

## **Western States Dwarf Car Association**

### 2019 GENERAL RULEBOOK

With the nostalgic look of early stock cars, Dwarf Cars are 5/8 scaled copies of 1928 to 1948 vintage American coupes, sedans and trucks. They are powered by a motorcycle engine. The bodies are scaled down versions of full size cars.

If it doesn't say it in this rule book, you can't do it!

The following are "COMMON SENSE" type rules. Our objective is to minimize rule changes. Do not attempt to build a Dwarf Car without first contacting WSDCA for rule clarification. No exotic equipment, (meaning unusual or out of the ordinary). If a car is built that does not meet the Dwarf Car specifications, it will not be a Dwarf Car. Interpretations of or amendment to these rules may be made at anytime. The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the conditions of all events, and by participating in these events, all licensees will be deemed to have complied with these rules. No express or implied warranty of safety shall result from publication of, or compliance with, these rules and/or regulations. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to participants.

WSDCA

3165 N. HOLLY DRIVE

TRACY CA. 95376

President Frank Munroe PH. (209) 832-8508

### BODY TYPES

A. There will be no special class of cars; all oval track Dwarf Cars run under the same competition.

B. Car body will be of 1928 to 1948 vintage coupe, sedan, sedan delivery, wagon, or pick-up truck. Must have been a production car. All frames and roll cages, including firewall, doors, and rear section framing, must be fabricated as a single frame unit, already forming the actual contour and dimensions of the

finished body. Sheet metal outside skins must be secured with Dzus type fasteners, or permanently attached by rivets or spot weld no more than 12" between each attachment point located at the perimeter of each panel where it meets the roll cage, firewall, or trunk framing. Skin must not bulge or gap open between attachment points. Any gap or hole exceeding 3/8" must be covered with sheetmetal, a plug, or permanent type sealant.

C. No open top cars such as roadsters or convertibles. No convertible bodies with hard tops or "T" tops. The cars must be replicas of factory stock bodies. They must have full roof of metal construction. The roof shall start at the top of the cowl in the front of the car and extend, ending at the top of the trunk. Roofs must incorporate a front and a rear window. The windows must be cut to simulate to match the original body and shall extend inward to cover the roll cage in the front and the rear. No part of the roll cage shall be exposed. All roll cage bracing must be intact, permanently welded. Enter and exit by door only. Doors must be functional and driver must be able to exit from either door safely. \*\*Roof Hatches are optional and must have positive locking device.

D. No foreign makes. Only closed top, meaning hardtop, American passenger cars or trucks.

E. All cars will be of metal construction. No fiberglass, plastic, nylon etc. No aluminum for frame or roll cage. Outer skin shall be a minimum of 26 gauge steel or .040 aluminum. Firewall between engine and manned compartment is mandatory. There must be a complete firewall, front and rear separating engine and trunk compartments from manned compartments.

F. No fenders of any type. No structure of any type to simulate or act as a fender. Doors and windows must remain in stock appearance and location. Body must be skinned to match it's type. (i.e. 3-window coupe must be skinned as a 3 window, not as a 5-window). Right and left doors must be operational and allow passage. Windows and door must be near scale size, shape and location. All doors must be hinged as to open. \*\*Windows on rear side quarter panels may be simulated.

H. Each car will have grill shell and simulated original grill matching it's body style or a simulated radiator and vertical loop mounting bar mounted in near stock location and a hood to match radiator size and body style as not to distract from overall appearance. No grill is required if simulated radiator is used. Functional radiator may be mounted in the trunk area.

I. Engine compartment must conform to scale of body length and must match contour of body where it meets the right and left side of body panels. Firewall or cowl outer skin must be stock appearance in size and shape; only inner panel may be altered.

J Any hood may be notched, bent or cut in such a manner as not to distract from the stock appearance or on car using a radiator/simulated radiator, hoods may not be altered so as to detract from neat appearance.

K Hood scoop height: no part of the hood, hood scoop, air cleaner or cowell, or any other item, shall exceed 30" measured from the bottom of the lower frame rail to the highest point of the hood, hood scoop, air cleaner or cowell. ½" tolerance is allowed. There will be no obstruction of the drivers view.

