

(K) Competitor Safety

events (including during post-event scrutineering), and at all times that crash helmets are worn on rallies (i.e. on Stages etc.).

3.3.2. Any plumbed-in extinguisher system found to be incapable of being operated will be the subject of a report to the Clerk of the Course/Stewards for possible penalty as an offence against Safety Regulations.

3.3.3. Checking for correctly 'Armed' extinguisher systems, should only be carried out by MSA Scrutineers, and/or Judges of Fact nominated for that purpose.

3.4. Hand-held extinguishers.

3.4.1. Must not be carried loose but should be retained in positive quick release brackets, secured to the vehicle by a minimum of two 6mm bolts.

3.4.2. Extinguishers with pressure gauges are recommended.

3.4.3. The tare weight of the unit must be clearly marked on the cylinder.

3.5. General.

It is recommended that all fire extinguisher bottles be securely mounted within the main structure of the vehicle. It is prohibited to mount bottles of over the medium capacity outside the main structure.

Safety Fuel Cells

4.1. The FIA approved standard for Safety Fuel Cells is FIA/Spec./F3 and FT.5. Fuel cells complying with this standard are only manufactured by authorised companies and bear the name of the company, specification, code and date of manufacture stencilled on each cell. No other cells are approved by the FIA.

4.2. Under FIA regulations the homologation expires once the cell is five years old. The validity of this homologation may be extended for a further two years if the cell is inspected and recertified by the original manufacturer.

4.3. It is recommended that any safety cell is periodically inspected on a regular basis.

Red Warning Light

5.1. A rearward facing red warning light of a minimum of 21 watts, with surface area minimum 20cm², maximum 40cm², or of 21 watts with a surface area minimum of 50cm² and with lens and reflector to EU Standards, must be located within 10cm of the centre line of the vehicle and be clearly visible from the rear. Vehicles fitted with full width bodywork may alternatively use two lights equally located about the vehicle centre line. An alternative light unit of equal or enhanced constant luminosity or LED lights that are either homologated by the FIA or comply with relevant EU Regulations may be used.

5.2. The warning light must be switched on when visibility conditions are reduced, or as detailed within championship and/or event regulations, or when so instructed by the Clerk of the Course.

Tank Fillers, Vents and Caps

6. Tank fillers and caps must not protrude beyond the bodywork or be situated within the driver/passenger compartment. The caps must have an efficient locking action to reduce the risk of opening during an accident and to ensure closing after refuelling (14.1.2). Air vents must be at least 25cm to the rear of the cockpit and must be designed to prevent the escape of fuel should the vehicle be inverted. It is recommended that a non return valve is incorporated in the vent system. The entire fuel tank area 'Licked by the open air stream' must incorporate a crushable structure as follows:

Crushable Structure

7.1. The crushable structure should be a sandwich construction based on a fire resistant core of minimum crushing strength 25lb/sq in. It is permitted to pass water pipes through this core.

7.2. The minimum thickness of the sandwich construction must be 10mm. The fore and aft fuel tank area, however, must provide for a crushable structure of at least 100mm thickness at its thickest point, the position of this widest point to be at the constructor's discretion, over a length of at least 35cm after which it may be generally reduced to 10mm.

7.3. The sandwich construction must include two sheets of 1.5mm thick aluminium sheet having a tensile strength of 14 tons/sq in and minimum elongation of 5%.

7.4. All oil tanks mounted outside the main chassis structure must be surrounded by crushable structure of minimum thickness 10mm.

External Circuit Breaker

8.1. The circuit breaker, when operated, must isolate all electrical circuits with the exception of those that operate fire extinguishers.

8.2. The triggering system for the circuit breaker on saloons should be situated at the lower part of the windscreen mounting, preferably on the driver's side or below the rear window.

8.3. On Open Cars the triggering system should be situated on the lower main hoop of the Roll-over Bar on the driver's side or at the lower part of the windscreen mounting (as above).

8.4. Alternatively on cars of Periods A to F the mounting point may be mounted approximately vertically below the line of the scuttle on the driver's side.

8.5. The triggering system location must be identified by a Red Spark on a White-edged Blue triangle (12cm base), and the 'On' and 'Off' positions clearly marked.

Overalls

9.1. Clean Flame-Resistant overalls, must be worn to cover from ankle to wrist to neck.

Acceptable standards:

9.1.1. Racing:

FIA 8856-2000

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9.1.2. Special Stage Rallies, Sprints and Hill Climbs:

FIA 8856-2000

FIA 1986 Standard

9.1.3. Karting:

As defined in U.13.3.

9.1.4. All Other Events (including overalls in accordance with Q.13.1.2):

BS6249 part 1 Index A or B (but not part C),

BSEN533

EN533:1995 Index 3

ISO 14116

FIA 8856-2000

FIA 1986 Standard.

