

## Quick reference 2017 changes to rules

### RULES OF EMPHISIS FOR 2017

*All rules are important and must be followed. Having said that there have been teams allowed to compete in the past with cars that do not meet the intent of the rules for the MTEEA Supermileage challenge. This program is under new leadership. Just because a car has competed in the past will not guarantee that the design is legal and may not be allowed to compete this year with out being fixed. Please ensure that your car(s) completely meet the rules. If you have questions please ask with pictures mteasupermileage@gmail.com*

1. Roll bar being strong enough and in the correct position
2. Firewall completely separating driver from fuel bottle/ motor area
3. Fuel bottle must be mounted below the roll bar and completely behind firewall.
4. Body and frame stopping accidental contact to the wheels and ground

### Changed and clarified rules for 2017

#### ***I.B.1. STOCK CLASS***

**e) Engine shroud and recoil must remain in stock position and in working order.**

Rational: this is a stock class why are teams taking the shroud and recoil off and still going through tech inspection

#### ***I.B.6. ELECTRIC VEHICLE CLASS***

**h) Power consumption will be measured by a Cycle Analyst V2 wattmeter and stand-alone shunt (model CA-SA). This device is used to measure voltage and current and display Killowatt hours of electrical energy used. Each competitor will be required to purchase and install this shunt between the battery and motor controller. Current flows through the shunt rather than the meter itself and is a safer alternative. The wattmeter can be purchased through the competition committee or online at <http://www.ebikes.ca/shop/ebike-parts/cycle-analysts.html>. They currently cost approximately \$124.**

**i)**

**j) No E-meters will be allowed in the cockpit or within reach of the driver**

**k) Required connection diagram is in the technical documents area. Please ensure that you have connected the wattmeter correctly prior to technical inspection.**

Rational: Brought up by several committee members and in the survey. If you want the read out capabilities make sure the driver cannot reset the switch

## ***I.C. Maneuverability/ Steering***

1. Rear wheel steering cars are not permitted
2. Steering controls must be operated by hand. (Foot operated steering is not allowed)
3. Each front wheel must have its own pivot 8 inches or less from the centerline of the rim.
  - A. No solid front axels with a single pivot or hay wagon style steering

## ***II.A. Kill Switches***

1. All kill switches must be locking E-stop pushbutton with a twist release, or toggle type with a minimum of a 1/2" metal paddle. Plastic switches, doorbell type, or other momentary action switch style will not be allowed.

Rational: I have asked for an exemption for the last 2 years regarding this rule. I will not take a stronger safer switch off my car. I will not ask to make this a requirement. My team handed out at least 9 toggle switches this year. How many spares do you bring?

## ***II.B. Roll cages and body panels***

1. Roll cages are required. They must be substantial (able to hold a 150 pound static load) and prevent accidental contact between the ground and the driver's arms & legs. If vehicle is a frame covered with shrink wrap, frame must be first point of contact in case of a roll over.

Interpretation by committee:

The roll bar must extend over the drivers head. There must be a minimum of 2" of clearance between the helmet and the roll bar with the driver seated in the driving position. Roll bar must be of substantial material and integrated into the frame system of the vehicle. **If this rule is broken while on track the driver and run will be disqualified, the team will have to fix the issue prior to being allowed back on the track.**

Rational: this is the most contested rule in the competition. In my opinion the EP cars were made less safe by how they were asked to modify them. Again \_\_\_ of \_\_\_ cars I have pictures of have major questions on the roll bar there will be a tech tips video clarifying this rule.

## **II.D. Driver Attire**

1. **Close-toed** shoes are required to be worn during the performance run. Sandals/**flip-flops** are not allowed.
2. Drivers must be wearing minimum standard short sleeved shirt (**unaltered**) and shorts.
  - a. Shorts or skirts worn can be no more than four inches (4") above the mid knee.
  - b. Muscle shirts, sleeveless or those torn under the arms will not be allowed.

Rational: The clothing rules were requested by Nate and have been clarified with my schools dress code. He felt uncomfortable doing safety checks at the line.

## **II.E. Fuel and Lubrication Systems**

1. **The entire fuel bottle must be mounted below the roll bar and behind the vehicle firewall.**

Rational: 16 of 40 cars I had pictures of had the fuel bottle above the roll bar or above the firewall (I plan to have a tech tip video on this topic)

## **II.L. Visibility**

1. **The Driver must have access to a field of visibility straight ahead and to 90° on each side of the vehicle. Movement of the Driver's head within the confines of the vehicle body to achieve a complete arc of vision is allowed**
2. **Will be tested with geometric shape identification at approximately 30° intervals at 15 feet**

Rational: Eden Prairie asked for a clarified rule

## **II.P. Vehicle Marker Lights**

1. **Lights must be visible from both the front and the rear of the car.**
2. **May need more than one light to meet this requirement**
3. **Lights pointed straight up will not be allowed.**

Rational: Adding the rule that was changed in February, clarifying the description and fixing the view points.

## **II.Q. Chain and Power Train Guards**

1. All chains and sprockets must be guarded to keep driver and crew from accidental contact.
2. Guards must be fabricated from a substantial material. 032. Aluminum or stronger.

Rational: This is in the tech inspection packet but not in the rules. Many new teams are fixing this issue at the track

### Proposed Rule changes and additions

1. The committee chair may only grant an appeal for a team that proves the spirit of the rules are being met.
  - A. A jury of no less than 3 comp committee members and the inspector of question will hear appeals.
  - B. Rulings are final, and will be made with safety and competitive fairness in mind.
  - C. 3 team members may present their case. The advisor may be present but may not speak.

Rational: 2 committee member teams had issues that could have been easily resolved if there were a process in place. Several of our advisors complained about fairness and consistency this could streamline the processes