

# Irwindale Race Trucks Rules 2020-2022

Any modifications not covered in these rules will not be allowed unless approved by the Irwindale Speedway Tech Official in writing. Modifications to any spec part is not permitted.

## 1. COMPETING MODELS

(a) Competing models as selected by Irwindale Speedway: the following trucks are the only eligible models approved for competition: Chevy S-10, Ford Ranger, and Dodge Dakota, Toyota Tacoma.

## 2. GENERAL TRUCK AND BODY REQUIREMENTS

(1) Trucks must be neat appearing. All panels must fit properly and be free of sharp edges.

(2) Bodies must be standard as produced by manufacturer. (Trailer Products)

(3) Body mounting and body location must remain in stock configuration.

(4) Flat or slab sided or deformed bodies not permitted.

### (b) Floorboards:

(1) All holes in interior must be sealed.

(2) Floorboard must be a minimum of 16-gauge magnetic steel.

### (c) Interiors:

(1) Interior must be completely enclosed.

(2) Interior panels must be trimmed neatly around roll cage and sealed for fire protection.

(3) Interior panels except crush panels must be fabricated of 24-gauge magnetic steel minimum.

### (d) Overall Truck Weight:

(1) Minimum weight all trucks, 2,700 pounds, including driver before the race.

(2) Maximum left side weight 55.0% at all times including driver.

(3) Added weight must be in block form of no less than ten (10) pounds.

(4) All added weight MUST be painted white with the truck number on it.

- (6) All added weight must be securely bolted in place with a minimum ½-inch diameter.
- (7) Weight may not be located inside the driver's compartment.

### 3. DETAILED TRUCK BODY REQUIREMENTS

- (1) Holes for ducting air allowed in the front air dam for air inlet only.
- (2) All support brackets and bumpers must be mounted behind nose.
- (3) Front nerf bars, or external reinforcing bars are not permitted.
- (4) Nose widths and dimensions must remain stock.
- (5) All trucks must use a spoiler that is 6-1/4 inches in height and 56 inches in width.
- (6) Spoiler must be attached and centered to the rear of the bed. Spoiler can not be curved.
- (7) Rudders or braces in front or behind of the spoiler are not permitted.
- (8) Rear spoiler must maintain a 65 degree angle.

#### (c) Windshields:

- (1) A clear Lexan polycarbonate windshield with a minimum 1/8 inch thickness must be used.
- (2) A minimum of one metal brace support must be mounted in the center windshield.
- (3) Side window openings must retain original size.
- (4) Door windows may not be used.
- (5) A-post deflector must be of clear Lexan polycarbonate and may not protrude outward.
- (6) The deflector must not be longer than twelve (12) inches in length.
- (7) Mandatory left side window net required. Net must be a rib type with one (1) inch wide nylon material. The window net must fit tight and secured with a lever-type quick release latch at top.
- (8) Window net must have a manufacture's date tag within 5 years.
- (9) All trucks must have only one (1) rear view mirror. Spot mirror permitted and must not extend outside of the body.
- (10) Rear deck lids and bed covers must remain flat to top of rear quarter panels.

(11) Bumper supports or reinforcements may only be added using stock attachment points and may not extend outside the body.

**(d) Identification and Marking:**

- (1) Numbers must be at least 20" high and on both sides of the truck in the center of the door.
- (2) A number 22" in height must be painted on the roof, reading from the passenger side.
- (3) Gold or silver foil numbers are not permitted.
- (4) Block type numbers six inches in height must be attached to the right front headlight area, and the right rear taillight area.

**4. GENERAL ENGINE REQUIREMENTS**

(a) Only engines of a type approved by Irwindale Speedway are allowed.

(b) Spec part required: spec motor, Vortec, GM part number: 12486041 or GM part number: 88958602. All competition-approved motors must be purchased through approved spec motor suppliers.

- (1) Engine must be purchased complete and sealed from approved spec motor supplier.
- (2) Engine is sealed on intake manifold, timing cover, and oil pan. Seals may not be broken or removed except by approved spec motor supplier or Irwindale Speedway Tech Official.
- (3) Engine may not be modified in any way and must remain intact as originally sold by the approved spec motor supplier.
- (4) Only approved spec motor suppliers are authorized to perform repairs to any engine requiring the breaking or removing of engine seals.
- (5) Only approved spec motor suppliers are authorized to re-assemble and reseal any spec motor, including but not limited to:

(A) Dis-assembled during post-race inspection.

(B) Any engine having a broken seal(s). Any engine with a broken seal is subject to inspection of internal components as deemed necessary by approved spec motor suppliers.

