



Mini Dwarf Rules

updated 1/12025

Mini Dwarf Divisions will be determined by age and/or driving ability. This will be determined by track officials.

Drivers shall be from the age of 5 through 13.

No persons including parents will be allowed on the racetrack at any time during heats or mains – unless asked by a track official. This is for your safety and Mohave Valley Raceway officials as well. An area will be provided to watch the racing from.

All cars except for the winner of each class needs to be moved off to the side and ready to head back towards the pits once the last race is over. Only the first-place winners need to be on the front stretch for pictures and interviews. With this, immediate family can join the 1st place winner for a picture on the front stretch.

Race Certification

All drivers and crew must be knowledgeable of Mohave Valley Raceway race etiquette, flag meaning and usage, and all Mohave Valley Raceway race procedures. The driver of any car and at least one parent and/or adult crew member must attend the driver's meeting scheduled at every race.

Driver and Crew Conduct

In case of any rule's challenges, scoring questions, or disagreements of any kind involving race procedure, a car, or driver, one adult crew member may discuss the issues with Tyson or a Mohave Valley Raceway Official.

At no time may any driver, crew member, or parent verbally abuse or physically abuse any Mohave Valley Raceway Official, other drivers, or crew members. At no time may a driver, crew member, or parent go into another driver's pit space to confront them about issues involved in racing. Any problems must be taken up with Tyson and/or a Mohave Valley Raceway Official, who will deal with the problem. Failure to follow these rules may result in a disqualification, fines, or suspension from Mohave Valley Raceway competition for themselves, the car, and the driver they represent.



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SAFETY EQUIPMENT

Eye protection, helmets, harness, neck collars, gloves, and driver's suit must be worn at all times when on the racing surface.

Race receivers and MyLaps Transponders are mandatory. Transponder is to be mounted on the right rear corner facing down towards the ground.

No radios, Bluetooth, or iPods are to be used on the racing surface.

No driver shall compete in any event with head or arm extended outside the confines of the roll cage. Failure to comply will result in an immediate black flag and removal from the race.

Car and driver will be required to fix safety violations PRIOR to racing at any event.

Driver's Suit

- A SFI approved flame-retardant driver's suite is mandatory. No polyester clothing of any kind is allowed.
- Neck collar or a Hans type device is mandatory.
- Racing gloves are mandatory. No welding gloves, gardening gloves, etc.
- Racing shoes or leather boots/shoes required. No nylon shoes are allowed.

Helmet

- A full-face shield, Snell 2015, SA approved or newer helmet with proper identification is mandatory and must have no signs of previous damage.
- Motorcycle helmets (M rated helmets) with a Nomex sock will be allowed.
- No motocross helmets.

Driver's Seat

- A commercially manufactured racing seat with padded headrest, securely mounted and attached to the floor pan in a minimum of six (6) locations – four (4) on the bottom and two (2) on the back of the seat with 5/16" grade "8" bolts is required.
- Each race seat must have a set (2) of side head supports installed.
- Fiberglass seats are not allowed.



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Driver's Harness

- A SFI certified, race approved, quick release 5-point racing harness is mandatory. Must have a minimum of 2" wide lap and shoulder belts and a 1" wide submarine strap.
- Belts must be bolted to the cage or frame with grade "8" minimum 5/16" bolts.
- Harness must be dated stamped no more than four (4) years old from the present date unless worn or frayed which must immediately be replaced.
- Driver's harness must be work at all times while in the racecar.
- Arm restraints are mandatory and must be worn properly to prevent the driver's hands or arms from reaching outside of the driver's compartment.

Window Net:

- Window nets which are securely mounted to the car and cover the window openings. No string nets or close net off road type nets allowed.
- Window net release must be in front, at the top of the window, and workable from inside and outside of the car.

Steering Wheel:

- Removable steering wheels are mandatory and must lock securely to the steering column.
- The center of the steering wheel must be padded.

Fire Extinguishers:

- Each pit area must have an extinguisher located either within the hauler or by the door or on the trailer. A 5-lb, ABC type extinguisher is the minimum size.

