

SORRCA
Scale Off Road RC Association
2013 Official Scale Rock Crawling Competition Rules

This rulebook is intended to standardize scale off road RC competitions that are held at various locations throughout the world. The intention is for all clubs/events to use these rules as written; however, they may be modified on a local basis. Any and all changes made to these rules at a SORRCA sanctioned event must be covered in a preliminary drivers meeting and publicly posted before the event. 2013 updates in red.

Class Descriptions:

Class-1 “Street”

- Description - A street legal off-road vehicle that you would drive to work or the trail head and outfit like an expedition vehicle such as the Camel Trophy truck D90 rigs.

Class-2 “Trail”

- Description - A stock vehicle that has been modified to become a capable trail rated rig and is not necessarily street legal .

Class-3 “Modified”

- Description - An off-road vehicle that you would build from the ground up and might see in a TTC/KOH type competition.

General Vehicle Details

- You are encouraged to go above and beyond to make your truck as scale as possible.
- Vehicles must resemble a real 1:1 rig. It will be up to the collective group to vote on whether a questionable rig is accepted or not.
- Tire size will be determined by advertised manufacturer specs (tires without available specs will be measured off the truck as mounted on the wheel laid flat).
- Tire modification:

Class-1 Street. No external tire modification is allowed.

Class-2 Trail. Tire lugs may be removed, siped, grooved and/or trimmed.

Class-3 Modified. **Tire modifications are permitted, as long as the tire is no larger than 5.75" in diameter measured off the vehicle laying on its side, and all tire parts are from a legal scale tire.**

- You must run a rail chassis (for example: Bruiser/Mountaineer, SCX-10, Reign RC K2-3S, 3L, 4, 5, MFM, X-Trail, CR-01, UTE, etc...). No TVP (twin vertical plate) chassis' or frame rail extensions on a TVPs. Tub chassis' are allowed, but chassis must be covered by the body and follow all other scale rules per class guidelines. An example of a tub chassis vehicle is CC-01, DF01, Twin Hammers, etc.
- 4-wheel steering or dig is allowed in modified class only (you must choose 1 per course).
- No "Motor On Axle" (MOA) of any kind. All motors, transmissions, and other electronics (other than steering servos) must be chassis or frame mounted. Your axles must be driven by one transmission or transfer case and a minimum of two driveshafts (except CC-01, TA-02, etc) No separate throttle control of drive shafts or axles.
- There are no wheel size distinctions. For example, you can run a 1.55, 1.9, 2.0 or 2.2 rim in any class. Wheels larger than 2.2 are not allowed in any class and no short course style wheels with split diameters.
- Spare tires must be within 1/4" diameter of your drive tires to receive points.
- Any functional recovery tools you wish to use during your run, you must carry it on your rig at all times. IE tow strap, pull pal, and sand ladders.
- Winching can only be performed off of natural objects (i.e. trees, rocks, etc...), other vehicles, or stakes supplied by the course builder. Winching off of a person such as their shoe or hand is not allowed.
- All vehicles should have the motor, transmission, and electronics covered and hidden when viewed from the top and sides. Batteries must be chassis mounted and should be hidden from view.
- Courses will be tough and made to push the scale vehicle's limits. This is to encourage competitors to improve their rigs from one event to another.
- Winches are HIGHLY recommended!!!! Expect to use a winch.
- Water proofing is HIGHLY recommended!!!! Expect your rig to get wet.

Tire Ban List:

- Losi Claws (all sizes, and types)
- Hot Bodies Rovers (all sizes)
- Hot Bodies Sedonas
- HPI Rock Grabbers
- Panther Cougars
- Panther Leopards
- Pro-Line Chisels (all sizes)

- RC4WD Rocklin
- RC4WD X-Locks (all sizes)
- RC4WD Crazy Crawlers
- Imex Skulls and Bones
- Losi Bashers

Tires should be scale appearing, if it is questionable have it reviewed before the event, or plan to run a different tire. As new competition specific tires are released this list may be updated.