(e) The following are approved spec motor suppliers:

1. The Loe Pit Stop – 19425 Santa Fe Way, Shafter, CA 93263 – 661-829-2140
2. GM Performance - any authorized GM dealer
3. JMS Racing Engines, 5450 Peck Rd., El Monte, CA 91732 – 626-579-4567

4. Van Dyne Engineering, 17696 Metzler Lane, Huntington Beach, CA 92647 – 714-847-4417

#### 5. **DETAILED ENGINE REQUIREMENTS**

- (1) The centerline of crankshaft must remain centered in chassis.
- (2) All engine mounts must be securely bolted.
- (3) A P&G cubic inch measurement tool may be used to evaluate cubic inches without tear down.
- (4) The maximum compression ratio is 9.1 to 1 on all engines.
- (5) Compression ratio will be calculated by Irwindale Speedway Tech Officials.
- (6) Stock OEM pistons only, GM part number 12361371.
- (7) Stock OEM rods only, GM part number 10108688.
- (8) Valve springs: seat pressure cannot exceed 85 pounds.
- (9) Valve springs must be GM part number: 10212811.
- (10) Harmonic balancer-GM part number 12555879 or GM 12551537
- (11) Rocker arms must be GM part number: 10089648, 1.5 to 1 ratio. Rocker shaft poly or nylon lock nuts permitted.
- (12) GM part number 1286041 intake manifold, Performer Vortec, Edelbrock part number: 2116 or GM part number 8895602 as supplied.

#### (6) **Carburetor:**

- (1) Holley List 4412, two-barrel, 2300 Model, 500 CFM carburetor is the only approved carburetor. Approval of carburetor shall be conducted on a race-to-race basis.
- (2) Any carburetor modification not specifically covered in the rules will NOT be permitted.
- (3) Choke linkage actuator rods may be removed.
- (4) Choke horn must not be removed. Choke horn butterfly plate must be removed.
- (5) Boosters height must remain standard.

- (6) Two (2) throttle return springs mandatory.
- (7) A single aluminum adaptor with (2) square cut holes.
- (8) All trucks must have one carburetor mounting stud or bolt, and one adjacent adapter mounting stud or bolt drilled to accept a wire type seal.

**(7) Air Intake: (air filter):**

- (1) Spec part required: air cleaner assembly, K & N part number: 60-1150.
- (2) All air must be filtered through the filter element, K&N part number E-1200.
- (3) Only round uncoated metal air filter housings allowed.
- (4) Controlled vacuum leaks are not allowed.
- (5) Ducts or hoses to the air cleaner or element are not permitted.

**6. ENGINE/TRUCK ELECTRICAL SYSTEM**

- (1) Spec part required: distributor, GM part number: 93440806.
- (2) Coil, module and magnetic pick-up replacements permitted that do not exceed stock spec part performance specifications.
- (3) Driveline mounted or engine mounted alternator allowed.
- (4) The self-starter must be in working order and mounted in stock location. (2) All trucks must start under their own power.
- (5) The approved battery must be located in a steel battery box.
- (6) Twelve-volt system battery maximum.
- (7) All switches must be located within easy reach of the driver.
- (8) A labeled (minimum ½ inch letters) on/off master switch is required and must be located in the driver's compartment so that it is accessible from both sides of the truck.
- (3) The on/off master switch must be connected to the battery cable in such a manner that would cut off all electrical power to the truck.
- (4) Any truck found with an electronic traction control device will be suspended for 1 year and be fined a minimum of \$500.00, and result in loss of all championship points.

**(g) Radios:**

- (1) Two-way radio communication between driver and crew will be mandatory.
- (2) During the race event, each competitor must have a spotter in the designated location and that spotter must monitor Irwindale Speedway race control.
- (3) During practice, each competitor must have a spotter.
- (4) One truck radio, one wiring harness, and one antenna only.

**7. ENGINE COOLING SYSTEM**

- (1) Engine cooling system must be acceptable to Irwindale Speedway Tech Officials.
- (2) No anti-freeze in cooling.
- (3) Approved OEM stock type water pumps only.
- (4) Water pump pulley may be changed and must be V-belt type pulley.
- (5) Electric fan are permitted.
- (6) Radiator core dimensions: 34-1/2 by 24-1/4 by 1-7/8 inches, plus or minus 1/8 inch.

