

MO-KAN TRACKS ASSOCIATION E-MOD 2022-2025 RULES
CENTRAL MISSOURI SPEEDWAY – GRAIN VALLEY SPEEDWAY - LAKESIDE SPEEDWAY - US-36
SPEEDWAY

As of 1-01-2021 **This is an Entry Level Class.** Anyone can compete in this class but must follow the rules as written. These rules were written by officials and are interpreted by the officials. These rules tell what you can and cannot do. **If the rules do not say you can do something, then you cannot. If something is found and determined to not meet the intent and the integrity of E-Modified class it will be deemed illegal and the car will be disqualified, do not assume you can make things up on your own, ask questions and clarifications if you are unsure of anything.** Before you do something not mentioned in these rules call and ask the head tech official first and he will tell you yes or no. Changes, additions, and edits since the last edition (2018), are annotated in bold red and underlined. **Any car that is found illegal at any Mo-Kan Series track will have to go through a pre-tech inspection to make sure the infraction has been corrected before it can compete at another track or the next race.**

COMMUNICATIONS: All competitors must have a RACECEIVER.

1) FRAMES:

- 1) Factory production complete full American passenger frames only.
- 2) Frame rails must extend to a point beyond the base of driver's seat.
- 3) Rear clip may be fabricated out of tubing.
- 4) Front and rear pick-up loop required; otherwise bumpers or other pick-up point will be used.
- 5) Minimum right front frame height is 4 inches and will be measured at the right frame rail where it turns toward the rear at the outer frame rail.
- 6) Frames cannot be altered.
- 7) All measurements will be taken with the driver in the car.

2) BODIES:

- 1) See IMCA NORTHERN SPORT MODS or USRA B-MOD body rules. **For all Rear sail panel rules. See IMCA Northern Sport Mod rules and measurements. Sail panels can have a bow outward but cannot bow out wider than the deck. No Spoilers. No rear filler panels, MD3 nose not allowed. No lips, wings or fins allowed.**
- 2) Window opening must be a min. of at least 12 inches on all 4 corners.
- 3) **Body may extend 1" past the outside front edge of the tire on the left rear only. Body can not be outside the tires on the right side, tires must be the widest part of the car. No body panel can bow inward towards the enter of car.**
- 4) Max. deck height 39 inches, deck width 66 inches. No reverse hood rake.
- 5) Wheel openings cannot be smaller than the outside diameter of the tire. Example: (a 29-inch-tall tire will require a minimum 30-inch wheel opening). All other body rules apply. **No body panel can be concaved, all panels must remain flat.**
- 6) All inspection covers must be held in place by using Snap clips or Dzus Fasteners only... NO bolts.

(NOTE: THESE ARE ECONOMY MODIFIEDS, NOT A-MODIFIEDS OR MODIFIEDS) THESE BODY RULES ARE PUT IN PLACE TO HELP SEPARATE THE LOOK OF THIS CLASS FROM SIMILAR LOOKING CLASSES.

3) WHEELBASE:

1) 108 inches. Minimum, 112 inches maximum both sides.

4) ROLL CAGE:

1) Must consist of continuous hoops not less than one and one-half inches outside diameter and must have a wall thickness of at least .095 inch. Must be frame mounted in at least six (6) places. Body mounted roll cages not acceptable.

2) Must consist of configuration of front and rear hoops connected by tubing on sides or side hoops in a manner deemed acceptable by the inspector.

3) Driver's head must not protrude above cage with helmet on while strapped in driver's seat.

4) Must have at least three (3) horizontal bars at driver's door welded to front and rear of roll cage members. Driver's door must be plated.

5) WEIGHT:

1) Minimum weight is 2500 pounds with driver after race, No tolerance.

2) All lead weight must be mounted securely, with 2 weight clamps & 1/2-inch bolts.

3) **Lead must be painted white & have your car number on the lead.**

4) Lead can only be mounted to the chassis. No weight can be mounted to any suspension part or to the rear end. **No lead can be outside the body-this includes the hood.**

6) WHEELS & TIRES:

1) American Racer G-60-15 KK704 or Hoosier G-60 –15 IMCA stamped is the only tires used.