L. At the beginning of race event, all cars must have all body parts intact.

M. No airfoils, wings or streamlining of body.

## 2. DIMENSIONS

A. Maximum car height, 52", top to ground.

B. Maximum body width, 38".

C. 40" maximum body height from bottom of frame rail to top of car. 44" maximum body height from bottom of frame rail to top of car for 2012 Chassis and newer. No part of the roof area may be higher than 44". There will be no sectioning of existing chassis for the 2012 season. This rule is for NEW chassis only.

D. The slope of the roof may not exceed 3 1/2" measured from the highest point in the rear just before the main cage starts to turn downward, to the lowest point just before the main cage starts to turn downward. The slope on the front hood should remain in proportion to the rest of the body. \*\*No part of body shall exceed past the rear bumper or exceed 28" behind the center line of the rear end.

## 3. TIRES and WHEELS

A. Steel wheels only, 13" WHEEL ONLY, 7" maximum width

B. Hoosier Tires shall be the spec tire. \*\*Hoosier HTW stamped sizes: 23/7.0-13, P205, P215, P235-60D13, 50 durometer. The discontinued RC3 and Medium tires will still be allowed until they run out.

C. No softening compounds will be allowed.

D. Hoosier decals must be displayed on both sides of car.

E. Offset wheels are OK.

F. No bead locks.

G. No Battle bead style wheels allowed.

H. No alteration of the numbers or letters on the tires will be allowed and will be grounds for Disqualification.

#### 4. WHEEL BASE

A. Wheel base 73" (1/2" tolerance allowed) measured at the center of the spindle to the center of rear end housing.

B. Outside tire width not to exceed 61" (must be able to pass through 61" opening)

#### 5. FUEL

A. Emissions legal gasoline available at a gas station, pumped out of the gas pump. Maximum octane of 95. (Fuel injected engines only).

B. No nitrous oxide, no alcohol. No nitro or propylene oxide type additives.

#### 6. FUEL CELL

A. Not to exceed 5 gallons.

B. Tank must be vented so as not leak fuel in any position, non leaking cap.

C. Fuel cell must be mounted between frame rails, in trunk.

D. Fuel cell must be mounted with metal straps only.

E. Must have complete fire wall between driver and fuel cell.

#### 7. CARBURATED ENGINES

A. Motorcycle engines only. No snowmobile or other special application engines. 1250cc is the maximum allowable displacement. Any questions about approved motors, please contact WSDCA officials.

B. 1250 cc maximum, 4 cycle, 4 cylinders maximum.

C. Must be a regular production (minimum of 500 units per year)

D. Must have working starter, clutch and transmission in place.

E. Charging system optional.

F.. Must be naturally aspirated.

G.. Engine must be cooled by original intent. May use extra fans or oil cooler.

H.. Exhaust and headers must be installed so as not to detract from stock appearing hood, with the exception of side panels.

I.. Muffler are mandatory, 95 dba @ 100'.

J.. No auxiliary starter.

K. FUEL INJECTED MOTORS: No other modifications shall be allowed except the items listed below: (If it doesn't say it, then you can't do it or use it!) 1k. Motors listed below, are approved for competition in the WSDCA. Honda: 1999-2003 CBR1100XX 2000-2001 CBR929RR 2000-2006 RVT 1000R 2002-2203 CBR900F 2002-2007 CB900F 2004-2010 CBR1000RR

Kawasaki: 2000-2005 ZX12R 2003-2009 Z1000 2004-2010 ZX10R

Suzuki: 1997-2008 TL,SV,DL 1000 2001-2008 GSXR 1000 2014 NEWLY APPROVED MOTORS BELOW:

2k. OEM fuel injection only. Fuel injection may not be modified in any way from its original OEM specifications. OEM ignition systems only. No after market fuel injection allowed. After market filters are approved with any aftermarket air filter assembly with any velocity stack. 3k. After market boxes that adjust Fuel Curve, Timing and RPM, that are approved, are the only boxes that are allowed. The boxes that are approved are the Dynojet 2,3,3R and 5, The Dobek 2 brothers and the Bazzaz ZFi and the new Dobek EJK. The Dynojet 3 with the USB is allowed with no external modules plugged in. Any boxes of this type, other than those specified, will only be approved at the annual meeting. 4k. Any car that is discovered to have any other electronic devices other than those outlined above, or who has made any modifications to these allowed boxes or any part of the fuel injection, may be disqualified. 5k. Timing retard eliminators and gear position indicators are allowed. 6k. No electronic devices will be allowed in the cockpit area or adjustable by the driver. No other electronic devices that plug into engine or wiring harness are allowed. Final determination will be made by WSDCA officials. 7k. Engines must have stock bore and stroke with no more than 1 mil. over bore over the original factory specifications for the engine manufacturer. OEM bore and stroke only. (The 1 mil. over bore is intended for cleanup only, not aftermarket pistons.) Engines will be checked with a bore and stroke gauge and must not exceed manufacturer's original cc's for that motor. 8k. Unmodified OEM cylinder heads only.

9k. Cam-shafts must have stock lift and duration, adjustable cam sprockets are allowed. 10k. \*\*Cylinder cranking compression minimum 100 psi's, maximum 220 psi's per cylinder average of 4 cylinders, No variance, After 10 compression revolutions of cranking. WSDCA officials may check at any time.

\*Newly approved Motors: (No modifications allowed. Must run stock ignition box to match the year of the motor). The newly approved motors are required to be 100% stock, no modifications including electronics. \*\*It is the goal of WSDCA, that as the newly approved motors phase in, this will bring us back to a stock motor which should save money and level the playing field in the future. \*\* Suzuki: GSXR 1000 2009-2011 Yamaha: 2002-2008 R1 2006-2009 FZ1 2009-2012 R1

## 8. DRIVE TRAIN

A. Must use steel drive shaft from motor to automotive rear end.

B. Drive shaft must have a minimum of 3 360 degree loops. One near each end, one in center. Must be fabricated from a minimum 3/16" x 1-1/2" steel bar, or 1.00" x .065 steel tubing.

C. No quick change rear ends.

No quick change in the entire drive system, meaning from motor.

Drivelines must be painted white.

## 9. FRAME and ROLL CAGE

A. Roll cage must be constructed of a minimum 1.25" .065 wall OD or 1.5" OD x .065 wall tubing in the main roll cage. Secondary members will be a minimum of 1" OD x .065. wall.

B. All lower frame side rails will be a minimum of 1" x 2" rectangular tubing with a minimum of .120" wall. The lower frame rails on the extreme right and left side, may be horizontal or vertical, but must remain continuous from extreme front to extreme rear. Whether laid horizontal or vertical, it must remain that way all through the frame rail. Does not include cross member. If frame rail is cut, it must be gusseted with 1 x 2" .120 wall. No round, oval or square tubing in lower side frame rail. No overslung rear frame rails.

C. There will be a minimum of three (3) cross members in the main compartment; one at the forward end, one in the center and one at the rear. The cross members will be made of steel only, with a minimum wall thickness of .120". Cross members may be round, oval, square or angle.

D. The right and left doors must have a minimum of two bars with a minimum of .065" wall x 1" OD tubing welded through the midsection of the door frame. The bar supporting the drive shaft tunnel may be included as one of these,

only on drive shaft side. Drive shaft side of car must have one bar, minimum of .065" wall x 1" tubing, welded inside to front and rear door post positioned horizontally.

E. All cars will have a permanent structure support bar, located behind the seat at approximately 23" above the frame rail, extending from side to side. The bottom of the seat will not be more than 63" back, measured from the upper ball joint to the center of the seat at the height of the permanent structure bar. The seat may be tilted back for added driver head clearance, however, no portion of the seat may be back more than 68" as measured above. A seat pan must be welded in place, using a minimum of 14 gauge steel.

#### 10. ENGINE LOCATION and SET BACK

A. All engines must be front mounted, in stock location for model of car.

B. Engines may not be extended more than 12" to either side of car body center line.

C. Engine set back is the square of the motor (rear fins) may not extend more than 17" from center of front axle. No part of the engine or transmission may be more than 21" set back, as measures above.

