

Kenai Peninsula Racing Lions



TCR MOD RULES

Updated 2024

11. TCR MODS

11.1 SAFETY EQUIPMENT:

- Rules always apply when the car is on track.
- Snell-rated SA2010, SA2015 or SA2020 helmet required.
- Roll bar padding required in driver compartment.
- Recommended: Fire retardant padding. -SFI-approved full fire suit, gloves and shoes required.
- Right and left seat head supports required fusing head and neck restraint system.
- Recommended: Fire retardant head sock and underwear, collapsible steering shaft, head and neck restraint system.
- Driver-side window net required, minimum 16-inch by 20-inch ribbon or mesh style, and must be mounted to the roll cage so the latch is at top front of the window.
- Maximum 4-inch-tall visor attached to window net.
- Minimum 2-inch wide SFI-approved five-point safety belt assembly required, must be mounted securely to the main roll cage.
- Recommended: Safety belts are no more than two years old.
- Kill switch required within easy reach of driver and must be clearly marked 'OFF' and 'ON'

11.2 FRAME:

- (See frame drawing) 1964 or newer OEM perimeter American rear wheel drive passenger car frame only.

- No sports car frames.

Frame must be full and complete and cannot be widened or narrowed.

- Exceptions are: weight jack in original centerline of spring tower allowed; frame may be cut a maximum 36 inches forward from center of rear end housing; horns may be removed in front of the steering box and notched maximum one inch at bottom for tie rod clearance; front cross member may be notched and boxed for radiator and/or steering clearance; maximum 7-inch-wide opening inside of spring tower for spring removal.

- Maximum two inch wide by 4-inch-tall frame stiffener may be welded directly to outside of left side frame rail, the left top frame rail can be removed inside the cockpit.

- Minimum wheelbase 108 inches, maximum 112 inches, maximum one inch difference from side to side.

- Maximum overall width shall not exceed 78 inches from outside of tire to outside of tire.

- For cars using OEM rear suspension design, rear of frame behind rear tires no further forward than one inch behind factory seam, may be replaced with 2-inch by 3 -inch steel tubing with 0.095-inch wall thickness.

- No part of the frame or body can be lower than four inches from ground except the front cross member and rear underslung.

11.3 ROLL CAGE:

- Must consist of continuous hoops, minimum 1.75-inch O.D. tubing, with minimum wall thickness of 0.095-inch for the main cage, frame mounted in at least six places.

- Recommended: low carbon or mild steel.

- Must consist of a configuration of front, rear and top hoops connected by tubing on sides or side hoops.

- Driver's head must not protrude outside the cage with the helmet on.

- Roll cage must be securely supported and braced with minimum one cross bar in top halo.

- Foot protection bar required. Main cage no further forward than rear of engine.

- All bars forward of the cage must be lower than the hood.

11.4 DOOR BARS:

- All driver side door bars and uprights must be minimum 1.5-inch O.D. with 0.083-inch wall thickness.
- Minimum three driver side door bars, parallel to ground and perpendicular to driver, and welded to front and rear of roll cage.
- Passenger side must have at least one cross door bar, horizontal or angled, minimum 1.25-inch O.D. with 0.083-inch wall thickness, and one horizontal top door bar, minimum 1.5-inch O.D. with 0.083-inch wall thickness.
- Steel door plate, 18 gauge or 0.049-inch minimum thickness, must be securely welded to the outside of driver side door bars and cover area from top door bar to bottom door bar and from rear hoop down-post to five inches in front of seat.
- Must be visible for inspection.

11.5 BODY:

- (See diagram)
- Body and interior deck must be the same width, front to rear, and parallel to the OEM frame.
- Nose panel must be flat. Maximum 2.250-inch side fins allowed on aluminum nose.
- Plastic nose pieces are allowed.
- Nose must be mounted in an approved manner and can extend no higher than the front top of hood.
- Nose pieces must remain inside confines of the front bumper (exception is plastic valance), same width front to back, and be no lower than 4-inches below frame horns.
- Cooling holes allowed.
- Engine compartment must remain open (no side panels).
- Hood must cover radiator, be level or sloped down at front, enclosed and maximum two inches above interior deck at rear.
- Air cleaner top maximum 6-inches above hood.
- No panel in front of the right door to the engine compartment.
- No inner panels.
- Plastic or composite body panels including door quarters, nose and deck allowed
- No complete or half-car covers, rear tail cover allowed in personal pit area only.
- Must have front and rear roof support posts.
- Driver and passenger side windows must have at least 12-inch opening (height and width), measured at center of window, between lowest point at top and highest point at bottom.
- Solid sail panels only.
- Roof must composite fiberglass or aluminum, full size, rounded down in all directions and mounted within a 0.5-inch of the rear roll cage.
- No dished roofs allowed.