2) **All tires must meet a durometer of no less than 50 at technical inspector's discretion. NO SOFTENING OR CONDITIONING OF TIRES OTHER THAN MENTIONED IN THESE RULES. Tires will be checked by tire durometer on the Outside and/or inside of the tire. Over siping, needling or grinding can and may alter the compound, this will not be an excuse if the tire does not meet the durometer rule. Lowest tire number point is fifty (50). NO ALTERING TIRE COMPOUND!**

3) Grooving, sipping and grinding allowed. No doping or softening of tires.

4) No Aluminum wheels.

5) NO extra weight of any kind can be added inside or outside the wheels. Example (lead added or glued inside of the wheel).

6) Wheel width must not exceed eight (8) inches.

7) Any foam or plastic type mud cover mounted on right side wheels. **All mud covers must be bolted on with ¼ inch bolts only,** Inner mud plug on L.R. only. Bead locks allowed on right front and right rear only.

8) Widest part of the car can be 78 inches. This includes outside to outside of front tires.

7) BRAKES:

1) Disc or drum brakes may be used front and rear. No aluminum disc or brake calipers allowed.

2) Brakes must be operational on all four (4) wheels and must lock up all four wheels during inspection.

3) Front to rear Bias only, no left to right bias. Calipers must be the same left and right.

4) Brake pads cannot be altered. No heavy or solid brake rotors allowed.

5) No right front brake shut offs. No residual pressure valves.

8) BUMPERS:

1) Bumpers must be used front and rear.

- 2) Front bumper must be mounted on frame end and be of a semicircle configuration with the bottom loop parallel to the ground. **See body rules as per IMCA NORHERN SPORT MOD.**
- 3) Front bumper must be ten (10) inches high from bottom bar to top of top bar.
- 4) Material must be one and one-quarter inch minimum, two-inch maximum O.D. steel pipe.
- 5) Rear bumpers may be constructed of pipe, square tubing, but must not have sharp edges.
- 6) Rear bumpers and nerf bars must not extend beyond width of rear tire.
- 7) Bumpers must be able to support car when lifted by wrecker.

9) SEAT AND SEAT BELTS:

- 1) Racing seat mandatory.
- 2) All cars must be equipped with an approved quick release type seat belt and shoulder harness securely fastened to frame and roll cage.
- 3) Seat belt material should be at least two (2) inches wide AND CANNOT BE OLDER THAN 3 YEARS and must be a 5- or 6-point belt system. Sub belts are required.
- 5) Seat and steering wheel may be located to suit driver's taste but must be kept on left side of car. No center steer.
- 6) **Seat belts cannot be mounted to the tube that goes to the rear section of the car; they must be mounted to the bar the crosses left to right behind the seat.**

10) ENGINE LOCATION:

- 1) Rear of engine (bellhousing flange) must be at least 72 inches forward from the centerline of the rear axle.
- 2) **The center of the crankshaft must be centered within two (2) inches left to right of the frame rails and can be no more than 11 inches from the ground to the center of the crankshaft.**

11) Engine:

- 1) All engines' parts must be Ford to Ford, Chrysler to Chrysler, GM to GM (no mix or match).
- 2) MAXIMUM Size of engine block: 350 gm .060 max. 351 Windsor ford .060 max. 360 chry. .060 max.
- 3) Smaller engine allowed. No stroker engines allowed!!!!!!!!!!!!
- 4) OEM firing orders cannot be changed.
- 5) No B Hive or high-performance valve springs allowed.
- 6) 9 to 1 compression max.
- 7) The 602-crate engine block and crankshaft can be used.
- 8) NO 400 blocks or parts will be allowed.
- 9) TRACK HAS OPTION TO ENFORCE THESE RESTRICTIONS WITH A CUBIC INCH PUMP GAUGE OR BY VISIBLY CHECKING PARTS AND PART NUMBERS.

