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Testimony of Joel Sheltroun, Arcimoto Governmental Affairs

In Opposition of HB 1043 as

Honorable Chair and Members of Transportation and Energy Committee:

Introduction:

My name is Joel Sheltroun and I am a former State Representative from MI. I have been working in the Three Wheel transportation sector nationally and with Congress since 2012 and have provided language for the original autocycle definition sponsored by former Representative Max Tyler in 2015.

Arcimoto is a three wheel, front wheel drive electric vehicle manufactured in Eugene, OR. Arcimoto's Safety Management System consists of:

- 1) Roll cage/Roof meeting FMVSS 216a (automotive roof crush)
- 2) A 5 point lap and shoulder harness belt system designed to hold operator and passenger securely in the vehicle
- 3) Energy-Absorbing zones to lessen impact of a collision
- 4) A foot pedal braking system that brakes all three wheels simultaneously
- 5) Anti-Dive Optimization

As I understand, the purpose of HB 1043 is to separate autocycles from the classification of motorcycles. To accomplish this, the bill strikes "motorcycle" from the autocycle definition and changes language regarding steering control and front wheels. The result of these changes means that Arcimoto would no longer be classified as an autocycle, and would lose the motorcycle license exemption and helmet exemption provided by current statute.

Motorcycle License Exemption should continue for the Arcimoto :

- 1) Front wheel Drive Arcimoto handles far more like an automobile than a motorcycle
- 2) Motorcycle riding skills are required such as leaning into the curve, or balancing requirements
- 3) The Arcimoto does not have a tendency to “fishtail” on acceleration like motorcycles do
- 4) The Arcimoto’s front wheel drive pulls around a curve instead of pushing into it
- 5) There is no shifting or clutching required
- 6) The unnecessary requirement of a special endorsement or operators license for the Arcimoto Autocycle creates an unfair marketing advantage for other autocycles.
- 7) Requiring the M license does not increase protection for the public, rather the requirement adds unnecessary red tape for Colorado citizens.

Helmet Exemption should continue for the Arcimoto:

- 1) The Arcimoto lap and shoulder safety belt system holds the occupants securely against the seatback, whereas the head (with the extra 3-4lbs helmet weight) moves violently forward in a frontal collision. This action can easily cause severe whiplash, paralysis or even death from a basal skull fracture. NASCAR Safety Engineers believe the combination of lap and shoulder belts with helmet use can cause death in a collision at speeds “as slow as 30 MPH if stopping quickly enough”
- 2) Arcimoto’s harness belt system and roll cage roof meeting federal automotive roof crush requirements are sufficient for any helmet exemption.

Arcimoto will support HB 1043 if amended to allow for a commonly accepted autocycle definition already in use and consistent with a number of states.

The proposed, following amendment will not create a loophole allowing true motorcycles to be classified as autocycles, nor will it eliminate any motor vehicles currently considered autocycles.

With the innovation of autonomous vehicles, different steering systems are coming forth. For example, the Tesla Model S is now using a steering “yoke” Arcimoto’s autonomous version is experimenting with a “bar” for emergency steering.

Arcimoto’s following suggested changes to HB 1043 will provide different classification of motorcycle and autocycle achieving the goal of separation:

Definitions 42-1-102

42-1-102 should read as follows:

(7.5) (a) “Autocycle” means a motor vehicle that has three wheels in contact with the ground, which is partially or fully enclosed, that is equipped with safety belts for all occupants that constitute a safety belt system, as defined in section 42-4-237 (1) (b).

(This language is cleaner and less confusing. The mention of handlebars their connection to front wheels is not used in any state definition to my knowledge. Since motorcycles are not “partially or fully enclosed” and motorcycles are not equipped with safety belts,” there is no reason to provide the handlebar and front wheel language to separate the two categories.)

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Strike Line 7 and 8 to read as follows:

(55) (a) “Motorcycle” a motor vehicle that:

(I) Has a seat or saddle the rider sits astride

(II) Is designed to travel on not more than three wheels in contact with the ground.

“MOTORCYCLE “does not include a farm tractor, low-speed electric vehicle, AUTOCYCLE or low-power scooter.

(The above re-write of (55) (a) represents what most states use for the definition of motorcycle. The re-write of Line 12 (b) is much cleaner and clearly accomplishes the goal of separation of motorcycles and autocycles.)

Repectfully Submitted,

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