if the testing has been set up to use the half-metre test, then that is the test that must be used for all competitors. There is no option for a competitor prior to their vehicle being tested – or after failing the half-metre test – to submit their vehicle for a two-metre test. The reverse is equally true, in that if it is the two-metre test that is being used, there is no option to use the half-metre test.

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Impounding of helmets

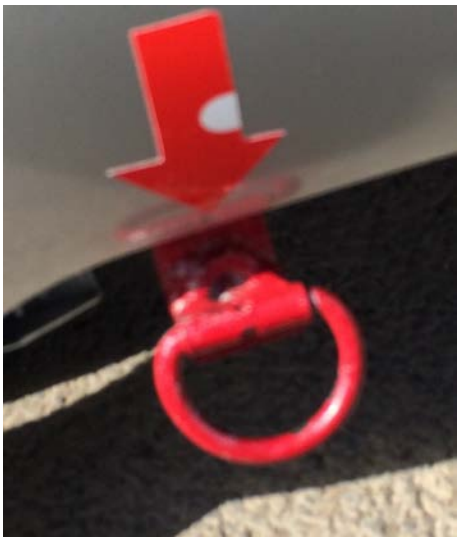
(K)10.2.1 makes specific provision for a scrutineer to impound helmets for the duration of meetings. When examining helmets please take care not to damage them, and if a helmet is retained for the duration of the meeting, please ensure it is kept in suitable secure storage. If the helmet is then collected at the end of the meeting, it is good practice to ask the competitor to check it over in your presence so that they are satisfied that it has not been damaged while in your possession. Some scrutineers issue a simple receipt when impounding a helmet, and then get the competitor to sign that receipt to confirm the helmet has been returned in the same condition as when impounded. If a helmet is impounded for being unsatisfactory then please remember to remove the MSA sticker as detailed in (K)10.2.1.

Windscreens

There was a time when every scrutineer carried a pair of Polaroid sunglasses in their pocket to easily check whether vehicle windscreens were laminated. Laminated windscreens are almost universal these days, but it cannot be assumed that all screens are laminated, particularly with cars from the ’50s and ’60s it could just be that a non-laminated screen remains fitted. Non-glass materials can be used, (J)5.20.8 refers to plastic screens and this includes polycarbonate. Remember that the same regulation requires plastic windscreens to be a minimum of 4mm thick.

Towing eyes

(Q)19.1.3 covers the requirements for towing eyes in circuit racing, stating that *“there must be substantial towing eyes securely fixed to the main structure”* and *“towing eyes must have a minimum internal diameter of 60mm. Towing eyes/towing points should be painted a contrasting bright colour (dayglo red, orange or yellow).”*



The two images above were taken at a recent meeting. The one on the left would generally be acceptable; and although the diameter was not measured it does appear to be close to 60mm. It has a flat on it, looks reasonably robust and in practical terms is easily identifiable. Importantly you can easily get a tow hook or shackle onto it.

The one on the right would also normally be generally acceptable in principle, but in reality with the car in motion the webbing strap has been forced downwards to be in contact with the road, causing abrasion. Although it is not easy to see in the image, the thickness of the webbing strap has been reduced by around 50% due to the abrasion. This is therefore not acceptable.

As clarified several times in the past, the use of webbing straps for towing eyes is perfectly acceptable if they are correctly mounted, but check that they cannot touch the ground as in the case above. Some may be tucked back into the bodywork, while some are rolled up and secured with Velcro or similar, all of which is acceptable.

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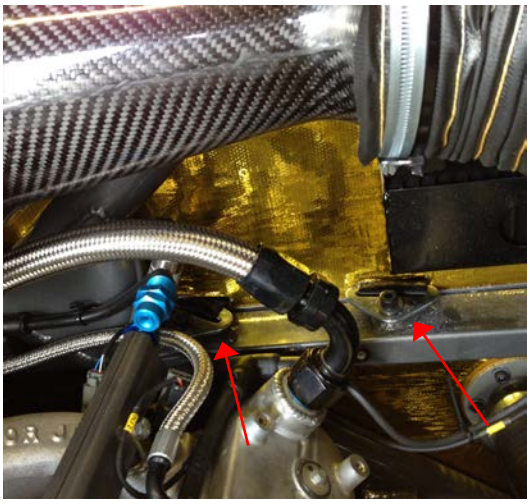
Harness issues

The image shown was captured at a recent event showing two shoulder straps merging into a single strap and mounting, in a 'Y' formation. This does not meet the specifications set out in (K)2.1.1 – 2.1.4 inclusive. Accordingly where there is a mandatory requirement for harnesses, a set-up like this is not acceptable. If there is no mandatory requirement for the vehicle to be fitted with a harness, e.g. period E or earlier (pre-1962, unless a single- or two-seat racing car, in which case it is pre-1960) then it is the competitor's own choice as to whether they use such equipment, though it is prudent to point out that such equipment would not meet the requirements in mandatory use cases.

