**REGULATION CHANGES CONSULTATION**

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<th>Committee:</th>
<th>Speed Events Committee</th>
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<td>Date of meeting:</td>
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**Section N
Existing Regulation**

\textbf{(N) 6.1.4.} Rallycross vehicles complying with specific regulations approved by the MSA.

**Proposed Regulation**

\textbf{(N)6.1.4.} Rallycross vehicles complying with specific regulations approved by the MSA. in compliance with (N)8 and issued the Rallycross Space Frame Vehicle Identity Form (RXVIF). The vehicle may not be used in competition until the Vehicle Identity Form has been validated by the MSA and returned to the vehicle owner.

**Reason:** Space Frame vehicles have been running in Rallycross under Championship Regulations. The technical aspects have been reviewed, updated, upgraded and will be required to have a more detailed inspection, the regulations now being included in MSA General Regulations.

**Implementation:** Recommended 1\textsuperscript{st} January 2015, Mandatory 1\textsuperscript{st} January 2016 (existing log booked space framed vehicles may continue until 31\textsuperscript{st} December 2015 following which they may only continue once issued with the RXVIF)
8. Rallycross Spaceframe Technical Regulations
All vehicles must comply with Section J, Rallycross Vehicles (N)6.1-6.14.3 unless where specified below:

8.1. GENERAL TECHNICAL REQUIREMENTS AND EXCEPTIONS.
8.1.1. The use of magnesium alloy sheet is not permitted. Titanium sheet may only be used for heat shields.
8.1.2. All Spaceframe cars must have an identification number stamped into a plate measuring 80mm x 20mm which must be welded to the centre of the underside of the main ‘B’ hoop.

8.2. SAFETY REQUIREMENTS.
As a minimum:
8.2.1. ROPS door bars to K Appendix 2 Drawing 12a, g or h are mandatory, on driver and passenger side.
8.2.2. Where the door bar elements of the ROPS cross, a reinforcement for the bend or junction must be fitted in all four angles. This reinforcement must be made from bent sheet metal with a U shape the thickness of which must not be less than 1.0 mm. The ends of this gusset (point E) must be situated at a distance from the top of the angle (point S) of between 2 to 4 times the outer diameter of the biggest of the tubes joined. A cut-out is permitted at the top of the angle but its radius (R) must be no greater than 1.5 times the outer diameter of the biggest of the tubes joined. The flat sides of the gusset may have a hole, the diameter of which must not be greater than the outer diameter of the biggest of the tubes joined.
8.2.3. A FIA homologated competition seat and mountings are mandatory.
8.2.4. All cars must be fitted with an extinguisher system plumbed-in for discharge into both the engine compartment and the cockpit (K3.1.2(a)).

8.3. CHASSIS and BODYWORK.
The vehicle must have the Silhouette of a Series Production Car.
8.3.1. The wheelbase and track will be as per the Series Production Car specification with a tolerance of +/-0.5%.
8.3.2. The minimum elements of the spaceframe are shown in Appendix 1 Drawings.
8.3.3. Drivers door must be of steel construction.
8.3.4. No element of the ROPS may pass through the space normally used for the front passenger, to allow driver extraction from either side of the car.
8.3.5. The floor frame is an integral part of the structure and the ‘A’ and ‘B’ main hoops must attach to it.
The floor frame must be constructed from either minimum 50mm x 2mm square box section or minimum 50mm x 2mm diameter tube material in accordance with K1.4.1. The floor must be made of either minimum 10mm composite, 1mm steel or 2mm aluminium alloy to be fixed to the top of the floor frame as defined in Drawing 1-1 floor frame.
8.3.5.1. The forward most part of the spaceframe must be at least 100mm behind the forward most part of the front bumper. (Drawing No. 2).

8.3.5.2. The rear most part of the spaceframe must be at least 100mm forward the rear most part of the rear bumper (Drawing No. 2).

8.3.6. The roof must be of either minimum 10mm composite, 1mm steel or 2mm alloy to be fixed to the top of the upper surface to protect the driver as defined in "Drawing 1-2 Main "cage""

8.3.7. The bulkheads (J5.2.1.) must extend across the full width of the spaceframe.

8.3.7.1. Bulkheads must be made of minimum 1mm steel and be welded to the spaceframe.

8.3.7.2. No part of the front bulkhead, when viewed from above, may be further back than the centre of the windscreen. (Diagram needed)

8.3.7.3. No part of the rear bulkhead must be further forward than the rearmost part of the driver’s seat.

8.3.7.4. Cars with a front engine location must be constructed so that the rearmost part of the engine is at least 25mm in front of the front bulkhead. No part of the engine may protrude through either the front or rear bulkheads (J5.2.2.).