- Driver roof hatch is allowed.
- Maximum 1.5-inch rolled down rock guard allowed on roof front.
- Maximum 4-inch roof sides allowed.
- Maximum 1-inch ridge down sides of roof.
- Maximum 1-inch rear roof stiffener (must face down).
- Sail panels must remain within the dimensions of drawing and may not extend ahead of the back of the seat.
- One piece rear spoiler allowed, maximum 5-inches in material height and same width as interior deck.
- Spoiler may have a maximum 1-inch rear stiffener, must be one inch or more down from top.
- Maximum three spoiler braces allowed, must be mounted in line.
- Spoiler braces must resemble all aspects of drawing.
- Spoiler must be mounted within confines of spoiler braces.
- No additional fins, lips, wings or vortex generators allowed.
- Maximum 4--inch plastic skirting allowed on bottom of doors, quarters and nose.
- Car number must be minimum four inches thick and 20-inches tall and clearly visible, on both sides and roof of car; 6-inches tall on front and rear.

11.6 DRIVER COMPARTMENT:

- Must have a minimum of three windshield bars in front of the driver.
- The Lexan or aluminum cowl panel in front of the driver can be no wider than the cockpit and no farther back than the steering wheel.
- Minimum 0.125-inch aluminum, or 0.060-inch steel, complete floor pan required.
- Aluminum high back seat only and must be bolted in, using minimum 0.375-inch bolts, next to left side frame rail and ahead of rear tires.
- Bottom of the seat can be no lower than the bottom of the frame rail.
- Driver must be sealed off from track, drive line, engine, fuel cell, canisters and pumps.
- No driver-adjustable devices allowed while car is in competition except brake adjuster.
- No mirrors of any kind.

11.7 FRONT SUSPENSION:

- All components must be steel, unaltered OEM, in OEM location, and replaceable by OEM parts.
 - Exceptions are: tube-type upper A-frames with or without the ability to adjust, aluminum or steel cross shaft, and mounts can be moved.
 - Stamped steel OEM replacement lower A-frames; rubber, nylon or steel lower A-frame bushings, (no offset or bearing type), one welded shock mount on lower A-frame, no screw jack type shock mounts.
- OEM, OEM replacement, rebuildable or screw in ball joints allowed.

- Lower A-frames must be right and left, and of the same design.
- Lower A-frame mounts and bolt holes on frame must be within OEM specifications.
- No sway bar allowed.
- No suspension stops of any kind.

11.8 STEERING:

- No rack and pinion.
- All components must be steel, unaltered OEM, ni OEM location.
- Exceptions are: outer tie rod end and adjustment sleeve may be replaced by a minimum 0.625 inch steel rod end and steel tube; spindles can be ground for brake caliper clearance only.
- Unaltered OEM, OEM replacement or Pinto spindles allowed.
- Bolt on spindle savers allowed.
- Steel steering shafts and knuckles only, driver compartment steering may be modified, and must be kept on the left side.
- Spindles must be right and left, and of same design.
- Quick release required.
- Quick ratio steering box or steering quickeners allowed.
- Steering wheel may be aluminum.
- Idler arm, pitman arm, and center link must match frame.

11.9 SHOCKS:

- One nonadjustable, unaltered shock per wheel only.
- Maximum 7-inch stroke on front shocks and maximum 9-inch stroke on rear shocks.
- All shocks must completely collapse at any time.
- No shock can preload or pin any spring.
- No external or internal bumpers or stops.
- One shock mount allowed, must be welded.
- No shocks allowed on screw jacks.
- No bulb type, threaded body, coil over, air or remote reservoir shocks.
- Maximum 2.125-inch O.D. shock body.
- No Schrader valve or bladder type valved shocks allowed.
- Front half may be shielded.

11.10 SPRINGS:

- One steel, non-progressive closed end coil spring per wheel only.
- Minimum 4.5-inches O.D.
- Front coil springs must be 9.5-inch free height with 0.5-inch tolerance.
- Rear coil springs must be 11-16-inch free height with 0.5-inch tolerance.
- No torsion bars, air bags, inner liners or spring rubbers allowed.