Most scrutineers will have encountered shoulder straps being crossed over between the mounting points and the competitor's shoulders; this is usually done to try and stop the straps slipping to the side. If the mountings are a reasonable distance rearward, doing this is generally acceptable. FIA Appendix J regulations will clarify this further from 2015 onwards by stating that *"the shoulder straps may be installed crosswise symmetrically about the centre-line of the front seat"*, although in the FIA homologation requirements the harness is not subjected to any test in this configuration. If the mounts are close to the shoulders then it cannot be done, there are no dimensions given, but it is a case of using common sense and experience.

It has been reported that a competitor wanted to cross the straps across the chest area and this is not acceptable. In some designs the "tags" are angled to suit the release box. Crossing the straps like this means the webbing will have the tension concentrated on only part of the width of the webbing and a load will be applied directly on the edge of the webbing. It is almost certain that in crossing the straps one adjuster will be sandwiched between a strap and the user's body, creating a hard concentrated pressure point. No manufacturer is known to endorse that straps be crossed across the chest and the FIA homologation test does not provide for this configuration.



The images above left and centre show the result of an engine fire, where the harness shoulder straps passed through the bulkhead to effectively mount in the engine bay – as highlighted in the non-fire damaged example above right. This sort of arrangement is not that common but has existed for many years. One vehicle manufacturer is known to have secured suitable covers to isolate the mountings from the engine bay and this is fine. The arrangement as shown, with no isolation of the harness mountings, is clearly not satisfactory.

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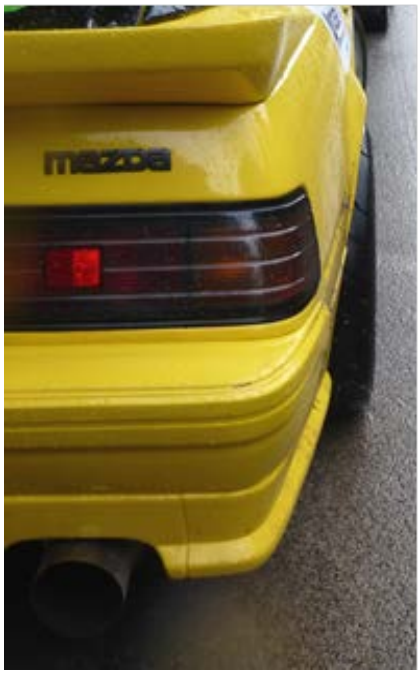
Mudguards



You may like to view these two images, bearing in mind the requirements of (J)5.2.6 which states:

"With the exception of racing cars or cars of A to D be equipped on all wheels with mudguards which present no sharp edges and cover the complete wheel (flange+rim+tyre) around an arc of 120 degrees. The minimum coverage must:

a) Be achieved with a continuous surface of rigid material within which ventilation louvres may be fitted. The tyre must not be visible when viewed from above. When viewed from the rear, the tyre must not be visible above any point 50mm or more above the axle centre line.

b) extend forward ahead of the axle line

c) extend downward behind the wheel."

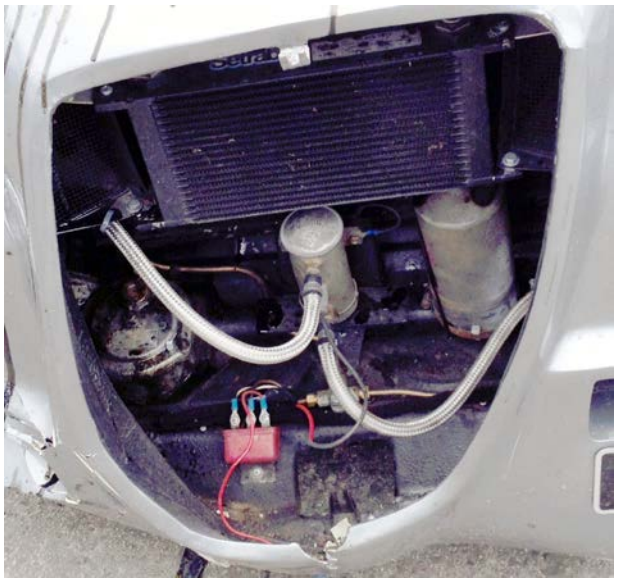
Would you have seen this?

The photo to the right was taken of a vehicle which was involved in a recent inversion incident at a circuit racing meeting.

Fortunately during the incident the vehicle did not make a full frontal impact, for had it done so the location of the fuel pump may have been significant. In reality, with the grill in place would a scrutineer necessarily have noticed the fuel pump located between the radiator and the grill?

But does it infringe any regulation? Perhaps not, for it was within the engine compartment, isolated from the cockpit.

This is clearly one of those situations where if a scrutineer does pick it up, the competitor should be advised that there are better and safer places to install a fuel pump than in a relatively exposed and unprotected location at the front of the car.