#### 11. SUSPENSION

A. Front suspension must not exceed 25" measured from the ground to the highest point of any front suspension, or extend rearward past the most forward panel of the fire wall, except under frame rail, where it can not be seen from either side.

B. Steering components must have safety fasteners, such as cotter pin or self locking nuts.

C. If steering box is mounted in front cowling, the pitman arm may not extend more than 1 1/2" outside the natural contour of the body near that point, and must not prevent proper door operation.

D. The center of the front and rear axle will be mounted in the center of the frame from side to side, (1/2" tolerance is allowed).

E.. No Straight axles.

F. No Leaf spring or torsion bars.

G. No Bird Cage type rear linkage or Jacob's ladder. 3 link suspension only

H. Steel shocks only, one shock per tire. 4 shocks only. Coil over type shocks and springs only. \*\*No exotic style shocks.

I. Trailing arms, located outside of frame may not extend beyond the rear door post.

J. No exotic type power steering with cam driven pumps.

#### 12. WEIGHT

A. No car shall weigh under 1,000 pounds without driver. In the event that multiple cars are not meeting the weight requirement, the accuracy of the scales will be considered by the head tech official.

B. No ballast will be mounted outside of body or frame. All ballast must be securely bolted or welded inside of body or frame rail and extend no lower than frame rail. Ballast will be painted white and have the car number clearly marked.

#### 13. NERF BARS and BUMPERS

A. Front bumper must be no wider than 36" and a minimum of 24" and will not extend more than 6" forward of front tires.

B. Rear bumper must be no wider than 50" and a minimum of 40" and will not extend more than 6" from extreme rear body panel, or 8" if the car has a simulated fuel tank.

C. Front and rear bumpers must be a minimum of 4" above the ground, and a maximum of 14". A 2" extension bar may be allowed on top of the bumper, but must not exceed 16" high from the ground.

D. Bumper will be a minimum of 6" wide vertically.

E. Bumpers are to be made from 1" round tubing .065" minimum, and .095" maximum wall.

F. There will be no sharp points or edges.

G. Nerf bars must be mounted on both sides in front of rear tire and be no more than 18" from center of rear axle to rear of nerf bar. A minimum of a three (3) point mounting is required. The lower bar must be parallel to lower frame rail from the rear of the car then curve or bend toward lower frame rail. The upper bar is to attach to the roll cage a maximum of 18" above the rear attachment point of the lower bar. An additional diagonal brace from frame rail to lower bar is strongly recommended. Nerf bars must not interfere with the opening of either door and must roll through a 61" opening.

H. These nerfs will be constructed of round tubing .065" x 1" OD, and a maximum of .095" x 1" OD wall tubing. Lower bars may not extend more than 1" past the tire tread in rear only. Must roll through 61" opening.

#### 14. ELECTRICAL

A. All batteries must be rear mounted (trunk area). Batteries must be securely mounted with a top restraint made of metal. Restraint must also hold battery caps.

B. Cars should have master electrical switch clearly located and marked.

C. No electronic (i.e. computer) traction devices. No electronic or manual devices will be adjustable by the driver during a race. Any such devices shall be mounted outside the driver's compartment. Any such devices must be on the approved list from rule 7K.

#### 15. BRAKES

1. DIRT: Must have at least two (2) brakes controlling 2 wheels. \*\*4 wheel brakes are recommended

\*\*Brake Bias manual and electronic shut off devices are allowed inside the driver compartment.

#### 16. SAFETY

**(SUNSET SPEEDWAY SAFETY GUIDELINES - FIRE SUITS:** A flame/fire resistant suit designed for auto racing will be **REQUIRED** at all times car is on the track. A 1 or 2 piece flame/fire resistant suit will be accepted. **HIGHLY RECOMMENDED:** Fire resistant gloves, shoes, socks, head sock and underwear. It is recommended that the driver's suit be the best quality fire protection available.

**HELMETS, HEAD & NECK RESTRAINTS:** Rules apply at all times car is on track. Snell-rated **SA2005, SA2010 or SA2015** Helmet required. (**M rated helmets are not permitted**) **HIGHLY RECOMMENDED:** SFI approved helmet skirt, neck and head restraint system.

