

# 2012 Lucas Oil Regional Series/ASCC Full Stock Truck Class Rules

The following rules are meant to provide a cost effective, competitive, and fun entry-level off-road racing class. When reading through this list of rules, remember one thing... if there isn't a rule specifically allowing a modification from "stock", you can't modify it!

## 1.) Vehicles allowed:

A.) Full-size trucks and SUV's sold in the U.S. at least 10 years old or older.

## 2.) Safety:



### A.) Roll Cage requirements:

- a.) All trucks must have a minimum of a six-point roll cage
- b.) All roll cages must be constructed of 1.75"x.120" or larger, seamless D.O.M. or 4130 tubing for the main cab area. This includes all bars in the cab as well as the down bars that exit the rear of the cab.
- c.) All roll cages must have 3 driver's side door bars with internal vertical supports.
- d.) All roll cages must have at least 2 passenger's side door bars. If carrying a passenger, the passenger's side must have 3 door bars with internal vertical supports just like the driver's side door bars.
- e.) On all new trucks that did not race in the 2010 season, the driver's side door bars must curve outwards into the door to create a larger, safer, driver's compartment. If carrying a passenger, the passenger's side door bars must also curve outwards into the door. On trucks that raced the 2010

season, flat door bars will be allowed so long as there are no openings larger than 144 square inches and all tubing junctions have a proper gusset. If your truck build was started during the 2010 season contact a series official and ask to be grandfathered in under the same rules as trucks that participated during the 2010 season. There is no guarantee that you will be grandfathered in, and only those builds that series officials were previously aware of will be allowed this courtesy.

f.) All roll cages must be constructed with diagonal supports to keep the cage from collapsing in a sideways, top-to-bottom, or front-to-rear impact.

g.) All structural intersections of tubing must have a 3"x3"-.120" thick plate style or at least a 1"x.065" wall thickness tubing gusset.

h.) Additional tubing beyond the minimum requirements may be added and doesn't have to be 1.75"x.120".

#### B.) Oil System requirements:

a.) All trucks with an electric fuel pump must have power to the fuel pump routed through an AC Delco low-oil-pressure switch (AC DELCO # 25036938) to cut off power to the fuel pump in the event the engine stops.

b.) Any oil coolers, if used, must be located outside the cab area. There must be a firewall of at least .040" thick metal between the driver and cooler.

c.) No oil lines allowed inside the cab.

#### C.) Fuel System requirements:

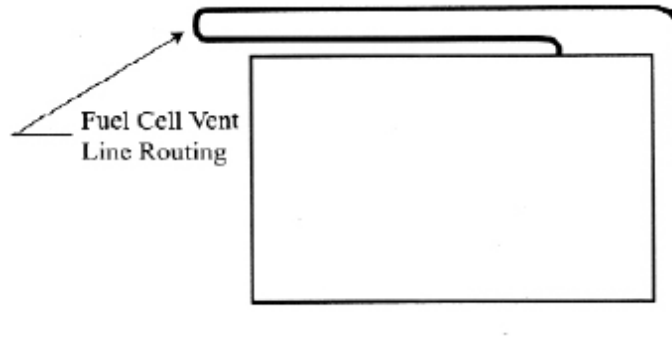
a.) All trucks must use a commercially produced fuel cell located in the center of the bed.

b.) Fuel cell must have a bladder encased in a metal housing. The metal housing can be steel or aluminum, and must be at least 16ga. thick.

c.) The fuel cell must be located in the middle of the bed area, and must be mounted with at least 1" wide x .125" thick flat steel bar stock.

d.) Must have a minimum of 3 straps holding the cell in the truck, at least 2 straps side to side, and at least 1 strap lengthwise.

e.) The fuel cell vent must be routed in such a manner to keep fuel from escaping in event of a roll-over.



- f.) All fuel lines must be routed away from any moving objects, and the exhaust.
- g.) If the fuel cell is mounted within reach of the driveshaft, a protective shield must be mounted between the cell and driveshaft.
- h.) All mounting hardware for the fuel cell and shield must be a minimum of 3/8" diameter and Grade 8 or better.

D.) Driver's safety equipment:

- a.) A one piece driver's suit is required. The suit must cover from the neck to ankles, and to the wrists. All suits must have the SFI label attached, and meet SFI spec 3-2A/5 or higher. All safety equipment must be clean, in good condition, and free from any rips or worn areas.
- b.) Driver must wear gloves and shoes that meet SFI spec 3.3/5 or higher.
- c.) Full faced helmets with face shield are mandatory. Helmet must be certified to one or more of the following: Snell Memorial Foundation SA 2005 or better with a legible SNELL sticker attached, SFI spec 31.1/5 or better with SFI sticker attached, or FIA 8868 with a legible FIA sticker attached.
- d.) Lexan shield must be closed during competition.
- e.) 5 or 6-point seatbelt harness that meets SFI spec 16.1 or 16.5 is required.
- f.) Sternum straps are not allowed.
- g.) Head and Neck restraints are required. D-Cell, R3, and Hybrid are the only devices currently approved.
- h.) Only manufactured racing seats are permitted.
- i.) Window nets are required next to any occupants. Nets must meet SFI spec 27.1 and have SFI label attached. Ribbon or honeycomb mesh are approved. The window net should cover the entire window opening to allow no more than 3" for access to occupant. The safety net anchor must be welded to the cage. The window latch must be located at the top front end of the net. Latch must be a safety belt style latch.
- j.) A windshield screen is recommended to protect driver. The maximum opening size in this screen is 1.5"x1.5", and the minimum material thickness is .125".

E. Firewall:

- a.) Complete front and rear OEM firewalls are required.
- b.) All open holes in the firewalls must be filled so that no more than 3/8" openings exist.
- c.) On trucks or S.U.V.'s that don't have an OEM rear firewall, a firewall must be fabricated from steel or aluminum of at least .040" thickness. This firewall must extend from the driver's shoulders down to the bottom of the cab, and from side to side of the cab.

3. Chassis:

A.) Frame:

- a.) Complete un-altered OEM frame must be used. No material may be removed with the exception of any un-used brackets or tabs.
- b.) Material may be added to reinforce the frame.
- c.) No material may be removed from any cross member except for required driveshaft or rear end clearance.
- d.) Radiator may be relocated to the rear of the cab, but must have a firewall between the driver and radiator. If the radiator is positioned above the rear firewall, a protective screen must be installed to protect the radiator from puncture on the front side. At no time can any portion of the radiator be outside the main roll cage structure.

B.) Body:

- a.) OEM cab must be used. No external modifications allowed except for roll-cage tubing clearance.
- b.) Internal sheet metal may only be trimmed for roll cage clearance.
- c.) Any un-used tabs or brackets may be removed to provide a safer driver's compartment.
- d.) OEM looking grill is recommended.
- e.) All glass and removable trim must be removed.
- f.) All headlights and side markers must be removed. Headlight openings must be covered.
- g.) Doors must be welded or bolted shut.
- h.) Fenders must be securely bolted on. No Dzus fasteners allowed.
- i.) Body must be mounted within 1" of factory location.
- j.) Stock rubber body mounts may be removed or replaced with other material.
- k.) Removal of front and rear inner fenders is allowed.
- l.) Up to 2" of fender well opening may be removed and fenders may be flared out an additional 2" to allow for tire clearance.
- m.) Dash may be removed. Aftermarket analog and electrical individual gauges are allowed. Electronic dashes are not allowed.

n.) Removal of the inner fenders and floor of bed is allowed.

C.) Electrical:

- a.) Battery may be relocated, but must not be located inside cab.
- b.) A master shut off switch is required. It must be located on dash panel within reach of officials through the driver's side window.
- c.) A working stock OEM alternator for the make and model of truck is required. Must be mounted in stock location.
- d.) A momentary switch is allowed for priming fuel system while engine is not running.

D.) Drivetrain:

- a.) No aluminum heads of any type are allowed. Only OEM cast iron heads are allowed. No aftermarket heads are allowed, including Ford Racing, Mopar, and GM Performance Parts.
- b.) The engine block must be an OEM production cast iron block. Aftermarket blocks are not allowed, including Ford Racing, Mopar, and GM Performance Parts blocks.
- c.) No fuel injection, turbo, supercharger, or nitrous systems are allowed. All engines must remain naturally aspirated with a carburetor.
- d.) Driveshaft must be painted white and have vehicle number on it. Driveshaft must also have a retaining loop within 12 inches of the front and u-joint. If a center u-joint is required, a driveshaft loop is required within 12 inches of it on the rear most portion of the driveshaft as well as another loop within 12 inches of the front u-joint.
- e.) Maximum engine size is 360 cubic inches. Displacement formula used for tech purposes is  $= (\text{Bore}/2) \times (\text{Bore}/2) \times (3.14159) \times (\text{Stroke}) \times (\# \text{ of cylinders})$ . All measurements are made in inches and rounded to 3 decimal points.
- f.) Commercially available aftermarket cast intake manifolds are allowed. No external modifications allowed on intake manifold. No fabricated intake manifolds allowed.
- g.) Any fuel pump and fuel pressure regulator may be used.
- h.) Aftermarket carburetors are allowed. Maximum 1 carburetor.
- i.) Any air cleaner may be used.
- j.) Any header may be used.
- k.) At certain tracks, these trucks must have a working muffler(s). If mufflers are required by a track, all exhaust must pass through the muffler(s). It is up to each individual track to allow or not allow open exhaust systems on these trucks. Please contact a series official prior to each event to verify the need to run mufflers.