Inspections:

- All cars and drivers are subject to inspection at any time or any place on the premises of Mohave Valley Raceway.
- Only the driver and 1 parent are to be present during any race inspections.
- The Top Three Drivers will have their cars and engines inspected after every race, or at least after the main event. This will be at the race director's discretion.
 - o The Top Three cars must go directly to tech after the main event for inspection. Failure to do so will result in disqualification and loss of points for the night. This will be at the race director's discretion.



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- The inspection may consist of, but not limited to: the removal of the carburetor, cylinder head, clutch, and check of engine side cover and applicable seals/tags. Please read section, Engine Inspections for details.
- If the driver or the car owner refuses the inspection of the engine or doesn't go straight to tech, the driver will lose the event points for the night and could possibly have a suspension from future races.

ENGINE INSPECTIONS

- All engines may be **REMOVED** and inspected **AT THE TRACK** anytime. The motor must be presented for inspection with the oil drained within 30 minutes or less. All engines must be removed at the tech inspection area. The side cover, carburetor, cylinder head may be removed to verify that the engine has not been altered beyond the rules. It must comply to all rules, including a cam lift check, or the motor will not be allowed to race until the problem is corrected. If the motor is inspected **POST** race (heat or main) and is found to be illegal, it will result in loss of points for the night and a 1 or 2 race suspension for the driver, parent, and/or crew chief of the car. Mohave Valley Raceway's discretion
- Regardless of the outcome of the inspection process, it will be the responsibility of the car owner/crew to reassemble motors after inspections.

Car Body and Roll Cage:

The car body may be vintage coupe, sedan, sedan delivery, wagon or truck, IMCA Modified, or mini sprint car style. The entire body of the car shall be made of steel or aluminum.

ALL MAIN CAGE BARS MUST BE ONE PIECE, PERMANENT STRUCTURE. NO HINGED OR TWO-PIECE DESIGN. NO PART OF THE DRIVER'S HELMET SHALL BE TALLER THAN THE MAIN CAGE. BOTH RIGHT AND LEFT DOORS MUST HAVE A MINIMUM OF ONE BAR WELDED THROUGH THE MID SECTION OF THE DOOR FRAME.

All cars must be fabricated so the driver may exit through a roof hatch or a driver door that opens and provides a quick and safe entrance or exit from the car by the driver. Body panels must cover the sides of the car in the leg and foot area to prevent any intrusions.

There shall be no sharp edges or corners on any body parts. Maximum height of car body from the lower frame rail is 35".



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Numbers:

All cars must have a minimum of three large numbers located one on each door/side and one on the roof. Numbers must be a minimum of 12" high. A 3" number will be placed on the rear of the car and on the front facing part of the roof. All numbers shall be plainly visible and in contrasting colors to the car with officials having final approval.

Width Rule:

Maximum width of car is 42" at any point. The car must be able to roll straight through width gauge before race to be legal to race.

Wheelbase:

Minimum is 57.5" and maximum is 58.5" measured from the front to the rear axle center points. Maximum width is 42".

Car Weight:

Minimum weight for the sportsman class with driver is 375 lbs. Minimum weight for the master class with driver is 375 lbs.

Ground Clearance:

Minimum of 2" at bottom of seat. Frame rails must be lower than the bottom of the seat.

Bumpers and Nurf Bars:

There will be no sharp points or edges. Front and rear bumpers must be a minimum 42" wide, 6" high, 5" above ground, measured at the center of the bumper. Nerf bars must be mounted in a minimum of 3 points on both sides, in front of rear tires and behind the front tires. Nerf bars must extend out to become same width as front and rear bumpers. The lower bar must be parallel to the lower frame rail, in front of the rear tires, then curve or bend toward the lower frame rail, attaching behind the front tires. The upper bar must be attached to the roll cage. Front bumper MUST be mounted to the outside of the front nose or body.

Suspension:

The front axle shall be made of one solid bar and have a one or two spring suspension. No independent front suspension of any kind. Weight jacks are permitted. There is no rear suspension allowed of any kind. The rear axle must be solidly attached to the rear frame rails.



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Fuel:

Only pump gas is approved to be run. No fuel enhancers, nitrous, or alcohol allowed. Must always pass water separation and/or color verification test.

Pump gas that can be used is 87 – 91 octane.

Engine Oil:

Standard engine oil only. No oil enhancers or additives allowed. Must always pass burn and/or sniff test.