**8. ENGINE EXHAUST SYSTEM**

- (1) Spec part required: headers STI part number: 9312.
- (2) Pipes must securely attach to the chassis with bolts in a minimum of two separate locations.
- (2) Exhaust pipes must extend past driver and either turn down or to outside of truck.
- (3) Tri-Y header not permitted.
- (4) A heat resistant floor mat may be used in the driver's compartment.
- (5) Muffler must be capable of maintaining a maximum of 90 DECIBALS AT 100 FEET.
- (6) Muffler must be in place at all times.

**9. DRIVE TRAIN**

**(a) Transmission:**

- (1) Spec part required: GM Power Glide automatic transmission. Transmission assembly must remain unmodified from the spec transmission requirements.
- (2) Transmission must not weight less than 100 pounds with fluid.
- (3) Transmission shifter/selector boot seal required.
- (4) Internal parts may not be lightened or modified.
- (5) The approved flex plate is GM part number 14088765 or equivalent aftermarket with the same size, shape, and weight.
- (6) Permitted transmission changes allowed.
  - (A) Output bushings may be replaced with bearings to accommodate alternator belt loads.
  - (B) Any transmission hardened input shaft.
  - (C) Band material and clutch plate material may be any material. (D) Gear ratio must be 1:82 or 1:76.
  - (E) Pan extended for right side pick-up.

**(e) Drive Shaft:**

- (1) Spec part required: drive shaft, STI part number: 0548, three (3) inches in minimum diameter, minimum thickness of 0.060 inch.
- (2) Only one-piece magnetic steel drive shaft permitted.
- (3) It is mandatory that two 1/8 inch x 1-1/2 inch steel drive shaft hoops front and rear be installed in a safe manner and installed so as to prevent the drive shaft from becoming dislodged and falling onto the race track.
- (5) All drive shafts must be painted white.
- (6) All drive shafts must have truck number painted on tubing. (7) No aluminum drive shafts.

**(f) Rear Axle:**

- (1) Spec part required: rear axle housing including all mounting brackets and suspension mounting brackets, STI part number: 0560.
- (2) The rear axle housing must remain stock to original specs. .188 wall GN housing. All mounting and suspension mounting brackets must remain in spec location.
- (3) Axle housing must be made of magnetic steel.

- (4) Gear assembly must remain unmodified from the spec gear requirements.
- (5) Rear end gear ratio must be 456 or 457, approved gears are as follows:
- (6) Polishing or coating of ring and pinion is not allowed.
- (7) Gears must remain as produced, no lightening or back cutting allowed.
- (8) No "AX" cut gears or factory outside machine gear set.
- (9) Steel mini spools only.
- (10) Solid magnetic steel rear axle. Minimum OD 1.200" solid
- (11) Rear end pinion must remain centered between left and right hubs.
- (12) Third member including bearing retainer and yoke must be made of magnetic steel.
- (13) No cambered rear ends.
- (14) No crowned rear axles.
- (15) Rear axle coolers not permitted.
- (16) Drive plates must be made of magnetic steel.
- (17) Wheels: Circle Wheel P/N 03580550225.5 or Diamond Wheel 15080-18-35-225-6-00 for black AND Circle Wheel P/N 04580550225.5 or Diamond Wheel 15080-18-35-225-2-00 for chrome.

Diamond Racing Wheel has bought Circle Racing wheel. Wheels must be 15-inch steel wheels with a maximum 8-inch rim width, minimum weight 25# and only 2.25" back space.

- (A) Solid heavy-duty 5/8-inch steel studs and 1" hex lug nuts must be used on all four wheels.
- (B) The use of bleeder valves is not permitted. One valve stem per wheel.
- (C) Wheel studs must protrude past lug nuts.
- (D) All tire/wheel balance weights must be installed facing towards the inside of truck.
- (E) Wheel spacers are not permitted.

### **Tires:**

- (1) Tires must be purchased from Irwindale Speedway.
- 2) Approved tire is Hoosier 970 - 8". No Star tires.



- 3) Tires will be scanned and logged to each truck.
- 4) Tires that have been altered by any means will not be permitted. No tire shaving.

Tire Rule:

- 1) At a competitors first event of the season he/she will be may purchase five (5) new tires.
- 2) At each race after the competitors first race he/she will be allowed one (1) recorded tire.
- 3) You must race the tire the night you log/scan it in for competition.
- 4) You must qualify and start the race on logged/scanned tires.
- 5) You must practice on 970 tires.
- 6) Flats or damaged tire in an accident must be presented to Track Officials before the end of the night to be evaluated.
- 7) Irwindale Speedway reserves the right to impound tires for storage between events.

## **10 - FRAME REQUIRMENTS**

- (a) Frame/chassis must remain stock as produced by Spec Truck Inc. Frame/chassis repairs must maintain original specifications.