12) Heads:

- 1) 76 c.c. min., stock, No performance heads. No double humps. No 292, 041 castings. No LT1, No bowtie. No center bolt valve cover. No vortec or aftermarket allowed no porting or polishing.
- 2) 3/8-ths shouldered screw in studs allowed. Guide plates allowed.
- 3) GM maximum valve size 1.94 intake and 1.60 exhaust valve maximum. NO 202/160 allowed.
- 4) 305 heads on 305 only.
- 5) Ford maximum valve size: 1.84 intake and 1.60 exhaust.
- 6) No angle milling of cylinder heads.
- 7) No aluminum heads. No high performance and no boss heads.
No titanium parts of any kind.

8) GM approved castings: 14079267, 3986336, 3986339, 3986339x, 3986388, 3932441, 376445, 3928454, 3932454, 393493, 3876487, 3973487, 3973487x, 3973493, 3951598, 468642, 330862, 333882, 3998920, 3998991, 3998993, 3998997, and 3970126.

13) Camshaft:

- 1) Hydraulic camshafts only. No pump-up lifters. Must run 0 value lash and rocker nuts must back off $\frac{3}{4}$ turn before 0 value lash. **Lifters must have wire retainer springs only, No snap ring retainer type lifters.**
- 2) .455 maximum lift at valve, **A 1.52 ratio rocker max no tolerance. Maximum lift at the cam is .300. Ford Max lift at the cam is .285 and are allowed a 1.6 ratio Rocker Arm.**
- 3) Springs... **Must have a seat pressure and cannot exceed a maximum of 125 pounds.**
- 4) No roller cams. **Steel Roller Tip Rocker Arms are allowed.**

14) Crankshaft & Rods:

- 1) Stock OEM crankshafts. Aftermarket Crankshaft may have holes in the front and rear rod throws only. The two center rod throws must be solid, there can be no holes in the two center rod throws.
- 2) No lightweight crankshafts. Rear flange on the crank must look like an OEM crankshaft.
- 3) No h-beam rods or lightened rods of any kind are allowed. **Stock OEM rod lengths only for the engine being used. Changing rod lengths is not allowed. Example G.M. 350 5.7 rod only**
- 4) Stroke must match block. 3.48 for GM, 3.50 for Ford, 3.31 or 3.58 for Chrysler.
- 5) Minimum weight on crankshaft is 50 pounds.

15) Pistons:

- 1) Any flat top, 4 value, 2 value, unbrow, or dish piston allowed.
- 2) NOT allowed: domed pistons of any kind, lightweight pistons, or gas ported pistons.

16) BALANCER:

- 1) No Modifying of Harmonic Balancer.
- 2) Harmonic balancer on G.M. min- $\frac{6}{32}$ " dia 1 inch thick.

17) OIL PANS:

- 1) Extra capacity oil pans are permitted. No dry sumps allowed.
- 2) Oil pump must mount in stock position.
- 3) **MUST HAVE 1 INCH INSPECTOIN HOLE ABOVE OIL LEVELFOR INSPECTION.**
- 4) Inspection Hole needs to be installed in a manner were tech official can see crankshaft & rods for proper inspection. If not pan will be removed for inspection. Track will not replace gaskets or seals if no 1" inspection hole.

18) CARBURETOR:

- 1) 4412 HOLLEY ONLY. No HP Carbs. **Casting lines must remain in carburetor Ventura.**
- 2) NO MODIFACTIONS EXCEPT JETS AND BUTTRFLY CAN BE REMOVED.
- 3) NO ELECTRIC FUEL PUMPS / MANUEL ONLY.
- 4) A 1-inch spacer plate is allowed. Spacer plate holes must go straight through and cannot be tapered on the bottom side of spacer. No flow design, HVH or Wilson type spacers allowed.
- 5) Spacer can be aluminum or phenolic.
- 6) No cold air boxes.

19) INTAKES:

- 1) Only intakes allowed:
 - GM 2101, 2701 STAR PERFORMANCE 9101 OR RENEGADE 72001.
 - b. FORD 2121 or 2181.
 - c. CHRYSLER 2176 or 3776 / intake must be unaltered.
- 2) 2 barrel cast low rise unaltered intake allowed.
- 3) You may also use a Billet or Phenolic adapter, all adapters must remain unaltered with straight through holes, no machining, no tapered.
- 4) Total maximum thickness of the spacer and gaskets cannot exceed 1 and 3.16 inches.
- 5) Intake can not be altered in any way.