- Steel rear leaf springs allowed.

11.11 REAR SUSPENSION:

- Any rear suspension design may be utilized including: 3 link, 4 link, leaf spring or stock OEM style.
- However, no coil over shocks allowed.

11.12 REAR END:

- Any OEM passenger car or truck rear end (housing and carrier) or quick-change rear allowed.
- Spools allowed.
- Safety hubs (floater) allowed.
- Solid steel axles only.
- All additional components must be steel, except lowering blocks, axle caps, U-joint caps, and one-piece drive flange.

11.13 BUMPERS:

- (See diagram)
- Steel bumpers must be on front and rear and welded, or securely mounted with minimum .375-inch bolts.
- Rear bumper must be capped, constructed of minimum 1.25-inch O.D. tubing with 0.095-inch wall thickness, (similar to diagram), maximum 6-inches beyond rear deck, no wider than 5-inches outside of rear frame rails.
- If wider than 5-inches outside rear frame rails, must be bent forward 90 degrees, or constructed in a loop design.
- Must have at least one upright, minimum 1.25-inch with 0.065-inch wall thickness, from bumper to fuel cell guard.
- Two-bar front bumper must be a minimum 1.25-inch O.D. tubing with minimum 0.065-inch wall thickness (maximum 0.095 inch) mounted frame-end to frame-end, no wider than width of material outside frame horns and with bottom loop parallel to ground.
- Top bar must be directly above the bottom bar, minimum 6.5 inches apart, measured center to center.
- All bumpers and rub rails must be capped with no sharp edges

11.14 TIRES/WHEELS:

- Any 8-inch tire, race or D.O.T allowed.
- No chemical softening or conditioning of tires.
- Tires may be ground, siped or grooved.
- No re-caps.
- All wheels must be unaltered,

- 2, 3 or 4-inch backspace.
- No wheel adapters.
- No bleeder valves.
- May use bead locks.
- External, steel bead lock only and it cannot make wheel any narrower than 8-inches and no wider than 8.75-inches.
- Must use only steel bolts.
- Foam type or securely bolted plastic outer mud cover allowed on right side wheels.
- Outer mud cover mounting tabs and rings must be integral to the wheel or bead lock or be securely welded to the wheel.
- Must use minimum 1-inch O.D. steel lug nuts

11.15 BRAKES:

- Must be steel approved OEM, operative four wheel, drum or disc.
- Must maintain minimum OEM dimensions for hubs/rotors and calipers, cannot be lightened.
- No oil bath front hubs.
- Bolt pattern may be changed.
- Larger studs allowed.
- Rear rotors may be aftermarket 0.81-inch thickness (new).
- Vented solid surface rotors only, no scalloped or ceramic coated rotors.
- No brake shut-off or pressure sensitive devices.
- One front to rear proportioning device allowed.
- Brake lines must be visible.
- Rear caliper brackets must be welded or bolted solid to rear-end housing

11.16 EXHAUST:

- Round tube headers only.
- All primary header tubes must enter directly into one collector, at same point, at the end of the header.
- Turn down recommended.
- Non-stepped, painted headers only.
- No heat wrap.
- No exhaust sensors, merge collectors, crossovers, inserts, cones or balance tubes.

11.17 FUEL SYSTEM:

- Racing fuel cell required, maximum 32-gallon capacity.
- Must be in a minimum 20-gauge steel container.
- Must be securely mounted behind the rear axle, between rear tires, minimum four inches ahead of bumper, minimum 10 inches above ground.

- Must mount with minimum 1-inch square tubing or two solid steel straps around the entire cell, two inches wide and 0.125-inch thick.
- All cell mounts must be steel, securely welded to frame/cage.
- Protective tubing must cover the rear and extend past both sides of the cell.
- No part of cell shall be lower than protective tubing.
- Fuel cell vents, including cap vent, must have check valves.
- If the fuel cell does not have an aircraft style positive seal filler neck/cap system a flapper, spring or ball type filler rollover valve is required.
- Fuel shut-off recommended.
- Pick-up must be on top or right side of the cell.
- One fuel filter allowed.
- Mechanical OEM type push rod fuel pumps only.
- Maximum 0.100-inch-thick carburetor gaskets on all engines.
- Any adapter/spacer maximum 1-inch thick allowed.
- FUEL: Pump gas only, no racing fuel allowed.