Class-1 “Street” Details:

- Vehicle must have a windshield that fills the entire windshield frame.
- Full width bumpers are required on the front and rear of the vehicle. Bumpers that are molded into the body qualify. A rear bumper is not required on a flatbed, but adding one to the flatbed will gain the additional scale points. (Bumpers are measured from the outsides and must be the width of your windshield).
- Wheels must be aligned within the body wheel wells (center of wheels to center of wheel wells +/- 1/2 inch total combined)
- The vehicles body must be mostly intact. Only mild trimming such as flairs & removing a hardtop are allowed. If the hardtop is removed, a full interior is required (no extreme trimming of bodies allowed *See below.)
- The tread of the tires cannot extend outside of the wheel wells more then 1/2 of the tread width, flairs can be added to reach min. spec.
- Vehicle must run a full length rail chassis (The rail chassis must be as long as the vehicles wheelbase)(Tamiya CC-01 chassis are allowed).
- Truggies are not allowed, flatbeds with full length rail chassis are allowed. The bed must be as wide as the cab the entire length of the bed. Cab only not allowed.
- Tires can never extend beyond the body’s bumpers or the rear of any truck bed. (Any stingers, fairleads, shackles, bolts, etc are not considered part of a bumper when determining this.)
- Dovetailing is not allowed.
- Sectioning or narrowing of the body is not allowed.
- Bobbing a truck bed is allowed, but must follow all body specs.
- Boat sides are not allowed.
- 106mm / 4.19" Max tire size including spares.
- Gates will be a minimum of 11" wide (so mind your width).

Class-2 “Trail” Details:

- Body/cage work must be at least 4.5" tall (including boat sides) and the inside of the front tires cannot extend outside of the width of the cab at the doors.
- A front bumper is required and must be mounted to the vehicle's rail chassis and must be wider than the outside of the chassis rails (chassis cross rails do not count as bumpers).
- You must run a full rail chassis, and the chassis (including bumpers) must be 3" longer than the wheelbase (this includes a chassis with a truggy rear frame).
- Truggies are allowed, but you must replace the ladder frame behind the cab with tube, and the truggy rails must extend past the rear axle pumpkin to be legal. The bed must have a roll bar hoop and integrated shock mounts. It also must be a structural part of the rear of the vehicle. (If your bed does not meet ALL of the preceding criteria, it does not count as a truggy bed).
- Flatbeds that run the full length of the rail chassis are allowed. The bed must be as wide as the cab the entire length of the bed.
- 2 of the 3 following modifications are allowed:
 - Dovetailing the rear (1/2 the width of the widest part of the cab) *a truggy/tube bed that is narrower than the cab counts as a dovetail*.
 - Boat sides (no more than 1.25" measured vertically from the bottom of the skid).
 - Pinching the front (2/3 the width of the widest part of the cab).
- 120mm / 4.75" max tire size with a 2.2 max rim size including spare.
- Gates will be a minimum of 12" wide (so mind your width).

Class-3 “Modified” Details:

- 146mm / 5.75" max tire size with a 2.2 max rim size (including spare).
- A bumper is not required, but to be counted for points it must be mounted to the vehicle's chassis and wider than the the chassis rails (chassis cross rails do not count as bumpers).
- Gates will be a minimum of 13" wide.
- Class 3 body minimum specs:
 - Rock sliders, mirrors, etc do not count in these measurements:
 - The distance between the inside of the tires (of any axle) can be no greater than 1.25" more than the width of the body at the doors. *Example* (7" inside-of-tire to inside-of-tire = body must be 5.75" wide).
 - The body must be at least 5" wide from the front to the rear of the doors.

- Tire height can be no more than 0.5" taller than cab height. Height is measured from the bottom of the skid to the top of the bodywork/tube not including a light bar. (5.5" tire = 5" tall from bottom of skid to top of cab/tubework)

- Body must be at least as long as the wheelbase of the vehicle.