20) FUEL SYSTEMS:

- 1) Pump Gasoline only.
- 2) No E-85, or E-98 allowed, no oxygen bearing additives. **No fuel scents.**
- 4) No racing fuels. No pressurized fuel systems.
- 5) Fuel cells mandatory. Fuel max capacity of 22 gallons. Must have rollover flapper in cell.
- 6) Fuel cell vents including cap vent must have check valves. Fuel cells must be encased in an approved metal container of no less than 20-gauge steel or 1/8-inch aluminum.
- 7) Fuel cells must be mounted between frame rails as far forward as possible and using four, two (2) inch by 1/8-inch metal straps, two in each direction.
- 8) Bumper must be equipped with a drag loop extending below bottom of the cell.
- 9) No electric fuel pumps.
- 10) A Fuel test reading of "0" will be used, any fuel with a positive test number will be a DQ.
- 11) All fuel test numbers must stay a negative reading/number. Non-Ethanol gas is highly recommended.

21) EXHAUST/HEADERS:

- 1) Any collector type header allowed. Exhaust must be directed away from areas of possible fuel spillage.
- 2) No zoomies. No 180-degree headers. No step down or y type headers. No cones or any devices to help Exhaust performance.
- 3) NO EVAC SYSTEMS ALLOWED

Valley Speedway: Mufflers are mandatory for all Valley Speedway Cars: Shoenfeld 112535 short muffler, IMCA 609 insert, or Custom Craft are approved mufflers, others may be considered if they lower dB 810 points. Car must be under 95 db. at 100 ft at 4,000 rpm.

22) TRANSMISSION:

- 1) OEM three or four speed and automatic production-types are permitted.
 - A. GM Option 1:**
 1. Unaltered 3 or 4 speed in OEM production case.
 2. No 5 or more speed transmissions.
 - B. GM Option 2:**
 1. Unaltered 3 speed automatic.
 2. No TCI, CNR etc.... Torque Converters. Must have a working stock Torque Converter. Torque Converter must measure 10.5 inches, No dummy converters. A heat gun will be used to check converters.

3. No 2 Speed Power Glides.
- 4) Driver must be able to engage racecar in gear and then move forward and then backward at time of inspection. All gears must work. No lightening of transmission.
- 5) Clutch must be inside of bell housing and min of 10.4 inches, clutch disk can be solid and cannot be ceramic or a paddle type disc. Must have full-sized steel bell housing.
- 6) Flywheel must bolt to crankshaft. Minimum weight of flywheel must weigh 15 lbs.
- 7) Clutch must bolt to flywheel. Clutch assembly must weight 15 lbs.
- 8) Automatic transmissions must have a guard two-hundred seventy (270) degrees around flex plate and must be constructed of at least one-quarter (0.25) inch steel or SFI approved.

23) DRIVE SHAFT:

- 1) Minimum two-inch diameter, white, steel drive shaft. Steel slip-yokes only.
- 2) **No carbon fiber driveshafts.**
- 3) 360-degree drive shaft loop required and must be constructed of at least .25-inch by two-inch steel, or one-inch tubing, mounted six inches back from front U-joint.

24) SHOCKS:

- 1) Racing Shocks Allowed.
- 2) One steel, nonadjustable, unaltered shock per wheel only. **NO** Take Apart Shocks. **No rebuildable of any type. (If the shock has a snap ring or screw cap that can be removed and is holding the shock together it will be considered a take apart shock)** No external gas ports of any kind. **No shock can tie down any corner of the car. One inch of the left rear shock shaft must be seen with the driver in the seat.**
- 3) All shock mounts, including screw jack type, must be welded.
- 4) No external or internal bumpers or stops. No shaft extensions. No coil over, air, or remote reservoir shocks. No Schrader valves, bladder type valve or internal gas bags allowed.
- 5) Front half of any shock may be shielded.
- 6) One or all shocks may be claimed per event for \$75 each.

