

AGRICULTURAL MECHANICS TRAILER BUILD-OFF CONTEST

Superintendent – Dr. Curtis Langley – Hico, TX
Assistant Superintendent – Mr. Don Henson – Marshall, TX
Assistant Superintendent – Mr. Chase Kizziah – Richmond, TX

Thursday, October 24 – 288 Pavilion, 11645 Almeda Rd, Houston, TX 77045

Equipment Dropoff:	Oct 23 rd from 4pm – 10pm
Check-in Deadline:	6:30 a.m. ALL TEAMS MUST BE CHECKED IN
Safety Meeting:	7 a.m.
Contest Starts:	8 a.m.
Lunch:	Provided for teams and advisors
Contest Ends:	4 p.m.
Awards	1.5hrs after completion of contest

Purpose of the Agricultural Mechanics Project Show

1. To provide an opportunity for 4-H and FFA members to demonstrate real-world metal fabrication skills.
2. To promote the development of skills in agricultural mechanics through competition.
3. To recognize group accomplishments in the area of agricultural mechanics.
4. To provide an opportunity for public appreciation of this important phase of 4-H and FFA Youth Programs.

Special Rules for HLSR Trailer Build-Off Contest

1. **Rules:** This contest is subject to the Houston Livestock Show General Rules and Regulations, Junior Show Rules, and Regulations, and to the Special Rules of this section. Where Special Rules conflict with other rules, Special Rules prevail.
2. **Eligible Entries:** Entries in this division are limited to TX FFA and 4-H members. Each team is allowed up to four team members. Team members must be from the same TX FFA Chapter or 4-H Club.
3. **Maximum Entries:** Entries are limited to the first 20 teams that register through the Houston Livestock Show and Rodeo website. Each Chapter or County will be eligible for one entry into the trailer build-off contest.
4. **Staging and Arrival:** All teams must arrive to the 288 pavilion and check in prior to the safety meeting. Tools and equipment will be placed upon arrival and check-in. Teams have the option of dropping off the equipment the evening before the contest. Overnight security will be provided.
5. **Tools and Equipment:** Trailers will be built using the SMAW Welding process. Each team should supply the appropriate welding, cutting, and fabrication tools to complete the building of a small utility trailer. No tools will be provided by HLSR officials. Examples of tools a team should supply: Oxy-fuel cutting apparatuses, angle grinders, hand tools, levels, clamps, sawhorses, jack stands, miter saw, etc. Cordless tools are allowed and preferred when feasible. All tools must have appropriate guarding and be used in the intended manner. No thin abrasive cut-off wheels will be allowed on hand-held grinders. Cut-off wheels will need to be of the metal type similar to Lenox diamond edge wheel. All tools and equipment must be contained inside the designated work and equipment space.
6. **Welding Process:** Trailers will be constructed using team provided SMAW welding equipment. Multiple welding machines are allowed provided they are in the confines of the work and equipment space for each team. A team may use the electrode of their choice. The following electrodes will be provided, 3/32"-7018, 1/8" 6010, 1/8"-7018. If you wish to use a different electrode, those will need to be provided by the team.

7. **Trailer construction:** Trailers will be constructed using typical structural materials such as angle iron, square or rectangle tube, pipe, channel iron, flat plate, etc. Appropriate tools will need to be on hand to work with these types of materials.
8. **Safety Meeting:** A safety meeting will be held the morning of the contest before any work begins. All team members and advisors must attend the safety meeting.
9. **Contest Time:** The contest will have a construction time duration of 8 hours. The contest will start at the conclusion of the safety meeting. Contest time will end when a team returns the HLSR issued trailer plans to a contest official, or 8 hours after the start time.
10. **Construction:** During construction, only team members and HLSR officials are allowed in the “hot” work area. Teams will be allowed 15 minutes to consult with their advisor once the build-off begins. This time can be used at any point during the day. Construction will begin after the safety meeting and will conclude 8 hours later.
11. **Advisors:** An advisor for each team must be present throughout the day. Advisors are welcome to observe their team from the public viewing area, but advisors are not allowed to enter the work zone outside of the 15-minute consultation time. Repeated coaching from the fence will result in time penalties, and/or disqualification.
12. **Material Provided:** All materials will be provided for trailer construction. Material will be pre-cut; however some final trimming or fitting may be required. A cut list and detailed plans will be provided for each team. If there is a discrepancy of the parts provided teams must let HLSR officials know within 30 minutes of the start of construction. Only material provided should be used on the trailer, limited extra material will be available for recuts if a team scraps a piece.
13. **Evaluation:** Teams will be evaluated on typical industry safety procedures for metal working. Appropriate PPE must be used at all times by those in the work zone. Typical PPE would include, but not limited to (gloves, safety glasses, cotton clothing, face shields, closed toe shoes, etc.). Additionally, site cleanliness and teamwork will also be evaluated throughout the day. At the conclusion of the trailer construction teams will be evaluated on specific criteria such as weld quality, ability to follow design plans, placement of materials, squareness, etc. Teams completing the contest in a timely manner will have the opportunity to score additional points.
14. **Loadout:** All teams must provide a way to transport their trailer home. HLSR will provide loading equipment.
15. **HLSR Ag Mechanics Project Show:** Trailers built during the build off will be eligible for entry in the following year HLSR Ag Mechanics Project Show. All trailers returning must meet the HLSR Ag Mechanics Project show rules. All trailers for the build off will be entered into a dedicated class. Each trailer is expected to have minimum modifications to the structure. Paint, flooring, lights, etc. will need to be installed prior to the Ag Mech Project Show.