9.1.5. For FIA Standard Overalls the homologation label will be stitched into the fabric of the garment or on a sewn in label. For International use overalls must comply with: FIA 8856-2000

9.1.6. As with any item of safety equipment, evidence of damage or excessive wear can render it unsuitable for use. In the case of overalls this could include over frequent, or incorrect, washing, broken seams or stitching and worn patches. Two piece overalls should be avoided, but if worn must overlap and provide flame resistant coverage.

9.1.7. Due to the complex nature of national test standards and variations of detailed testing it is not possible to quote 'equivalents' from foreign national standards unless they are FIA approved as detailed above.

National test standards are in the process of being superseded by European norms (CE Marks), which will provide a common standard throughout Europe.

9.1.8. Individual competitors are responsible for ensuring their own safety and that appropriate flame resistant overalls are worn when mandatory.

9.1.9. Competitors are also strongly advised to wear Flame Resistant gloves, socks, balaclavas and underwear.

Plastic shoes (such as trainers) should be avoided.

9.1.10. Specific regulations concerning Flame Resistant gloves, socks, balaclavas and underwear are published by the FIA and applicable to International events.

9.2. Exceptionally, drivers of three wheeled cars,

competing in accordance with A2.2.1 may wear ACU or FIM approved leather overalls.

9.3. When a name appears on a driver's helmet or overalls, this must be the name of the person wearing them.

Crash Helmets

10.1. Crash helmets bearing an MSA approval sticker must be worn at all times during training, practice and competition. The user must ensure that the helmet is to a standard currently specified (10.3.1), that it fits properly, is secured properly and that it is in a



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serviceable condition. It is strongly recommended that a flame resistant balaclava, helmet bib or face mask also be worn.

10.2. Total protection can never be given by any headgear, and the best of crash helmets may not entirely prevent head injury or death in a severe accident. Helmet users must understand that helmets are deliberately constructed so that the energy of a severe blow will be absorbed by the helmet and thereby partially destroy it. The damage may not be readily apparent; it is essential therefore that any helmet receiving a blow in an accident is either replaced or returned to the manufacturer for competent inspection – this of necessity must be the responsibility of the helmet user, who will have been aware of the circumstances under which the helmet was struck. It is not possible nor indeed reasonable to expect the scrutineer, in every case, to observe significant damage. Where there is any doubt about the helmet's fitness for its intended purpose then the Chief Scrutineer is empowered to remove the MSA Approval Sticker and impound the helmet for the duration of the meeting. This should be a rare occurrence since competitors must appreciate that, once a helmet has served its purpose, it is not only sensible but necessary to replace it. It is the competitor himself who must ensure that the helmet which he uses is fully fit for its purpose; it is clear that this is a small insurance to pay for one's life. The competitor also might consider that, should he survive an accident, but receive head injuries having knowingly used a previously damaged helmet, he could be placing an enormous burden of care upon his family.

10.2.1. Impounding of helmets

Case 1 Pre-Event. If the helmet does not conform with the required Standards or is in a poor or dangerous condition, the Chief Scrutineer will impound the helmet for the duration of the Meeting, removing the MSA sticker. At the close of the Meeting the helmet will be returned, as received, with the exception of the MSA sticker, to the competitor concerned.

Case 2 Accident during the Event. If the competitor is injured and the helmet is damaged, the Chief Scrutineer will impound the helmet and remove the MSA sticker then seek the advice of the Steward as to further action.

Case 3 Accident during Event and competitor evacuated to hospital with head injuries. The Chief Scrutineer will make sure that the helmet has been seen by the Chief Medical Officer, he will then impound the helmet and remove the MSA Sticker. Unless the Chief Medical Officer wishes to retain the helmet it must be despatched to the Technical Department at the MSA. Unless specifically called for by the competitor it will be disposed of after six weeks.

10.3. The competitor is reminded of the following essential criteria when buying or using his helmet:

- (a) Correct Standard.
- (b) Correct Fit.
- (c) Security.
- (d) Condition.

10.3.1. Standards. Helmets bearing one of the under mentioned 'standards' may be approved by the MSA

subject to other criteria being met. See also drawing 10.3.1.

(a) INTERNATIONAL EVENTS & ALL MSA EVENTS.

- FIA 8860-2004.
- FIA 8860-2010.
- SNELL SA2010.
- SNELL SA2005.
- SNELL SA2000*.
- SNELL SA2010.
- SNELL SAH2010.
- SFI Foundation 31.1A, 31.2A.
- BS 6658 Type A/FR**.

* May be withdrawn with effect from 01/01/15.