• Body modifications including, but not limited to, pinched front, dove-tailing and boat-siding are permitted as long as the final dimensions comply with the minimum size rules.

Scale Points:

Scale points are to be awarded at 50% of a vehicles total value (rounded down if necessary) for an average 10 gate course.

Minimum/Maximum values are to be determined by the event organizers or local clubs.

Scale points will be applied to a DNF but not to a DNS.

No items can be counted more than once unless noted otherwise

Bed: Not available to tubers.

• Tube bed OR flatbed: metal -3, plastic -1

• Bed mounted headache rack or roll bar: metal -2 plastic -1

• Truggy/back halved truck: metal -4, plastic -2

(Must replace the ladder frame behind the cab with tube, and must extend past the rear axle pumpkin to be legal. The bed must have a roll bar hoop and integrated shock mounts. It also must be a structural part of the rear of the vehicle. (If your bed does not meet ALL of the preceding criteria, it does not count as a truggy bed). Tube bed, roll bar, shock mount points not available in addition to truggy bed points.

Tuber: metal -8, plastic -4

A tuber consists of a complete body structure where the front, cab, and rear sections are comprised entirely of structural tubework.

Tube bed, roll bar, internal cage, and shock mounts points not available in addition to tuber points.

• Rigid metal/plastic body panels -1

Interior cage or exo-cage: (-3 metal -1 plastic) per row of seats or area where seats would be (vehicle doesn't need an interior to get these points). Cage must have down bars and cross bars in front and behind each row. Not available to tubers.

Tube accessories:

- Sliders: (both sides) metal -3, plastic -1
- Integrated tube shock mounts: **metal and brazed/welded to frame** -1 (per pair)

Body:

- Hard body: full -8, cab -4
- Drop bed : -3
- Complete custom built body: (metal or hard plastic, no lexan) full -4, Cab -2 (in addition to hard body points)
- Inner fender wells: -1 per pair

Bumpers (items must be chassis mounted and separate from the body):

- Bumpers : metal -3 each , plastic -1 each
- Stinger/grill guard: -1

Exterior roof rack/light bar (may only choose one):

- Roof rack: metal: -2, plastic -1
- Roof top light bar : metal -1

Interior:

- 3D interior: 1 seat -3, 2 seat (or bench) -4, 4 seat -5 (any 3D interior must include seat, dash, steering wheel and floor). A 3D SUV cargo area will be awarded an additional -1
- 2D/half interior: 1 seat -1, 2 seat -2, 4 seat -3.
- **Driver/passenger must be human, scale sized adult figures. Only available if accompanied by an interior.**
 - 4 Complete Figure
 - 3 Knees Up
 - 2 Torso Up
 - 1 Head with arms
 - 1 point for 3rd and 4th passengers (Kids OK for 3rd & 4th passengers)

Suspension/drivetrain/steering:

- Leaf springs (front/rear): -3 ea, -7 both.
- Multiple axles: 3 driven axles -3, 4 (or more) driven axles -5
- Chassis mounted steering servo: -5 (front) -2 (rear) *rear= Class 3 only*
- **Functioning** transfer case: -4.
- 3D engine: **Must be in a reasonable location and appear to be powering the drivetrain of the vehicle** (-4)

Realistic exterior items (max -6 pts): Items that are non-functional but you would see on a trail truck.

- Fuel cell, exhaust, jerry can, hubs on all wheels, steering stabilizer, disc/drum brakes on all wheels, mirrors(2), wipers(2), antenna, license plate, fire extinguisher, trail tools (Hi-lift jack, etc.) first aid, etc. -1 each

Functional items (max -8 pts for all items listed below):

- Tow strap, -D-ring, Pull Pal, sand ladder, hitch, opening doors and hood, spare tire mount, etc. -1 each
- Headlights(2) and taillights(2) -2
- Winch -2 front, -2 rear (max -4)
- Full size spare tire. -3