Tires and Wheels:

May run either the 8” or 6” rear tire.

Wheels 6” in front, 6” or 8” in rear, standard offset, left and right wheels may be steel or aluminum. Tires will be as follows: Front: 15 x 600 x 6 turf tread; Rear: 16 x 6.5 x 6 or 8 turf tread.

The racetrack reserves the right to implement right rear tire pressure rule at any time during the racing season.

No racing compound of any kind. No bead lock wheels.

Clutch:

One dry centrifugal type clutch permitted. Chain driven. A bully clutch is allowed.

Brakes:

One or two brakes on rear axle only. Disc or drum style, foot brake only, Rotor can be drilled.

Drive Sprockets:

Any steel split or solid rear drive sprockets. Jackshafts are allowed. No torque converters. No belt drive systems. Chain guards are required on the engine. Cannot be bigger than 99 teeth.



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ENGINE RULES

All vehicles are restricted to a maximum of one 6.5HP **Harbor Freight Predator** engine with a maximum of 212cc. Both Hemi and Non-Hemi are allowed.

Removal of governor components is legal; however, it is suggested for beginner drivers to leave on.

All engines shall remain OEM stock and must use the following OEM parts: block, cylinder head, crank, rod, piston, and valve train.

The following exceptions are allowed:

- Advancement of timing is allowed.

Flywheel:

- A SFI certified steel or aluminum flywheel is mandatory.
- Must be stock/unaltered OEM.
- Stock rockers with maximum lift measured with zero lash at the intake valve retainer of .246", and maximum lift measured with zero lash at the exhaust valve retainer of .254".
- Valve spring maximum wire diameter .698".
- Valve spring pressure of 10.8 lbs. Max at .850"
- Tachometer and temperature gauges are permitted.

Throttle:

- Must be operated by a foot pedal only. All cars must be equipped with a positive throttle return spring at the carburetor and at the foot pedal so the throttle will close when released.

Piston:

- Must be stock, unaltered OEM flat top or dished only. No domed or valve relieved piston of any kind allowed. Coating, anodizing, re-sizing, knurling, or lightening of pistons is not permitted.

Piston Rings:

- Must be stock Harbor Freight Predator rings, all three piston rings must be used, installed correctly and in working order. Ring tension may not be changed by heating or other means.



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Connecting Rod:

- Must be stock, unaltered OEM. No machining of any type is allowed. Stock rod bolts only.

Combustion Chamber Volume:

- 25 cubic centimeter minimum, with piston at TDC, using prescribed procedure. The liquid CC check is the official check. (IF THE ENGINE FAILS THE CC LIQUID CHECK AT ANY TIME DURING THE TECH PROCEDURE, IT MUST BE CALLED ILLEGAL.)

Cylinder Head:

- Must be stock, unaltered OEM Harbor Freight Predator motor. Cylinder head model casting number MUST be visible to tech and match the engine block.
- No alteration, modification, or machining is permitted to the head except for the head gasket service. The entire inlet and exhaust tract surfaces must remain stock and is a NO TOUCH AREA.

Rocker Arms:

- Rocker Arms must remain in stock unaltered condition. Only stock rocker arms are allowed. Ration must remain stock (1:1) as well as all dimensions. No filing, grinding, milling, bending, welding, or any modification is allowed. Part may be checked against a known stock part both visually and dimensionally in tech inspection.

Valves:

- Stock Harbor Freight Predator valves must be used.
- Valves must not be altered, polished, lightened, welded, brazed, or machined in any way. Only stock, unmodified valve keepers may be used, installed properly on the appropriate valve.

Ignition:

- Must use stock coil. After market spark plug wire is allowed.



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Recoil:

- The standard utility recoil starter assembly must be entirely in place on all Honda engines and must be the only method of starting the engine. It must mate with a stock unaltered starter cup that is bolted to the flywheel. The standard spacer must be retained between the recoil and engine shroud.

Gaskets:

- Side cover gaskets, as well as carburetor bowl gaskets and O-rings must be of stock appearing shape.

Governor:

- The governor may be removed from the engine. All external holes caused by this removal must be plugged and cannot be used for crankcase ventilation.