11.18 WEIGHT:

- Minimum weight limit of 2,500 pounds, no tolerance, after race with driver in car.
- No ballast and/or loose objects in the driver compartment, above the interior deck or outside body.
- Ballast must be securely mounted to frame or roll cage and painted white with car number on it.
- Must be attached with at least two 0.5-inch bolts.
- No titanium, magnesium, carbon fiber or tungsten products.
- Exceptions are: carbon fiber rock guard and hood scoop.
- Solid steel fasteners only.

11.19 BATTERY/STARTER:

- One 12-volt battery only.
- No lithium batteries.
- Must be securely mounted between frame rails, and the positive terminal must be covered.
- Starters must bolt on block in OEM location and directly engage flex plate/flywheel.

11.20 GAUGES/ELECTRONICS:

- No cell phones, unapproved cameras, transmitting or listening devices (exception is one-way Race Receiver radio by officials),
- No electronic monitoring computer devices capable of storing information except recall tach.

- 12-volt ignition system and HEI distributor only. •Ford/Chrysler may use a HEI distributor.
- No billet distributors or crank triggers.
- Ignition rotor, cap, coil and module must remain OEM appearing.
- No unapproved or additional ignition accessories allowed.
- All components must be out of reach of the driver.
- All wiring must be visible for inspection.
- Only gauges allowed are oil pressure, fuel pressure, brake bias, water temperature and tach. OEM type alternator with internal regulator allowed.
- No electronic traction control devices.

11.21 TRANSMISSION/DRIVE SHAFT:

- All forward and reverse gears must be operational, plus a neutral position.
- With the engine running and the car in a still position, the driver must be able to engage the car in gear and move forward, then backward.
- OEM production transmissions.
- Bert, Brin, Falcon style race transmissions allowed.
- No reverse mount starters allowed.
- No in and out boxes or quick-change devices allowed.
- One steel or aluminum OEM or OEM replacement flywheel or flexplate allowed, must be bolted directly to the end of the crankshaft.
- Automatic: Two or three speed, OEM production case with a functioning OEM appearing pump.
- Aluminum OEM bell housing may be replaced with aftermarket explosion-proof steel or aluminum bell housing.
- Original OEM bell housing must have approved scatter shield constructed of minimum 0.125-inch by 3-inch steel, 270 degrees around flexplate.
- Only external lines allowed are for transmission cooler.
- May use a splined drive flange coupler or torque converter (10-inch minimum) only.
- Manual: Three or four speed, OEM production case and have a working 7.25-inch minimum diameter, steel and/or aluminum, single or multi-disc clutch and pressure plate bolted directly to flywheel/flexplate.
- These components must rotate, consistent with engine rpm, while the car is in any gear.
- Must use explosion-proof steel bellhousing with one hole for throw out bearing lever or hose, must be 270 degrees around top of clutch and flywheel/flexplate area.
- Hydraulicclutch pedal allowed with manual transmission only.
- Drive Shaft: Steel slip-yokes only.
- Minimum two inch diameter, white, steel drive shaft. 360- degree drive shaft loop required and must be constructed of at least 0.25 inch by two inch steel, or one inch tubing, mounted six inches back from front U-joint.

11.22 ENGINE COMPARTMENT:

- Rear of the engine (bell housing flange must be mounted at least 72 inches forward from the centerline of the rear axle.
- Engine offset must be kept within two inches of the centerline of the front cross member with engine level.
- Minimum 1 inch engine height from ground to center of crankshaft.
- V-belt aluminum or steel pulleys only.
- Copper/brass or aluminum radiator only and must be mounted in front of engine.
- No vacuum pumps, no remote oil filters

11.23 CARBURETOR®

- One 2-barrel carburetor or one single inlet 4-barrel carburetor.
- Choke butterfly may be removed. "I spacer allowed. 2bbl to 4bbl adapters allowed.
- No fuel injection.