## **11. SUSPENSION**

- (A) Camber and caster may be changed by any conventional method.
- (B) Front coil over style shocks/springs shall be allowed on the front of the truck. (2) Single coil over spring only.
- (C) Rear lower trailing arms must be aluminum.
- (D) The rear springs must mount on the rear axle in equal distance left to right. (2) Rear coil over style shocks/springs shall be allowed in the rear.
- (E) Single coil over spring only.
- (F) Rear sway bars are not permitted.
- (G) GM part number: 015677614, one (1) inch outside diameter.
- (H) Front sway bar adjuster must attach to lower control arm at the lower shock bolt.

(I) Track bar must remain in stock location.

**12) SHOCKS** - the following shocks are permitted only:

(A) AFCO, Series 13.

(B) QA1-Series 62.

(C) Carrera, Series 67.

(D) Advanced Racing Suspensions, 2000 Series, Non-Adjustable. (2) Only one shock per wheel is permitted.

(E) Shocks absorbers and components must be used as supplied by the manufacturer and all components must be used in only their respective manufacturer's shock absorber. Modification or changes to the shock absorber and internal components will not be permitted.

(F) All downward chassis movement while the race car is in competition must be limited only by the normal increasing stiffness of the springs or the bottoming of the chassis against the race track, whichever occurs first. NO BUMP STOPS.

**A-Frames:**

(1) Upper and lower A-arms must be made of magnetic steel and remain stock length.

(2) A-arms cross-shafts must be magnetic steel or aluminum.

(3) Upper A-arms may be shimmed up to 1 inch off mounting surface.

(4) Upper ball joints must be Afco part number: 20032-1 and remain unmodified.

(5) Upper A-arms must be the spec A-arms and must remain unmolested.

(A) L/F Upper A- Arms must be 9" Afco part number: 20009. (B) R/F Upper A- Arms must be 8" Afco part number: 20008.

(6) Lower A-arms must be the spec A-arms and must remain unmolested.

(7) Lower A-arm adjusting rods must be aluminum.

**(B) Spindles, Wheel Bearings and Hubs:**

(1) Spec parts required: right front spindle, GM 18021053; left front spindle, GM 18021052.

(2) Spec parts required: rear axle hub, AFCO part number: 30532. (3) Spindles must remain stock OEM.

**(C) Tread Width and Wheelbase Requirements:**

- (1) Front tread width shall not exceed a maximum of 70 inches measured from outside of rim at bead of tire to outside of rim at bead of tire.
- (2) Rear tread width shall not exceed a maximum of 69 inches measured from outside of rim at bead of tire to outside of rim at bead of tire.
- (3) Wheelbase minimum is 108 inches on one side, and plus or minus 1/2 inch on opposite side.
- (4) No part of the chassis shall be lower than minimum 4 inches at any time, measured without the driver.
- (5) Side skirts and body must maintain a minimum 4 inches height at all times, measured without the driver.
- (6) Approved front nose and lower air dam must maintain a minimum ground clearance of 4 inches, measured without the driver.
- (7) No adjustable shock mounts.

**12. STEERING**

- (a) Steering box must be OEM. No Delphi boxes.
- (b) Center top of steering wheel must be padded with 2 inches of resilient material. (e) An approved all metal quick-release steering wheel coupler must be used.
- (c) All steering shafts are required to have a collapsible steering section, part number: 1216. Steering shafts are required to have two (2) unsupported universal joints.
- (d) No Delphi style steering boxes allowed.

**13. BRAKES AND COOLING COMPONENTS**

- (1) Spec parts required: front brake caliper must be steel single piston OEM.
- (2) Spec parts required: rear brake caliper must be steel single piston metric OEM.
- (3) Spec parts required: front brake rotors, GM part number: 18060211.
- (4) Brakes must be in a good operating condition on all four wheels at all times.
- (5) Only hanging type brake pedal/linkage assembly is permitted.

(6) Any brake master cylinder may be used. Any master cylinder located inside the driver's compartment must be covered.

(7) One adjustable proportioning brake valve may be used.

(8) No carbon fiber components. No titanium components.

(9) Brake cooling ducts only permitted.

#### **14. FUEL**

(a) All trucks must compete with fuel dispensed from the track gas station only.

(b) All fuel must be 110 octane and run as dispensed.

(c) No cooling or icing of any fuel or fuel component.

(d) No fuel additives.

#### **16. FUEL SYSTEM**

(a) Fuel Safe fuel cell SM115, with 15 gallon capacity.

(b) The fuel cell must be completely enclosed in a steel container (box), minimum 22-gauge.