Coatings

- The cylinder block, side cover, and head finish and texture must be AS CAST by Harbor Freight Predator. (Can resurface head if damaged, BUT no port polish.

Carburetor:

- **Stock Carburetor Only:**
 - Choke must be installed and working
 - Choke Bore .810"
 - Venture .615" no-go.
 - Rear carburetor bore .751" no-go
 - No fuel injection
 - No pressurized systems
 - No fuel pumps
- Jetting is allowed, including adjustable jets
- No aftermarket carburetor or intake may be used.
- Aftermarket air filter and adapter is allowed.
- No shaved down throttle plates or choke plates allowed.



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Sportman/Minion Motor:

- Stock
- Only parts allowed to be added/modified are: exhaust, aftermarket air cleaner, and aluminum flywheel kit.
- All internal parts **MUST** be stock

Master Motor:

- The engine must be rear mounted and centered between the frame rails measured from the engine drain plug +/- 1".
- All vehicles are restricted to a maximum of one 6.5 HP **Harbor Freight Predator** engine with a maximum of 212cc.
 - o The Honda engine is not allowed. No clone engines allowed
- Removal of governor components is legal.
- All engines shall remain OEM stock and must use the following OEM parts: block, cylinder head, crank, rod, piston, and valve train.
- The following exceptions are allowed:
 - o Minimum combustion chamber volume of 27.5cc with a piston at TDC.
 - o Advancement of timing is allowed
 - o Camshaft CL-1 improved grind by Dyno Cams (part #CL1I-PRED) (Keep spec card on hand at all times)
 - Intake duration at .050" lift 219.00 degrees and at .200" lift 86.5 degrees. Peak intake lift .224". +/- 1 degree upon inspection.
 - Exhaust duration at .050" lift 222.5 degrees and at .200" lift 98 degrees. Peak lift .231". +/- degree upon inspection.
 - C/L 112.5 ATDC INTAKE. C/L 1060 BTDC EXHAUST.
- Flywheel:
 - o A SFI certified steel or aluminum flywheel is mandatory.
- Stock rovers with maximum lift measured with zero lash at the intake valve retainer of .246", and maximum lift measured with zero lash at the exhaust valve retainer of .254".



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- Valve springs must be of appropriate Harbor Freight Predator (max 18 lbs) manufacture and be unaltered (but not limited to shot or glass beading of surface or heat treating). Shimming of valve springs of any kind if not permitted.
- Valve spring maximum wire diameter .698”.
- Tachometer and temperature gauges are permitted.
- Throttle:
 - o All cars must be equipped with a positive throttle return spring at the carburetor and at the foot pedal so the throttle will close when released.
 - o The throttle must be operated by foot.

Interpretation of the Rules:

Though we have made every effort to provide rules that will be clear and precise, should there be any confusion in your interpretation, ASK!!! IGNORANCE IS NOT AN EXCUSE!! If a specific issue is not addressed in these rules, the official's decision is final. Any modifications not addressed in these rules will not be allowed unless approved by Tech.

We want all cars to be competitive with each other in their division. If you do something with your car that has been overlooked in these rules that we feel gives you an unfair advantage over your competitors, YOU will be required to change YOUR car.

These rules are provided to maintain orderly conduct of racing events and to establish requirements. By participating in the Mini Dwarf events at Mohave Valley Raceway, each driver and parent agrees to comply with these rules and all general rules of the raceway.

Should you be found in violation of these rules, it will be Tech's discretion to what action will be taken. A minor 1st time infraction may allow you to race that night but require you to make necessary changes prior to the next race.

Should a racing advantage rule infraction be found, you may be asked to start in the back or may not be scored or allowed to place in that event. You may also have to add weight to your car to compensate for the infraction. The amount of weight to be added will vary depending on the infraction and will be determined by the Tech. You will need to find the weight required yourself, it will not be provided. Changes will need to be made to your car to comply with the rules prior to the next race night.



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updated 1/12/2025

These rules will be in effect throughout the 2025 racing season. These rules are in no way meant to imply any guarantee of safety. There is no guarantee against injury or death to participants, spectators, or others.

These rules may be amended at any time by the Officials. Changes may be made for safety or to keep the competition close.

The Mohave Valley Raceway staff appreciates your cooperation in complying with these rules, we wish you all a safe and successful racing season.