**SEAT BELTS:** Minimum 3 inch wide, SFI-approved five point safety belt system. Center crotch belt must be used and must be mounted to the roll cage seat mount. All belts must be mounted securely to main roll cage. Must be complete matching set from manufacturer. Safety belts must be replaced every 5 years and all belts be dated by the manufacturer. **HIGHLY RECOMMENDED:** to replace every 2 years. )

A. All inside suspension mounts must be shrouded from drive compartment. No sharp edges or protruding objects which could endanger driver, shall be inside drivers compartment. All cut and free standing edges must be folded, molded or filed smooth (i.e. window and door edges).

B. All cars must have an approved 5 point racing harness, equipped with a quick release buckle. Both ends of harness must be attached to the frame of the car with, not less than 3/8" grade 8 bolts. All seat belts will be installed at a 45 degree angle to the drivers hips. Shoulder harness comes from behind the driver, and will go over both shoulders so that they will be held securely in the seat. (all safety restraint harnesses will be installed in accordance with manufactures guidelines). Seatbelts must be replaced or recertified every 2 years.

C. Approved racing type helmet with current snell rating are to be used. (SA-2005).

D. All cars will have a production made quick-release, removable steering wheel.

E. All cars are required to have a fire extinguisher. 5 Lb. Halon on board fire system with a minimum of 2 nozzles installed is highly recommended. If a portable type fire extinguisher is used, it must be mounted inside the car easily removable by driver with one hand while in belted position. All pits must have a minimum of a 2 lbs. fire extinguisher accessible in their pits.

F. All drivers must wear an approved driving suit. Single layer fire suit is minimum.

G. \*\*All drivers must wear an approved neck brace and fire proof gloves. It is strongly recommended to use a head and neck restraint device and a full containment seat.(Racing is a dangerous sport and it is a DRIVER's responsibility to maximize their safety and minimize the potential for injury). These devices may become mandatory in the future.

H. When racing on asphalt, a catch can for oil and water is required.

I. All door latches must be a positive locking device, so as not to open from vibration or up set, and not to jam if door is damaged. All hoods and trunks must be securely fastened by, spring latch, nuts and bolts or dzus fasteners (no screws)

J. No glass of any type is permitted. Side windows may have shatterproof Lexan, minimum of 1/16". Front windshield must have 1/2" square mesh windscreen, or a bar system with a maximum of a 2" opening. A 2" block cannot fit through the opening.

K. No listening or transmitting devices. \*\*Raceceivers are allowed

L. No rearview mirror of any type.

## 17. NUMBERS

***If only running at Sunset Speedway numbers on side of car can be on door or side panel, must be visible from tower. If you plan to travel to Regional events, you need to abide by the numbers size and location requirements below:***

A. All cars must have numbers in five (5) location: Numbers on right & left door and roof must be a minimum of 12" high, and the width must be 2/3 of the height, except for the number #1. On the roof, it should be as large as possible. The number on the rear of the car must be a minimum of 6", and located above the bumper so to be viewed by the driver behind. The assigned association letter must be a minimum of 6" high on the roof and the doors and 2" high on the rear of the car. A minimum 2" number and letter must be displayed on the left front upper corner of the windshield. All numbers must be permanent (ie: vinyl or painted). All numbers should be made to be as large and clear and plain as possible to assist in scoring.

B. No Roman numerals, or Gold leaf .

## 18. RULES of CONDUCT

A. \*\*Any driver or crew who shows evidence of having partaken of alcoholic beverages or illegal drugs will be required to leave the premises immediately and may be subject to a fine of no less than \$50.00 and may be subject to suspension.

B. Any driver who competes in a car other than the original car they registered to drive, must get approval from the pit steward before competing. If the driver has already completed a race (ie: heat) they must go to the rear of the last qualifying main event to continue. If a Main event has been run, no changing of cars will be allowed for that night, in their division.

C. The driver shall be responsible for the actions of his/her entire pit crew that are with the car. The driver shall be the sole spokesperson for the car and pit crew in any and all matters pertaining to the race, and only the driver shall take part in any arbitration with the race officials in charge.