- l.) A performance clutch may be used to increase durability.
- m.) A ¼" thick steel bell housing shield is required on manual transmission trucks. The shield must cover the top 270 degrees of the bellhousing. On automatic transmission trucks, a transmission shield or blanket must cover the top 270 degrees of the main casing.
- n.) No race fuel is allowed. Only 91octane pump gas is allowed.
- o.) A spool, limited slip, or locker is allowed.
- p.) Ring and Pinion gear ratio is open.
- q.) Gusseting or strengthening of the rear-end housing is allowed.

#### E. Bumpers & Nerf bars

- a.) Front bumper must have looped ends. Front bumper may not extend more than 12" in front of the hood.
- b.) Rear bumper must be built in a manner to protect the fuel cell from impact.
- c.) Bumpers must not protrude past the outside of tires when viewed from the front or rear.
- d.) Nerf bars are allowed, but may not extend more than 2" wider than the widest portion of the body. The front and rear ends of the nerf bars must be looped inwards. Nerf bars must attach to frame.

#### F. Minimum Weight:

- a.) 4 wheel drive trucks must weigh at least 4200lbs. including driver.
- b.) 2 wheel drive trucks must weigh at least 3700lbs. including driver.
- c.) Minimum weights are measured with driver as they come off the track.
- d.) Minimum weights may also be checked before going onto the track.

#### G.) Tires and Wheels:

- a.) Tires must be D.O.T. and available to the general public through normal dealer distribution.
- b.) **Maximum Diameter is 33".**
- c.) No beadlock wheels.
- d.) No inner liners allowed.
- e.) Wheels must be in good repair. Both steel and aluminum are allowed.
- f.) No wheel covers are allowed.

#### H.) Suspension:

- a.) Front wheel travel is limited to 12 inches. Front wheel travel is measured on a vertical plane at the center of the spindle. Travel is checked with the spring and wheel/tire removed. With the frame supported, the suspension is allowed to droop out. A measurement is taken from the

ground to the center of the spindle (measurement B). Then compress the suspension fully and take a measurement from the ground to the center of the spindle (measurement A). Make sure that there are no bumpstops installed when checking wheel travel. The wheel travel amount is “Measurement A” - “Measurement B”.

b.) Rear wheel travel is limited to 12 inches. Rear wheel travel is measured by supporting the frame and allowing both rear wheels to droop completely. The measurement from top of the axle housing to the bottom of the frame is your rear wheel travel. Make sure that there are no bumpstops installed when checking wheel travel.

c.) All suspension components must remain stock, in stock locations, and the original mounting methods must be maintained except as noted elsewhere in this rulebook. Suspension pieces may be reinforced.

d.) Upper and lower shock mounts may be re-located.

e.) Front lower shock mounts must mount directly to an A-arm, I-beam, or radius arm. No linkages or rocker assemblies allowed between suspension member and shock.

f.) Suspension components may be strengthened or gusseted as required.

g.) Rear lower shock mounts may be re-located but must remain on the rear-end housing or leaf spring pad.

h.) The front and rear springs must be of the original concept. I.E. coil spring, leaf spring, or torsion bar... The front springs or torsion bar may be relocated to allow ride height adjustment, or to allow the use of commercially available springs or torsion bars. Rear leaf spring front perches must remain in OEM location.

i.) Aftermarket springs can be used.

j.) Maximum track width is 70“ as measured from hub face to hub face.

k.) No more than 3 2” shocks can be used per wheel. Maximum of 1 2.5” diameter shock per wheel. Reservoirs are allowed. Externally adjustable shocks are not allowed. Bypass shocks, internal or external are not allowed. Shock length is open.

l.) Rubber or polyurethane bump/droop stops are allowed. No hydraulic or air “can” style bump stops allowed.

m.) Secondary suspension systems are not allowed.

n.) Limit straps are allowed.

o.) Bushings may be replaced, but must remain rubber or polyurethane.

p.) 2 single point Anti- wrap up bars are allowed. These bars must be mounted parallel to the frame. They may only connect to the rear end housing at one point each.

q.) Drum brakes can be converted to disc brakes using factory components only.

r.) A-arm trucks may replace the upper A-arm with aftermarket A-arm, but the replacement A-arm must mount in OEM location.

s.) A-arm trucks may replace the upper balljoint with a uni-ball or aftermarket balljoint.

t.) Aftermarket or custom shackles are allowed on all leaf springs.  
Shackle mount location and mounting method is also open.

I.) Steering:

- a.) All steering components must remain OEM stock for year and model of truck.
- b.) The tie-rod sleeves may be replaced with a threaded tube of OEM length.
- c.) Steering quickeners are allowed.
- d.) Steering shaft that leads to steering wheel must have at least 2 flexible joints in it.
- e.) Any steering wheel may be used.
- f.) The tie rod ends may be replaced with heim joints.