

2011 Thumb Lawnmower Racing Rules

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These rules are the same at every event that is being run.

I. DRIVER ELIGIBILITY

- A. No driver under 18 years old.
- B. No exceptions.

II. DRIVER SAFETY EQUIPMENT

- A. Every driver must wear an automobile racing or motorcycle-type **full face helmet** approved by the U.S. Department of Transportation of the Snell Foundation.
- B. The helmet must fit snugly and be securely buckled when driver is on the track. Long hair must be kept tucked inside the helmet.
- C. Goggles or a face shield are required. Glasses are not sufficient.
- D. Every driver must wear long pants, long-sleeved shirt or jacket, full-finger gloves and leather over-the-ankle footwear on the track. Motorcycle leathers or anti-abrasion karting suits are highly recommended. No loose clothing (un-tucked or un-buttoned shirts, etc).
- E. An approved, racing neck support is **MANDATORY**

III. MOWER ELIGIBILITY

- A. Events are open to all self-propelled rotary or reel type lawn mowers: the main provision being that the mower must originally have been designed, mass produced, and sold commercially through a dealer network to mow residential lawns. It must remain suitable for lawn cutting, apart from the modifications permitted below or in the supplementary regulations of an event.
- B. The generally accepted category is riding mowers and lawn tractors with rear tires 20 inches diameter and under. Mowers from England (with trailer seats) may compete. Grass catchers are not permitted. **See class rules for engine size limits.**
- C. Organizers reserve the right to reject at any time any mower, which in their opinion represents an attempt to defeat the spirit of these Regulations, even though it complies with the letter of them.

IV. TECHNICAL INSPECTION

- A. Every mower entered in any event must be approved for competition by Technical Inspection before practicing or racing at any event. A **Safety Tech/Build Tech** sticker will be issued at each race. Any mower may be re-inspected at any time at the discretion of the Race Day Chief Steward or any Staff-level Tech Inspector or the event. If found to

be in noncompliance with these Regulations, any mower may be removed from competition.

- B. The Race Day Chief Steward shall have the right to remove from competition at any time any driver, crew member or guest in the paddock who does not comply with these Regulations, who fails Technical Inspection or who, in the Race Day Chief Steward's sole discretion, is exhibiting behavior which is dangerous to participants or spectators.
- C. *If, after reading these Regulations you need a clarification, you are encouraged to contact one of the Staff members PRIOR TO RACE DAY. We want everyone to race, BUT we are creating fairness, safety, consistency and enforcement of rules.*
Competitors must be aware that Clarifications are offered in good faith and do not afford specific mowers protection from subsequent protest.

V. GENERAL MOWER REQUIREMENTS

NOTICE

These general requirements apply to ALL racing classes. Any EXCEPTIONS to these requirements are listed in the individual class build rules.

- A. **CUTTING BLADES MUST BE REMOVED COMPLETELY FROM ALL MOWERS. ALL MOWERS MUST HAVE A CUTTING DECK SECURELY MOUNTED IN THE STOCK POSITION, WITH A MINIMUM OF 2.5" GROUND CLEARANCE UNDER THE LOWEST POINT OF THE DECK.**
- B. **No overhead cam engines allowed except in the stock class. No liquid cooled engines in any class.**
- C. All non-stock mowers MUST be equipped with an automatic throttle closing device. Stock mowers MAY be equipped if desired.
- D. All mowers must be equipped with a kill switch, which will turn off the ignition if the driver leaves the mower. Non-stock mowers shall use a tether, mechanically attached to mower and driver. Velcro is **not** acceptable. Pressure switches are not allowed. Kill switch must remain in closed position (engine not running) until driver mounts mower. **The ignition interrupter kill switch and cap/prong must be commercially available for racing type vehicles such as jet skis, snowmobiles, 4-wheelers etc. Magnetic or any other form of homemade switch is not allowed.**
- E. Mower brakes must be in good condition, easily operated and operating on at least two wheels.
- F. Brakes may be improved in any way
- G. Throttle and brake controls may be relocated.
- H. **FRAME:** Discrete strengthening is allowed. **Front and rear axles must use original frame as primary mounting point.**
- I. Mowers must be free of projections, which could injure the driver or a competitor, or damage other mower. No axle or wheel mounting bolts may protrude beyond the face of the tire sidewall.
- J. Mowers must be safe and complete, all parts and panels in place, with no missing nuts, bolts, cotter keys, etc.
- K. All exposed chains and sprockets must be fitted with metal guards, which will direct a broken chain downward.

- L. Mowers must be neat and clean, with paint in new or very good condition. No excess dirt, oil, grease, rust or primer. Sponsor graphics must not interfere with mower's racing numbers or class letters.
- M. ***All mowers that do not have the top of the engine completely covered by the hood must have the flywheel covered by either the recoil housing, the stock wire housing or racer made over.***
- N. Race numbers should be a minimum of 5" high and of a sharply contrasting color from their background, and should be visible from all four sides of the mower.
- O. **All** positively charged terminals must be insulated with a cover or heavy tape, and battery must be well secured.
- P. No offset or stagger. Body must be mounted in the center of the wheels. Tires must match in size per axle. Lawn mower seats only, in the stock location, no lower than the tops of the fenders or exposed rear tires and on centerline. Offset measured from centerline to the outside of tire sidewall. Wheelbase may not be altered.
- Q. Glass headlights must be taped or removed.
- R. Maximum width 38" sidewall to sidewall unless otherwise stated in the class build section.
- S. Steering wheels and handlebars may be replaced with any commercially available pieces, but not substituted for each other. May not be mounted off center unless originally mounted offset. **Handlebar type grips may not be added to steering wheels.**
- T. Tires must be lawn tractor tires. No Snow Hog, tiller, A.T.V., commercial mower or performance compound or competition kart tires.
- U. No centrifugal and/or torque converter clutches.
- V. Minimum 4" ground clearance to frame, 2 ½ " ground to deck unless otherwise stated in class build section. Fuel Lines must be clamped at all joints.
- W. **All mowers must utilize a clutch.**
- X. **Flywheels**
 - a) Unmodified Stock
 - b) 100% Billet
 - c) Modified Stock along with an approved scatter shield (guidelines below).

