2019 QMA National Meeting – Safety Presentation
Agenda

• SFI 16.1 vs 16.2 rating
• Karting & Other Racing Specs
• Car Safety Inspection
  • How often, car condition during inspection, prep prior to safety
• Seat Belt Mounting Positions
• Engine Compartment Clarity
  • Flywheel access, engine gear sprocket access
Adult vs Child Safety Belts

SFI 16.1 vs 16.2 rating

- 16.1 rating is current rulebook specification for all classes
- Throughout 2019 belts were observed across QMA at both Local, Regional and National events
- It quickly became obvious the vast majority of belts currently in use are rated SFI 16.2
- Racing Safety Belt Providers state that the 16.2 belt is the youth version of the 16.1 belt and intended for youth MASS & youth SPEEDS
- Mike Hurst, Technical Manager at SFI Foundation was consulted to get a clear understanding
Adult vs Child Safety Belts

SFI 16.1 vs 16.2 rating cont....

- 16.2 belts were tested to withstand the following breaking strength
  - Lap/Shoulder Belt Breaking Strength = 4500 lbs
  - Anti-submarine Strap = 1500 lbs
  - Cross Strap = 200 lbs
- 16.1 belts were tested to withstand the following breaking strength
  - Lap/Shoulder Belt Breaking Strength = 6300 lbs
  - Anti-submarine Strap = 1500 lbs
  - Cross Strap = 200 lbs

- IMPORTANT –
- Belt testing is conducted using a formula that factors Driver MASS & Car Speed
- SFI ratings have a safety net built into them to allow for variables such as uneven loading, wear, deterioration, excess speed, etc.
Adult vs Child Safety Belts

SFI 16.1 vs 16.2 rating cont.....

• 16.2 belts were tested with a 100 lb max weight driver in mind – this is the benchmark for the “youth” designation
• 16.2 belts were never intended to be used on drivers over 100 lbs and are not supported by SFI to do so

Conclusion

• We must amend the current rulebook and safety sheet to draw a clear distinction between SFI 16.1 and SFI 16.2
• Drivers over 100 lbs will be required to utilize an SFI 16.1 seat belt commencing Jan 1, 2020
• An exception will be written to allow drivers under 100 lbs to also utilize SFI 16.2 belts commencing Jan 1, 2020
• 16.1 belts are approx. $20-30 USD more in cost than SFI 16.2 belts
Specification Information

Karting & Other Racing Specs

• At 2019 Grands events several families showed up with Karting equipment that did not meet our QMA standards – let’s look at the helmet specs to gain a better understanding.

• Snell, for instance, uses several different designations in their ratings. “C” is childrens, “K” is Karting, “M” is motorcycle and “SA” is Special Applications.

• Helmets are tested for 1) frontal impact resistance, 2) side impact resistance, 3) flame resistance, 4) visor puncture, 5) helmet puncture, 6) positional stability, 7) dynamic retention and 8) roll off.

• Helmets are also designed differently for certain specs. (ie. field of view, space inside shell for padding, theaded inserts, etc)

• What spec we utilize matters! For example - The SA standard requires flammability test while the M and K standards do not.
Specification Information

SFI Specs

• QMA has elected to utilize one Standards Organization (SFI) to remain consistent in its safety regulation – SFI has proved to be responsive and informative to all inquiries and is highly recognized in all forms of racing

• This applies to all our safety gear and not just helmets as we have discussed in our examples

• In certain situations such as the helmet spec, another spec is equivalent (ie. SA2015 vs SFI 24.1) and we specified that either will suffice

Conclusion

• At this time we will not be accepting other standards outside what our rulebook outlines – please ensure this is clearly communicated to our members so they make the correct racing gear purchases
Safety Inspection Consistency

Handler Safety Prep

• Handlers should ensure they have filled out their safety sheets to identify the child

• Gear should be preinspected so no surprises impact your race day

Race Readiness

• Cars should be race ready from an assembly point of view so loose components don’t interfere with inspection

Frequency

• Inspections are intended to verify cars are ready and that usage and wear and other factors haven’t compromised their safety

Conclusion

• QMA standard to be safety inspection before each race event
Seat Belt Mounting

Seat Belt Mounting Points

• Seat belts are subject to damage from various sources including UV Rays, accident deformation and physical damage from contact

• All seat belt mounting locations must ensure the seat belts are NOT exposed to physical damage

• Rulebook requires they cannot pass through the firewall so IF seat belt mounting locations are outside of the normal cockpit locations they MUST be fully contained in body panels so not to expose them to damage

Conclusion

• These exceptions must be approved by National Safety via an email complete with pictures
Engine Compartment Clarification

Protective Intent

• Engine compartment side panels are intended to limit inadvertent access to moving components; specifically engine flywheel and engine gear

Proposed Change

• Car constructors will understand that a side panel in the engine compartment must not allow for an average adult fist (size of a softball) to be inserted into the moving engine gear or flywheel

• Safety sheet will be updated to reflect clarification
Training

- Club safety officers reached out many times in 2019 to get clarity on the application of safety rules.
- There is a clear need for training so we can achieve consistency and move closer towards the application of rules rather than their interpretation.
- Suggest a 2-step approach:
  - Training video(s) on how to perform safety with clear example of how to apply verbiage on our inspection form.
  - Quarterly Skype Meeting to review what is working and what needs reform so we can utilize that feedback to generate future amendments.
Questions?

“Thank you to everyone for taking the time to hear the presentation and provide their feedback!”