D. Non-competitive cars which are a hazard to the other cars, will, at the track's discretion, receive the "BLACK FLAG". If a driver continues or re-enters the race without permission of the track officials, he/she will start the next event they enter, at the rear. Any driver who stops on the track for any reason, may be sent to the rear. Failure to go to the rear when told will result in a black flag.

E. No fighting, physically or verbally, or abusive gestures in the pits or on the race premises at any time. Any driver who deliberately rams another car on the track (during a yellow or red flag) will be black flagged from that race. Any driver who rams another car in or around the pits, may be disqualified from

that night's competition, that event, or from future WSDCA events depending on the severity which will be decided by the Pit Steward or WSDCA Board members.

F. Any member who performs an act or participates in actions deemed detrimental to Dwarf Car racing or WSDCA will face a fine of at least \$50.00, and the member may also lose accumulated points, money won, or be suspended.

G. All drivers or their representatives will be required at the pit meetings.

H. Penalties for violations of the WSDCA rules are determined by the gravity of the violation and its effect on fairness of competition, the orderly conduct of the event, and the interest of Dwarf Car racing & WSDCA. Such penalties may include, but are not limited to, disqualification, suspension of membership privileges, fines or loss of points. The WSDCA board of directors shall use the following guidelines for the imposition of penalties in the situations described below, but may assess a greater or lesser penalty depending on the circumstances.

I: \*\*Any driver who threatens or assaults, either verbally or physically, any WSDCA official or board member or persons serving under their direction or any other driver may face a suspension, a minimum fine of \$100.00 and loss of money for that event, and loss of accumulated points.

J. Any member who fights in the pits, track, or on the race premises may face a fine of \$200.00, suspension, money loss from that event, and all accumulated points. Any person who is in someone else's pits will be deemed the party at fault.

K. All operational cars must pack the track. Any driver, with good reason, who is unable to pack the track must inform the WSDCA official prior to hot laps. Those cars not packing the track will not be allowed to hot lap and or may have to start at the back of their heat.

L. All National and Regional races must run the WSDCA format listed below and must pay the \$10.00 per car (Pro's, Vets. and Sportsmen) for National and Regionals that participated in the event to the WSDCA. The finishes must be furnished promptly to the WSDCA.

M. Any associations that are hosting a National or Regional event must have a completed and signed contract at the WSDCA office on file.



N \*\*Membership in WSDCA is \$250.00 per club. One Vote per club. \$50.00 individual memberships are available but are non voting. Annual membership runs from Dec. 1 through November 30th of that same year. Drivers must be paid members and in good standing to get points for races.

These are common sense type rule violations. They are designed to give Clubs an outline on how to deal with violations and categories those violations may fall under. We should keep in mind that it's our goal as officials to promote and encourage the growth of our sport and to increase car count and not to use these violations as a method of singling out or disqualifying drivers from an event. All cars should be

tech'd prior to any event and all tech should be carried out by assigned personnel and should be between the driver/owner of the car in question and the tech person. Any tech issues not resolved should be brought up to the board of directors for clarification.

## VIOLATIONS & FINES

Money for fines will be taken from purse.

### 1. Safety violations

A. No car will be allowed to race if it is found to be unsafe for the driver or other drivers.

\*Any violations must be signed off by pit steward or acting tech official before it is allowed to race. This violation can not be protested.

See Section 6,14a,& 16 of WSDCA rule book

### 2. Non-performance enhancing

A. In the WSDCA rule book, Section 1, 2,8,9,10,13,15,17 &18, these are all non performance enhancing issues.

\* 1st offense: a warning and must be corrected by next racing event.

Any offense not corrected, driver may be fined. This violation can not be protested.

### 3. Performance enhancing

A. In the WSDCA rule book, Section 3(a,b,c,f) Section 4,5,7(a,b,c,f,k), 8(c,d),11,12(a),

\* Driver may be disqualified and or lose points and money for that night, depending on the gravity of the violation and the intent to violate the rules.

### 4. Conduct

A. Section 18

\*Any incidents that occur on the track, should be handled by the track officials or the Pit Steward or WSDCA official.