ISBD Legacy Division: Rules Update & FAQ's **Rev New: Jan 2, 2018**

Your ISBD Legacy Committee is interested in sharing clarifying FAQs with our community of builders as we support each other in bringing forth this exciting new STEM-driven Division. The following material was gathered via email, our first call-in builder forum on Dec 11, and subsequent meetings of our Committee. We plan to hold additional call-in meetings to answer builder questions and updates to this FAQ document will be posted here as they unfold.

Please note, it is the stated objective of our Committee to minimize rule changes to the absolute greatest degree possible due to the effect they may have on cars already built or in-work. We must however balance this with the need to ensure the cars are both buildable and safe. Thank you for your support and patience.

Rules Update – Effective Immediately

Issue with inner Airfoil Pins and Body Fillets: It has come to our attention that when the minimum car size was widened over the previous classes to accommodate larger drivers, it pushed the sides of the body out to the point where there may no longer be room to have the inboard pins engage full depth in the airfoils, to access airfoil pins or fasteners for removal, or leave space for any sort of reasonable body fillet. To address this issue, the following change will be made affecting the Axle Rules (see Sec 3, Pg 7) and Body Fillet Rules (see Sec 9, Pg 19):

An allowance will be made for two new optional airfoil mounting holes drilled into each axle (front and rear) of 3/16" maximum diameter, located no more than 3" outboard of the existing inner airfoil holes, and centered on the axle thickness. The body fillet rules currently state the fillets cannot extend past the inner airfoil mounting holes. Fillets will now be allowed to extend as far outward as the two new inner airfoil mounting holes. This change will provide builders additional space to fit their pins and accommodate a reasonable variety of body shapes and fillet styles.

Questions and Clarifications

1) Larger bushings or washers on custom axle mounts: The custom Axle Mount section (Sec 7, Pg 16) allow the use of larger diameter fasteners thru the plate(s) or other components (except for the Kingpin, which must remain a ¼-28 Grade 8 Bolt). The rule specifically describes longer and larger diameter bolts, but does not specify matching larger diameter nuts, washers, or bushings. The allowance for a matching nut was obviously implied, but the washer and bushing question was not clearly addressed.

To clarify, larger inner diameter washers (with a max outer diameter of 2") and larger inner diameter bushings similar in design to the ISBD ¼" bushings will be allowed. This will prevent builders from having to drill out existing ISBD washers or bushings. I should also be noted, that shorter bolts may be purchased as an alternative to cutting down existing bolts.

2) Elevator Bolts, T-Nuts, or Washers under the car: The sections on Floorboard (Sec 4, Pg 8), Axle Mounts (Sec 7, Pg 15), and Finishes (Sec 6, Pg 14) allow Elevator Bolts, T-Nuts, or Washers under the car to be recessed and/or covered with fiberglass. The holes allowing bolts to be removed can also be taped over. Builders may want to cover these fasteners in particular to a depth that the bolt head is flush, leaving a smaller diameter hole for the bolt head to later be taped over.

This is acceptable. On the telecon, a question was asked as to whether this material needed to be clear if within the minimum flat area under the car that requires only clear finishes (including fiberglass) to facilitate inspection of the floorboard. In subsequent discussion it was decided that the use of non-clear filler (e.g. Bondo) over the head of the fastener or washer would be acceptable, but this filler must be confined to the immediate area of the fastener head. It should be obvious from inspection above or below that the filler is covering a fastener used to affix an element to the car.

3) Nose and Tail Extensions: Questions have come up around what these may be constructed from. The Floorboard rules (Sec 4, Pg 8) suggest using pieces of the floorboard to extend the board itself, and specify how these may be attached/bonded to the floorboard using plywood overlapping no more than 1".

To clarify nosecones or tails of other materials like fiberglass, foam, or wood are acceptable and may be bonded to the body shell as part of wrapping the car. We don't want to see these floorboard or body extensions being made from large blocks of metal, which would be considered a weight and therefore need to conform to all the other weight rules in Sec 10. It should also be noted for safety that sharp noses that might create a hazard will not be allowed. This is likely a non-issue as the min front cross-section essentially prevents a very sharp nose.

4) Wheel Types & Ground Clearance: Questions have been asked about the possibility of running these cars on wheels other than Z-Glas and the possible effect on minimum ground clearance.

As stated in the Wheel rules (Sec 11, Pg 21) assume all measurements including weight and ground clearance will be made on ISBD Z-Glas Wheels. Subsequent to the Dec 11 telecon, a decision was made to run the 2019 Legacy World Championship on the new Z-Glas Wheel Bank being prepared for use in the Challenge Races.

5) Steering Pulley Location: The Steering rules (Sec 8, Pg 18) state the cables must be routed around a pulley on each side of the car, immediately before exiting the car. A question arose around whether these had to be immediately inboard of the body shell or nailer or could be moved further inboard to allow the elevator bolt to clear any radius on the floorboard.

It is acceptable to locate these further inboard as needed, assuming all other rules in this section are satisfied.

8) Axle Mount Clarification #1: The Axle Mount rules (Sec 7, Pg 16-17) state that designs allowing the axle position or elevation to change during the race are not allowed. This rule was meant to preclude movable mechanisms that could either lower the car or change the wheelbase while under way.

Based on several discussions, we would like to clarify that ordinary flexibility in metal axle mounting components, axles, and fasteners is allowable, and does not constitute a gross change in axle position.

9) Axle Mount Clarification #2: The Axle Mount rules (Sec 7, Pg 15-16) state the stamps on both the Axle Mounting Plates and cut sections of Axle Stock in contact with the Axle shall have the ISBD Stamps visible.

Ideally these should be visible in the built-up axle mount, but if necessary is will be acceptable to have all or a portion of the stamp covered when assembled, as long as the stamps can be inspected upon further disassembly of the mount. Mounts may be disassembled as needed for inspection.

10) Steering Assembly Painting: The Steering rules (Sec 8, Pg 18) allow minor modification to be made to the standard Steering & Brake Assemblies. A question arose as to whether these could be re-painted.

It is allowable to re-touch or re-spray the steering assembly, provided paint of the same OSHA "Safety Blue" color (aka Royal Blue) color is used.

11) Clarification on Front Control Location: The Car Dimensional rules (Sec 3, Pg 5) and Fig. 1 describe where the front minimum width dimension will be taken. It references taking the measurement above the axle, which confused at least one builder.

To clarify, the front control location will <u>always</u> be taken at a location 10" back from the nose, regardless of axle position. While the axle (kingpin C/L) may be located anywhere from 7" to 13" from the nose, the minimum body width will be measured 10" from the nose, at a level on the body 2" above the level of the front axle top surface, regardless of where the axle is located. This was done, so inspectors would not be trying to measure width at a location where an airfoil/body fillet may interfere.