(c) Fuel cell must maintain a minimum height of 9-1/2 inches, measured from ground level, without the driver.

(d) A steel framework must be fabricated from a minimum of 1-inch x 1-inch square tubing.

(e) Fuel cells must be securely mounted behind the rear axle, and between the frame rails.

(f) A fuel cell protector bar made from a minimum of 1-1/2 inch x .090 inch steel tubing is required.

(g) Fuel cell vent hose must extend to outside at left rear taillight area.

(h) One fuel line from fuel cell to fuel pump is allowed. Maximum diameter 5/8 inch ID.

(i) OEM type mechanically driven fuel pump only.

(j) No electric fuel pumps permitted.

(k) Fuel pump must be mounted on engine in stock location.

(l) Fuel must be stored in approved containers.

## 16. PERSONAL SAFETY EQUIPMENT AND ROLL BARS

- (1) For all safety devices it is the responsibility of the driver, not Irwindale Speedway, its officers, or its agents to ensure his/her safety device systems are correctly installed, maintained, and properly used at all times.
- (2) As with all safety items, Irwindale Speedway strongly recommends that, the driver should carefully study all manufacturer's installation and usage guidelines and adhere to these recommendations to the highest extent possible.
- (3) It is recommended that at all times, the driver wears a driving suit and gloves of fire resistant material that effectively covers the body.
- (4) It is recommended that driver's suit be of the best quality fire protection available. It is also recommended that during an event, practice, or qualifying a driver wears the following: fire resistant shoes and socks, fire resistant hood, fire resistant underwear.
- (5) It is recommended that all trucks have a built-in, fully charged fire suppression system.
- (6) All entrants should have a 10-lb. fire extinguisher in their pit area.
- (7) Snell SA2010 or SA2015 helmet or newer required.
- (8) Full face helmets with Lexan face shield recommended.
- (9) Nomex helmet skirt, and Nomex covered chinstrap recommended.
- (10) At all times drivers must connect their helmet to an approved head and neck restraint device/system which is SFI-approved and acceptable to track officials.
- (11) A quick release seat belt no less than three (3) inches wide is mandatory. Both ends of the lap belt must be fastened to the roll cage with high quality bolts, not less than 3/8 inch in diameter.
- (12) Shoulder harness must be no less than three (3) inches in width and must come from behind and below top of driver's seat. Y-type shoulder harnesses not permitted.
- (13) A center crotch belt must be used. It must be a minimum of two (2) inches wide and mount to the roll cage or seat mount.
- (14) Where belts pass through the seat edges, the edge must have a grommet or be rolled to prevent belt from being cut.
- (15) All belts must connect in a single latch, at the lap belt.

(16) Seat belt restraint system may not be used beyond two (2) years after their date of manufacture.

(17) A professional racing seat is required. No fiberglass or plastic seats.

(18) Seats must be mounted with a minimum of six (6) 3/8 inch grade 5 bolts. Two bolts at front of seat on bottom, two at bottom rear or two lower back of seat, and two at #7 shoulder bar at upper seat back. Seats must have a built-in padded headrest behind head. It is recommended that the seat also offer rib protection and have leg extensions. Headrest recommended on sides of head.

(19) Roll cage must be constructed of tubing, 1-3/4 inch x .095 inch minimum.

(20) A minimum of four (4) door bars is required on the both the left and right sides of the truck. All door bars except the bottom door bar must extend into the door skin and be convex. The bottom bar may be straight with a minimum of (3) convex door bars required on each side of truck. The door bars must have a minimum of six (6) vertical supports per side with two (2) equally spaced between each door bar.

(21) The driver's side door bars must be plated with a steel plate of not less than 1/8-inch material. The minimum size for this plate shall be 24 inches in height and 32 inches in length. The plate may be a single plate or several plates cut and welded into the door bar gaps. All trucks with steel covering over inside door bars on driver's side must be padded. All areas of roll cage near driver and within his/her reach must be padded with approved padding.

Southwest tour trucks must run to their rules with the following adjustments:

You may run gauge a Holley 650 4 barrel on the 602 crate engine and a minimum weight of 2800# with driver and a maximum of 56% left side. Must use Hoosier 970 tire.

ASA Truck must run to their rulebook and must use a 4.56 final rear gear ratio with a 6200 rev limiter chip at all times.

**NO EQUIPMENT WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION.**

Any part of equipment found during an inspection or any other time at any event that does not meet the rules must be surrendered to the Irwindale Speedway Tech Official at that time, and will not be returned. Irwindale Speedway Tech Officials reserve the right to make final decisions in the interpretation of any rules or race procedures at any time.

2/20/20