8.3.7.5. In rear-engine cars the bulkhead must extend vertically to at least the same height as the highest part of the engine. From this point a polycarbonate window, minimum thickness 5mm may complete it, extending to the full height of the interior space as well as a horizontal cover extending to the rearmost part of the interior space (J5.2.2.).

8.3.7.6. In either case the full bulkhead must completely isolate the driver from the engine compartment. (Drawing No.4)

8.3.7.7. A similar bulkhead must isolate the engine and exhaust system from the fuel tank and driver’s cockpit (J5.2.1.).

8.3.8. Power Transmission System /Flywheel Protection

8.3.8.1. All cars having transmission systems (propeller shafts etc) passing under and/or through the cockpit must be fitted with minimum 3.5mm steel transmission tunnel to prevent driver injury in the event of a component failure, such as propeller shaft, clutch or flywheel.

8.3.8.2. The transmission tunnel frame will be fabricated from steel tubing with minimum dimensions of 25mm x 2mm and have minimum 3.5mm steel plate, welded to the exterior side of the tunnel frame. (Drawing No. 3).

8.3.8.3. This frame to be reinforced (on the drivers’ side and top of tunnel), at the rear of the gearbox and at the clutch/flywheel area, for a minimum distance of 200mm (centre lines based on the front propshaft flange and 25mm rearward from the gearbox to engine mounting face) using minimum 2.6mm steel extensively welded to the inside of the frame. Using the same centre line for 300mm minimum 1.2mm steel will be extensively welded to the outside of the tunnel. The remainder of the tunnel may be covered by minimum 1mm steel or minimum 1.5mm aluminium.
8.3.8.4. Front wheel drive, the front bulkhead must be reinforced in the same method as 8.3.8.1 – 8.3.8.2 where the flywheel and drive shafts are directly in line with the driver.

8.4. Aerodynamic Devices
8.4.1. Must not exceed the overall limits of the original bodywork dimensions (J5.2.7).
8.4.2. Must not be wider than the widest part of the car’s bodywork or higher than the highest part of the roof. 8.4.3. Within these restrictions their design is free.

8.5. Body panels
8.5.1. Door hinges must be of adequate strength.
8.5.2. Body material is free subject to 8.1.1.

8.6. ENGINE.
8.6.1. With the exception of N6.3.2., N6.3. applies.

8.7. SUSPENSION and STEERING.
8.7.1. The operating method and the design of the suspension system are free.
8.7.2. Suspension parts may not be attached to the spaceframe at those elements making up the major components of the ROPS i.e. main/front hoop and main braces.
8.7.3. The springing medium must not consist solely of bolts located through flexible bushes or mountings but may be of fluid type.
8.7.4. There must be movement of the wheels to give suspension in excess of any flexibility in the attachments.
8.7.5. Chromium plating of steel suspension members is prohibited.
8.7.6. All suspension members must be made of homogeneous metallic material.

8.8. FUEL TANK/FUEL
In accordance with J5.13.
8.8.1. No part of the fuel tank to be located less than 300mm from the bodyshell in both lateral and longitudinal directions, and must be outside the driver’s compartment, and be separated from the driver’s compartment by a metal firewall or container, both of which must be flameproof and liquid-proof. The remainder of the system will be as per J5.13. K4 is recommended.
8.8.2. Fuel fillers passing through the cockpit must be isolated and fitted with non-return valves at the fuel tank.

8.9. EXHAUST and SILENCING
8.9.1. The orifices of the exhaust pipes must be between 100mm and 450mm above the ground.
8.9.2. Exhaust gas may only exit at the end of the exhaust system.
8.9.3. All exhaust gasses including wastegate outlet must pass through the main exhaust system.
8.9.4. No part of the chassis may be used to evacuate exhaust gases.
Appendix 1 Drawings

These diagrams are draft and will need to be updated and replaced prior to inclusion in the Yearbook.