All Scatter shields used on racing lawnmowers must adhere to the following specifications:

- 1) Scatter shields must be fabricated from 1/8" steel minimum.
- 2) The scatter shield must be form fitting and follow all of the contours of the blower housing.
- 3) The scatter shield must be the same height (vertical shaft) or same width (horizontal shaft) as the blower housing and be bolted to the block using the original mounting points.
- 4) A 1" x 1/8" minimum steel strap must run across the face of the blower housing to reinforce the scatter shield, side to side.
- 5) Notches for starter drives must be reinforced to at least one inch past each end of the notch.
- 6) Any holes drilled into shield for items such as dip stick holder or fuel pump must be ½" or less.
- 7) The scatter shield must be painted to match the engine's blower housing

VI. FUEL and FUEL DELIVERY

The only acceptable fuel is pump gasoline. Any apparatus other than the carburetor or fuel injector, which can be used to introduce any gaseous or liquid substance into the induction flow, whether connected or not, is prohibited, and will result in disqualification. Such devices include, but are not limited to, Nitrous Oxide, alcohol or water injection systems, turbo or superchargers, and/or the attendant hardware consistent with these systems. Any attempt to conceal or disguise such apparatus will be considered a flagrant violation and may result in expulsion from the race.

VII. RACING CLASSIFICATIONS

MODIFICATIONS NOT LISTED ARE NOT APPROVED

INTENT: To provide a safe opportunity to demonstrate the driver's ability when in competition with essentially identical mowers. This is a highly regulated class to insure uniformity between machines.

***** WARNING!*****

Remove mower blades before modifying or removing the engine governor. Governor alternations will allow the engine to over speed, which may cause blade or blade assembly to explode, presenting grave danger to participants, spectators and officials around the mower, and may lead to damage of the engine and/or engine components.

- A. **PREPARED:** Class designation: 12 – 16 H.P. Single / 16 – 20 H.P. Single and/or Twin. These mowers are as delivered from the factory except for the modifications listed below:
- 1) Engine must be originally manufactured for use in lawn mowing equipment and be stock in appearance, with the exception of air filter, air cleaner or velocity stack. Crankshaft must be in original orientation and clearance hole in the frame. Engine may be internally modified.
 - 2) Exhaust design is open, but must terminate away from driver and competitors, in a rearward and/or downward direction and present no apparent safety hazard.
 - 3) Starter must be onboard, either electric or pull-rope.
 - 4) Driveline may be modified from the engine pulley to the rear wheels, but must utilize a shiftable lawnmower transmission or transaxle.
 - 5) Rear axle may use open differential, locked, "live" or solid axle. No single wheel drive
 - 6) No centrifugal and or torque converter clutches.
 - 7) Rear axle should use shaft locks, center bolts, or thru-bolts to secure the rear wheels.
 - 8) All steering linkages must use ball-type or spherical threaded rod ends.
 - 9) Front axle may be pinned, bolted or welded into stock position. No suspension, no shock absorbers. **Axles must have a 1-piece beam.**
 - 10) Front axle and steering may be reinforced, substituted or fabricated. In the case of racer-fabricated axles, **these will be subject to the judgement of the Technical**

Inspector as to their apparent safety for racing. Aluminum may not be used as the material for the one-piece axle.

- 11) Shaft locks, center-drilled axle with locking bolts, castellated nuts with cotter pins, are acceptable for securing front wheels. Cotter pins, E-rings and C-rings alone, bent nails, hitch pins, over-center pins and quick-release pins are not sufficient for wheel retention and are not approved.
- 12) Wheels must be the same size on each axle, of any origin, made of metal. No dual or tandem wheels.
- 13) **Deck:** The deck must be at least as wide as either running boards or body edge whichever is wider. Decks may not extend any more than 2” beyond the tire sidewalls on each side. Deck halves may be mounted to running boards. Decks must be secure.
- 14) SAE lawnmower tires must be used.
- 15) Footholds must be discrete, and not more than 2” high, made of flat or “L” stock (no rod stock), and made such that the foot cannot become entangled in a rollover.
- 16) Class is determined by the OEM factory rating of the lawn mower engine.
- 17) All parts should be of lawn mower origin with the exception of those specifically mentioned above or otherwise allowed under Sec. VII
- 18) Hoods and body parts such as fenders may be upgraded from year to year only if the parts are from the mother company and any subsidiary company of said mother company.
- 19) External ignition Systems are allowed.
- 20) Aluminum Flywheels are allowed.
- 21) Fenders may be discreetly moved but not altered.
- 22) Must use axle mounted brakes, lawnmower brake will work if you can prove it will stop.

CLASSES DEFINDED; (based on OEM BLOCK designation)
12 – 16 H.P. Single and 16 – 20 H.P. Single and Twin

Crankshaft must in original orientation. Engine plate may be welded to frame rails in as close to the original location as possible.

4 Stroke engines, 6” minimum front wheels. 8” minimum rear wheels.

INTENT:

To allow competitors the opportunity to compete in a faster class of racing. Mowers must maintain a recognizable form of a lawn mower.