25) FRONT SUSPENSION:

- 1) Front suspension must match frame and be in stock location.
- 2) Parts must be replaceable from stock OEM type parts from same type suspension upper A-arm and A-arm mount.
- 3) Tube type upper A-arm may be used. Fabricated A-arm mount may be used. **Upper A-arm mounts must originate from the top of the OEM frame. You can not build or add on to the OEM frame to mount the a-arm.**
- 4) Lower after market A-arms can be used but must match OEM.
- 5) No tubular lower A-arms. No fabricated spindles.
- 6) Three-piece spindles are allowed but must use SPEEDWAY PART NUMBERS #91034511, #91034501 ONLY.
- 7) No coil over shocks allowed either front or rear.
- 8) One shock per wheel.
- 9) Steering box must be stock OEM type and be in stock location.
- 10) No rack and pinion steering. No center steering. No limit chains of any type on front end.

26) REAR SUSPENSION: TWO OPTIONS:

- A) Aftermarket three link design or multi-leaf spring design.
- 1) All components must be steel.
- 2) All mounts and brackets must be welded or bolted solid.
- 3) You MAY NOT run a dampening shock above the rear end.

a) THREE LINK DESIGN REQUIREMENTS:

- 1) Left lower bar must use minimum 16-inch center to center of heims. Lower right bar minimum 16-inch center to center of heims.
- 2) No swing arms.
- 3) Solid pull bars are required. No spring bars, rubber bushings or any type of torque device.
- 4) Pull bar must be mounted solid (No rubber or any type of cushion in the mounting bracket). Must be located at top center of rear end housing and remain centered on housing over drive shaft (1 inch tolerance left to right of the center line of the drive shaft).
- 5) May use minimum 23-inch long Panhard bar located behind rear end housing or minimum 19-inch-long J-bar mounted to a steel pinion bracket. Measurements are from center of heim joint to center of heim joint.
- 6) Must mount rear spring directly over center of axle housing.
- 7) A 4
½ inch min outside diameter spring must be used and a max height of 13 inches on either side.
- 8) No birdcages or floating mounts allowed.
- 9) Must use steel upper weight jack if spring are mounted over axle housing.
- 10) All adjustable shock mount brackets must be welded.
- 11) Limit chain allowed but rear springs must remain loose left and right with car raised.
- 12) No added weight of any kind is allowed to be bolted on the rear end.
- 13) Rear springs may have a tolerance of 5 degrees from vertical measured with straight edge on spring and a digital angle gauge.

27) REAR END:

- 1) Any steel approved OEM passenger car or truck non-cambered rear end allowed.
- 2) Must be centered in chassis.
- 3) All components must be steel, except lowering blocks, axle cap, and drive flange.
- 4) Safety hubs (floater) allowed.
- 5) No quick-change devices.
- 6) Inspection hole in housing required.
- 7) Mini-spools or Full Spools allowed. No Aluminum Spools.
- 8) Ring gear, center section and yoke cannot be lightened.
- 9) Solid steel axles and one-piece drive flanges only.
- 10) No heavy axle tubes allowed. Left and right axle tube thickness must match.

28) KILL SWITCH:

- 1) A kill switch is required within easy reach of the driver.
- 2) This switch must be clearly marked OFF and ON.

29) BATTERY:

- 1) 12 volts only.
- 2) All batteries must be mounted in a safe manner.

- 3) Top of battery must be covered.
- 4) No voltage enhancing devices, 12-volt alternator allowed.

30) STARTER:

- 1) Stock location only.
- 2) Engine must have working starter and must be capable of starting car on demand.

31) GAUGES/ELECTRONICS:

- 1) Mandatory MSD part #8727CT rev control box is REQUIRED with unaltered wiring harness (max rpm setting must be 6,200). The plug cannot be removed, and box must have its own ground.
- 2) 12-volt ignition system only.
- 3) HEI distributor only.
- 4) OEM firing order cannot be changed.
- 5) Ignition rotor, cap, coil, and module must remain STOCK OEM appearing.
- 6) No ignition boxes, remote coil, or accessories.
- 7) All wiring must be visible for inspection.
- 8) Only gauges allowed are analog oil pressure and water temperature and analog tachometer (memory recall allowed).
- 9) No electronic traction control ALLOWED.
- 10) No electronics that store information allowed....example (tach).
- 11) Fuel pressure gauge allowed.