11.24 INTAKE:

- Any dual plane NON air gap intake allowed. •Gasket matching allowed.
- Gasket matching shall not extend more than 1" into the ports.
- Edelbrock Aluminum Performer intakes are acceptable as follows:
- No grinding or removing any castings or numbers.
- GM SBC Performer # 2101 or #2701 #2116 #2716 #7116.
- Ford 260-289-302 V8 Performer # 289. Ford 351M/400 V8 Performer # 400.
- Ford 351 Cleveland Performer # LB351-4V.
- Ford 351 Windsor Performer # 351W.
- Chrysler 318/360 Performer # 318/360 5.19

11.25 EXHAUST:

- Cast iron exhaust manifolds or headers allowed (see item 16 for specifics)

11.26 CYLINDER HEADS

- Unaltered OEM cast iron or aftermarket stock replacement cylinder heads only.
- GM or stock style replacement cast iron Vortec heads allowed.
- Vortec heads shall use Edelbrock Performer Vortec intake manifold # 2116 #2716 #7116
- Cylinder heads must reflect casting numbers in their original form.
- Maximum Intake and Exhaust valves: 2.02" maximum intake valves. 1.60" maximum exhaust valve.
- Allowed stock replacement heads.
- These are bare head part numbers.
- You can use the comparable "assembled" head.

- Engine Quest # CH350H EPWI 175679, 175769,
- World Products #043600 2.02 intake valve /1.60 exhaust valve.
- Dart Iron Eagle # 10120010, 10220010
- World Products S/R Torquer # 042660, 042670 •Summit Racing # 152123, #151124, EPWI # 175672G, 175762.
- UNALTERED MEANS THAT OTHER THAN GASKET MATCHING THE INTAKE AND EXHAUST PORTS SHALL REMAIN UNTOUCHED.
- VALVE JOBS, GUIDEREPAIR, MACHINING FOR GUIDE PLATES AND RESURFACING ARE ALLOWED.
- IF THE CYLINDER HEAD NEEDS SOME OTHER KIND OF REPAIR PLEASE CONTACT THETECH PERSON OR ABOARD MEMBER TO SEE IF THE REPAIR WILL BE ALLOWED.

11.27 ENGINES:

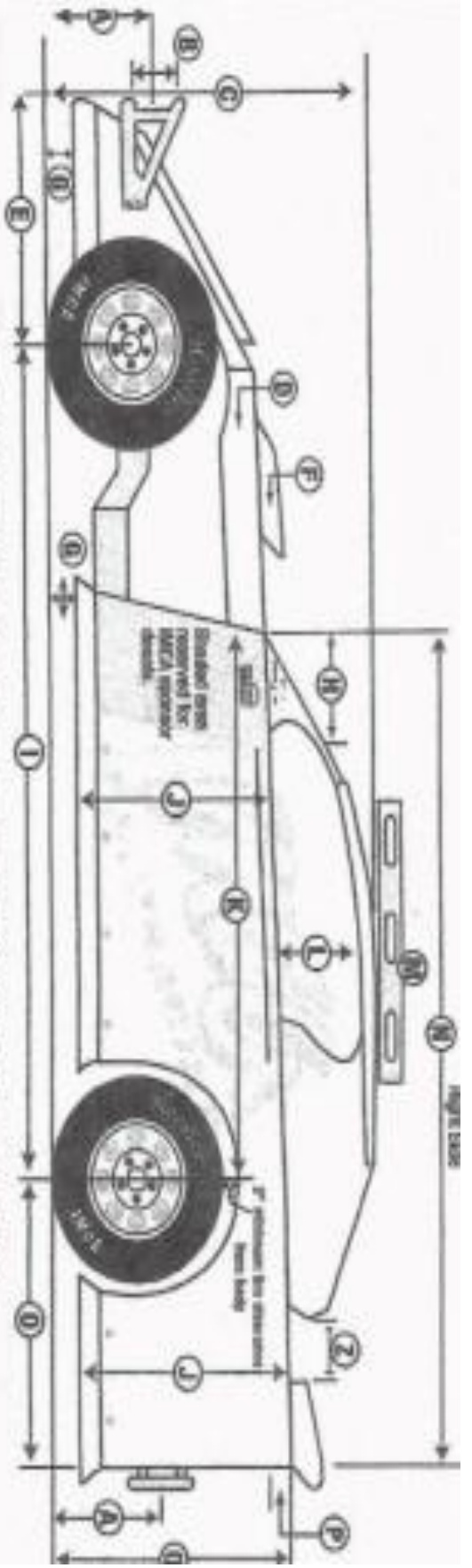
- Factory engines run on automotive grade pump gas or avgas only, no race fuel.
- 100 Octane maximum rating.
- CRATE ENGINE OPTION: Must use unaltered GM 602 crate engine.
- OPEN: OEM cast iron blocks only.
- Maximum cylinder bore size:
- Chevy 350- 4.060, No 400cid allowed.
- Ford 351-4.060, 400M allowed. Dodge 360 - 4.060. •Max compression ratio 9.5 to 1.
- No porting or polishing allowed.
- No pop-up, dome, or hemi pistons allowed.
- Flat top or dished pistons only.
- Hydraulic cams allowed.
- Roller cams, roller rockers, or lifters allowed
- Stamped steel roller rockers are not allowed.
- Aftermarket stock length replacement connecting rods and stock stroke replacement cast crankshafts may be used.
- Connecting rods shall be identical to a scat stock replacement forged I beam Part:#3icr5700p.
- Crankshafts shall be identical to a scat pro stock cast crankshaft Part: # 9- 103750 or ascat 9000 series crankshaft- Part: #9-350-3480-5700.
- Stroke must match the block.
- Hydraulic cams and lifters only.
- Firing order must be stock.
- No polishing of rods.
- Stock replacement rods and cranks only.
- Chain and sprocket style timing chain only.
- Mechanical or electric fuel pumps allowed.