Electrical equipment

(J)5.14.3 details what electrical equipment is required, excluding racing cars. In circuit racing (Q)19.11.3 is specific in requiring all cars – with the exception of Clubmans Cars, 750 Formula, Legend Cars and cars of all types of Period A to E – to be equipped with brake lights which are directly operated by the braking system without any time delay. Please note 750 Formula is a specific formula organised by the 750 Motor Club, the exception does not include all formulae organised by 750MC. The requirement is for "brake lights" in the plural, so at least two equally disposed about the centreline of the vehicle. There are a number of championships where this requirement appears to be being ignored; this is an issue for the appropriate Championship scrutineers to address please.

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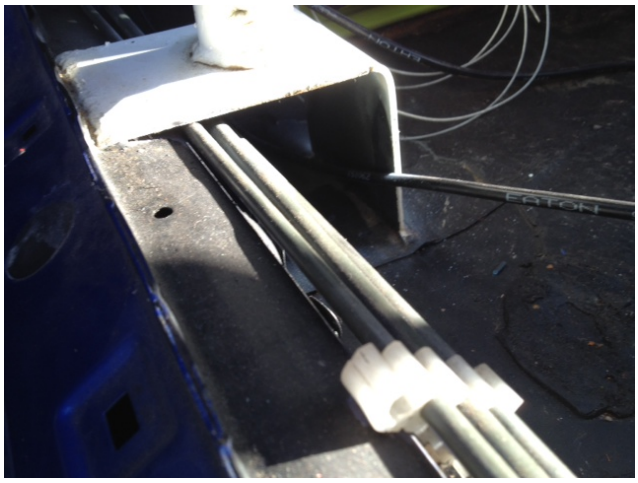
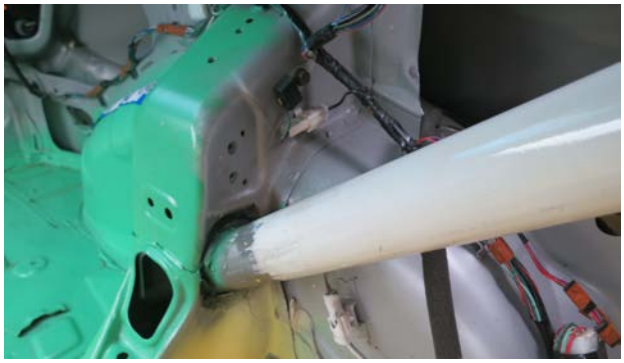
ROPS horrors

The following images came our way recently and depict how a ROPS had been installed in a Subaru. The regulations are clear in the requirement for mounting ROPS, and this clearly does not comply. If the inverted 'L'-shaped bracket – shown in the first three photos – was made of 3mm steel and boxed, and the floor area over which the load was being spread met – or bettered – minimum requirements then it could be accepted. The side plates would have to be holed and the lines protected, although it is not clear what all the lines are anyway! The reason for the longitudinal box section being cut away as shown in the final photo is not known, but would clearly compromise the structural integrity of the bodyshell. In summary, this is an unacceptable mess!




ROPS backstays

The image to the right shows the mounting of the lower end of the backstay member of a ROPS. As can clearly be seen in the photo, there is no sign of a reinforcement plate as is clearly required by (K)1.3.2.



Welding – instead of bolting – as a mounting method is acceptable, but a reinforcement plate meeting the minimum requirements is still needed!

A reminder to keep your eyes open at all times!

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Tyre List 1B Correction
Please note an immediate correction to Tyre List 1B in Section L of the 2014 *MSA Yearbook*, as follows:

MICHELIN
*TB15 (f & r) *should read* *TB5 (f & r)

Bambino class regulations
Please note that the Bambino class regulations – A1 in the *MSA Kart Race Yearbook* – have been recently reviewed and resultantly a revised document has been published. The changes are subject to a mixture of implementation dates with some effective immediately, some from 01 August 2014 and some from 01 January 2015 – as indicated. The official amendment with all of the revised regulations in full can be downloaded from the MSA website by clicking here.

450 4-stroke intake box
An additional air intake box has been added to Appendix 3 of the *MSA Kart Race Yearbook* with immediate effect. This is the *KGR 13768* intake box and it is approved specifically for the 450 4-stroke gearbox class. The official amendment detailing this can be downloaded from the MSA website by clicking here.

Exposed rear bumper threads
Please be reminded of regulation (U)17.8.9 (17.13.12 for gearbox), concerning the protection of exposed threads on rear bumper fixings. For reference the regulation is quoted below – there has been some suggestion that the regulation is not always being adhered to, so please keep an eye out for this during safety scrutineering.

> ***(U)17.8.9/17.13.12.*** *Have any studs with more than 3 threads protruding from the rear of the kart covered with appropriate nuts, caps or suitable protective cover.*

Exhaust position
Please be aware of the regulation within (U)16.15 of the current *MSA Yearbook*, in particular that the exhaust must not extend outside of the quadrilateral formed by the outside of the wheels and the front and rear bumpers (see (U)16.15.1), and that it must not exceed a height of 45cm (see (U)16.15).

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