32) ENGINE TEAR DOWN RULE:

- 1) The track reserves the right to tear down and inspect any engine at any given time.
- 2) There is no set number of wins before an engine may be torn down and inspected.
- 3) Any car that wins a race "will" be subject to a bumper-to-bumper inspection. Including but not limited to removal of intake, head, lifters, transmission, oil pan and gear.
- 4) Any failure "will" result in disqualification for the night with No Pay.
- 5) It will also result in loss of points for the night.
- 6) These rules are wrote & interpreted by the Racetrack & the Tech Officials not the Driver.
- 7) IN THESE RULES IF IT DOES NOT SAY YOU CAN DO SOMETHING THEN YOU CAN NOT.**
- 8) The assigned Technical Inspector has the final say in rules clarification. Call the track or tech official if you have any questions. Do not read between the lines, if something is not in this rule book, do not assume you can make things up on your own, ask questions clarification if you are unsure of anything.

NOTE: IT IS THE TRACKS DESCRETION TO ALLOW OR NOT ALLOW THE PROTEST OR CLAIM RULES.

ENGINE PROTEST AND CLAIM RULES:

PROTEST:

1. Any driver that finishes on the lead lap may file an engine protest.
2. The protesting driver must go directly to the tech area at the conclusion of the A-feature race.
3. The protesting driver must have in writing the Car Number being protested and have the protest fee of **\$300.00** cash. The protesting driver has five (5) minutes after the conclusion of the feature to file the protest with the head tech official.
4. After the teardown, if the engine is found to be legal as per the rules the car being protested will receive the **\$300.00** dollars cash. If the engine is found to not meet the rules the protesting driver will

get the \$300.00 protest fee back. The car found to be illegal will be disqualified and the driver will lose all points for that event. If an engine is found to be illegal, it must go thru a pre-tech before it will be allowed to race the next event.

*The tear down will consist of removing the intake manifold and one cylinder head. It will also consist of a lower engine inspection with a bore scope. If the crankshaft, rods and bottom side of piston can be seen oil pan removal will not be required. If those parts cannot be viewed, you may be required to remove the oil pan. All parts will be checked to see if they meet the rules as written along with, Bore, Stroke, Lifter inspection and a Head inspection.

5. Anyone refusing the protest tear down will be disqualified and all points earned for the year will be lost. The refusing driver will also pay a \$500.00 fine to the track before he will be allowed to race.

6. Only two (2) people will be allowed in the tech area to do the tear down for inspection. You will have 30 minutes to start the tear down and one hour to be completed for the inspection. Taking longer to complete the tear down will have the same penalty as a refusal.

ENGINE CLAIM:

THIS IS A CLAIM AND ENGINE SWAP RULE.

1. Only drivers finishing 5th thru 12th can claim an engine. The claiming driver may claim any one of the top four (4) finishing drivers in the tech area.

2. The protesting driver must go directly to the tech area at the conclusion of the A-feature race.

3. The protesting driver must have in writing the Car Number being claimed and have the claim fee of **\$2100.00** cash. The claiming driver has five (5) minutes after the conclusion of the feature to file the claim with the head tech official. **\$100.00** will go to the tow truck driver for pulling the engines.

4. If there are more than one driver wanting to make an engine claim the driver finishing furthest back will have first chance to claim. The next driver may then claim one of the three remaining finishers in the tech area.

5. Anyone refusing the claim will be disqualified and all points earned for the year will be lost. The refusing driver will also pay a \$500.00 fine and a 30-day suspension before he will be allowed to race.

6. Only two (2) people will be allowed in the tech area to remove the engine. You will have 30 minutes to start the removal and one hour to be completed for the removal. Taking longer to complete the removal will have the same penalty as a refusal.

NOTE: The engine will consist of a sealed long block including, Intake, Heads, Block, Valve Covers, Harmonic Balancer, Fuel Pump Plate and Oil Pan. All external bolt on parts will be removed.

7. Anyone purposely damaging a claimed engine before removal will be banned from the track for one year starting from the day of the claim, they also will pay a \$1000.00 fine to the track.