** May be withdrawn with effect from 01/01/16.

(b) In addition the following are acceptable for:

International and MSA National Kart Racing Events (with exception of Kart Drivers under 15 years of age, Cadet and Bambino Drivers):

- SNELL K98 and K2005
- SNELL K2010
- SNELL – FIA CMR2007
- SNELL – FIA CMS2007

Kart Drivers under 15 years of age, Cadet and Bambino Drivers. The weight of the helmet may be checked at any time during an event and must not weigh more than 1,550g:

- SNELL – FIA CMR2007
- SNELL – FIA CMS2007

Part of the approval procedure is to affix an MSA sticker to the outside of the helmet in the approximate location of the driver's right ear.

Stickers may only be affixed by selected scrutineers, by the MSA at Motor Sports House, or by selected manufacturers, after the helmet has been checked for conformity with the standard required and is considered to be in a satisfactory condition.

MSA approval stickers, for which a fee of £2.00 is charged, are printed on foil, and once individually affixed, cannot be reapplied. Note: Stickers supplied since 01/01/08 are individually numbered.

Note that helmet standards are regularly reviewed and updated, and superseded. Standards will periodically cease to be acceptable; hence an element of 'lifing' will always remain.

Helmets approved for use in all disciplines require a blue MSA sticker to be affixed. Helmets which are accepted for use in kart racing only require a green or yellow where applicable MSA sticker to be affixed. These stickers are available from issuing scrutineers.

10.3.2. Fit and Security. To ensure satisfactory fit and security of your helmet, proceed as follows:

- (a) Obtain correct size by measuring the crown of your head.
- (b) Check that there is no side-to-side movement; a helmet should be as closely fitting as possible consistent with comfort.
- (c) Tighten straps securely – the chin strap must be under tension at all times; ensure therefore that the strap cannot slip. Chin cups are prohibited.

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- (d) With head forward attempt to pull up the back of the helmet, to ensure the helmet cannot be removed in this way.
- (e) Ensure you can see clearly over each shoulder.
- (f) Make sure nothing impedes your breathing in the helmet and never cover your nose or mouth other than with a flame resistant balaclava or face mask. Helmets with life-support attachments must only be worn if they are connected to a life-support system.
- (g) Never wear a scarf, tie or other loose clothing which could come loose and possibly cause an accident.
- (h) Ensure that the visor can be opened with one gloved hand.
- (i) Satisfy yourself that the back of the helmet provides protection for your neck.
- (j) Do not buy from mail order unless you can satisfactorily carry out the above checks; return a helmet unused if it does not fit.

10.3.3. Condition and Care of Helmet

- (a) The user himself must bear the prime responsibility for ensuring that his helmet is fit for the purpose intended, since significant damage to the helmet may have been sustained without this being apparent to the scrutineer.
- (b) Anything other than minor superficial damage is likely to result in the scrutineer removing the MSA sticker and impounding the helmet for the event.

- (c) It is in everyone's interest for the competitor to buy the best helmet he can and to look after it (the best is not necessarily the most expensive). A helmet bag should always be used.
- (d) There must be no alteration to the structure of a helmet. Where a radio intercom is fitted this should only be done in accordance with the helmet manufacturer's instructions. Fitment of cameras to helmets by whatever means is not permitted unless an integral camera is provided by the helmet manufacturer and that model of helmet is approved under one of the accepted standards.
- (e) Use only a weak solution of soft soap and water to clean the interior and exterior of the helmet; do not get the interior too wet.
- (f) Some moulded plastic helmets although they meet approved standards can be seriously damaged by substances such as petrol, paint, adhesives, cleaning agents and stickers (not the MSA Stickers) – such damage may not always be apparent; however, crazing or obvious dulling of the surface finish could indicate serious structural weakening of the helmet and is likely to result in the scrutineer removing the MSA sticker and impounding the helmet for the event.
- (g) The helmet should be stored, preferably in a helmet bag, in a cool dry place away from sunlight when not in use. Do not strap the helmet to the roll cage or allow other unrestrained movement which could cause the helmet to be damaged.
- (h) A good helmet, properly cared for, is one very important link in a long chain of safety measures. Do not allow it to become the weak link. Do not rely on others. You are responsible for your own safety. Do not, through your own fault, become a grave burden to others.

10.4. HR Device

It is permitted to incorporate the use of an FIA approved HR Device fitted in accordance with FIA regulations.

Goggles and Visors

11.1. Either goggles or a visor must be worn at all times during training, practice and competing, unless in a closed vehicle.

11.2. Recommended visor and goggles standard (minimum) BS4110, BS4110:1999, BS EN 1938, European Standard 89/686/EEC.

11.3. Goggles or visors must be clear or neutral density filters.

Front Engined Cars

12. With front engine cars a propeller shaft restraint should be fitted. Either safety hooks or a rigidly fixed steel panel of not less than 18swg.



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