- Electric pumps must have oil pressure shut off switch.
- Racing oil pans allowed.
- *Violation of the cubic inch limit will result in disqualification, loss of all points for the season.
- Conventional flat tappet cam and lifters only, cannot alter lifter bores.
- OEM firing order cannot be changed (GM: 1-8-4-3-6-5-7-2).
- Steel oil pans only.
- Racing oil pans allowed.
- Cooling lines allowed on aluminum intakes.
- Unaltered OEM type harmonic balancer only.
- OEM type steel or aluminum water pumps only.

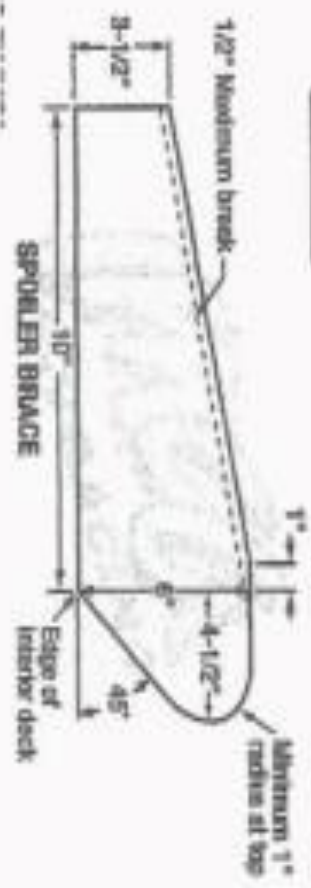
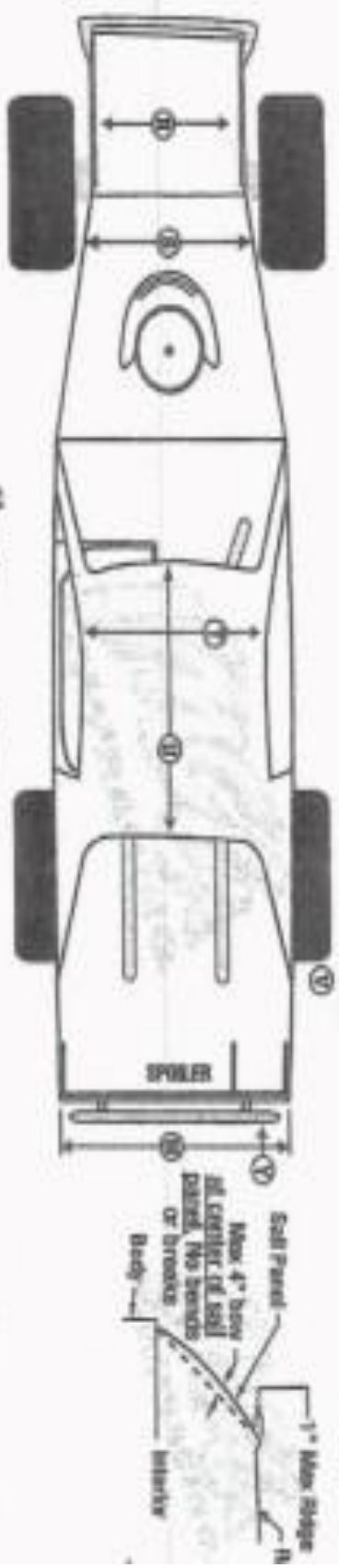
11.28 TCR Sport Mod Body Dimensions:

- All body measurements are max. unless otherwise specified.
- Dimensions have zero tolerance.
- A 20" max. 16" min. (ground to center of bumpers, front and rear)
- B 6.5" min. (center to center)
- C 54" max. roll cage, 56" max. roof; 42" min. both.
- D Hood 6" max. drop (sides), sealed off from driver's compartment and max. 6" rake.
- E 36" max.
- F 6" max.
- G 4" min. ground clearance; Door may extend max. 6" past block at bottom, both sides.
- H 19" max, must be same on both sides.
- I 112" max. 108" min.
- J 31" max. 24" min.
- K 72" max. or not past back of block, at top. Left side may extend forward to cover foot box.
- L 18" max. 12" opening, both sides.
- M With level, must have no more than 2" clearance at rear of roof and 5" at top front.
- N 120" max. 106" min.
- O 48" max. 34" min.
- P Interior slope is 6" max. front to rear and flat across.
If flat at front half of the interior you have used up 50% of your 6" so from behind driver to rear you may only have 3".
Top of the interior must be flush with top of doors and quarters.
Optional escape hatch from driver to passenger door allowed.
- Q 38" max. 28" min.

- R Min. 24" nose must be flat and flush with sides. •S 66" max. 24" min. must cover the radiator.
 - T 52" max. 44" min. (includes sides)
 - U 56" max. 47" min. Tires max 1" inside body both sides.
 - W 66" max. 53" min. same front to back
 - X 43" max. 24" min.
 - Y 3" minimum REAR FILLER PANEL: 8" min. /90-degree angle.
Must be solid, attached to deck, extend to quarter panels, securely fastened.
 - Z 2" minimum tire clearance from body 1" max.
- SPOILER BRACES:
 - Maximum 3 total.
 - Bottom edge of the spoiler brace must be flush with rear edge of the rear deck.
 - SAIL PANELS:
 - Must slope down from the rear edge of the roof and be within the confines of these dimensions and the same on both sides.
 - Must mount to outside and can be no wider than interior deck.
 - Must mount under roof sides.
 - SPOILER 10"6 " 4-1/2" 1" 1/2" Maximum break 3-1/2" Minimum "1 radius at top Edge of interior deck 45°.
 - SPOILER BRACE



All body measurements are max. unless otherwise specified. Dimensions have zero tolerance.



Interior deck

Must mount under roof sides.

Edge of interior deck

Right Side

- A 20" max. 16" min. (ground to center of bumpers, front and rear)
- B 6.5" min. (center to center)
- C 54" max. roll cage, 68" max. roof; 42" min
- D Hood 6" max. drop (sides), sealed off from driver's compartment and max 6" rake. 36" max.
- E 6" max.
- F 4" min. ground clearance; Door may extend max. 6" past blocks at bottom, both sides.
- G 19" max., must be the same on both sides.
- I 112" max. 108" min.
- J 31" max. 24" min.
- K 72" max. or not past back of block, at top.
Left side may extend forward to cover foot box.
- L 18" max. 12" opening, both sides.
With level, must have no more than 2" clearance at rear of roof and 5" at top front.
- N 120" max. 106" min.
- O 48" max. 34" min.
- P Interior slope is 6" max. front to rear and flat across. flat at front half of interior you have used up 50% of your 8" from behind driver to rear you may only have 3". Top of interior must be flush with top of doors and quarters. Optional escape hatch from driver topaz.
- Q 38" max. 28" min.
- R Min. 24" nose must be flat and flush with sides.
- S 66" max. 24" min. must cover radiator interior
- T 52" max. 44" min. (include sides)
- U 56" max. 47" min.
- V Tires max 1" Inside body both sides.

- W 66" max. 53" min. same front to back
- X 43" max. 24" min.
- Y IMCA decal required in filler panel
- Z 3" maximum

SPOILER BRACES: Maximum 3D total,
Bottom edge of spoiler brace must be flush
with rear edge of interior deck. angle.

Must be sold, attached to the deck, extend quarter panels, securely
fastened.

SAIL PANELS: Must slope down from rear edge of roof and be within
confines of these dimensions and this on both sides, must mount to outside
of, and can be no wider than interior deck.

Must mount under roof side.