

I-35 SPEEDWAY 2017 through 2019 E-Modified Rules

ALL CARS MUST GO THROUGH A SAFETY INSPECTION BEFORE YOU WILL BE ALLOWED TO RACE AT I-35 SPEEDWAY.

EVERYTHING IN RED HAS BEEN UPDATED, CLARIFIED OR ADDED TO THE E-MODIFIED RULES. In these rules if it does not say that you can do it, then you cannot. These rules are published for the next 3 years and will only be changed for safety issues or parts failure.

1. ENGINE: (No crate engines)

The intentions of the engine rules in this class is to use as many OEM Parts as possible to help keep the cost of these engines down and affordable. This class is an economical class and we at I-35 Speedway will do our best to NOT let this class's rules get out of hand by allowing rules to creep and change. Please understand as we see issues with parts that fail, we may adjust these rules as needed. These changes will be for durability not performance. In these rules the term OEM means Original Equipment Manufacturer. When the word OEM is used, it is referring to likeness, fit, function and visual comparison to OEM parts, and not the OEM determination of an aftermarket manufacture building replacement parts. Before using aftermarket parts, claiming to be OEM, please read the rules and make sure those parts meet these rules. If you are not sure, please call and asked for clarification before installing them. Just because it says OEM equivalent or replacement does not mean it is a legal part.

- **Location** – Rear of engine (bell housing flange) must be at least 72 inches forward from the centerline of the rear axle. The center of the crankshaft must be within two and one-half (2 ½) inches of centerline of the ball joints.
- **Size** – Maximum size of engine block: 350 General Motors (GM) .060 max. / 351 Windsor Ford .060 max./ 360 Chrysler .040 max. Ford base engines will be 289, 302, & 351(Windsor). Chrysler base engines 340 or 360. Maximum Ford engine size is 362. All engine parts must be Ford to Ford, Chrysler to Chrysler, GM to GM (no mix and match).
- Harmonic balancer on GM minimum 6 ¾”.
- Smaller engine allowed. No stroked engines allowed.
- Original Equipment Manufacturer (OEM) firing orders cannot be changed.
- 9 to 1 compression max.
- **Heads** –
 - 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, 3970126. Minimum 76 cc. No vortec heads. Stock, no performance heads (no double humps, no 292-041 & 292-041-186 castings, no LT 1, no bowtie, no center bolt valve cover, or aftermarket allowed).
 - Ford - No angle milling of cylinder heads, No GT 40 or GT 40p head castings. No aluminum heads. No high performance and no boss heads allowed. **Minimum 70 cc.**
 - Chrysler approved castings: 3418915, 3671587, and 4027596. Minimum 71 cc.
- No porting or polishing, **3/8ths shouldered screw in stud allowed, guide plates allowed**, GM maximum valve size 1.94 intake and 1.60 exhaust valve maximum. No 2.02/1.60 allowed. 305 heads on 305 only. **Ford** maximum valve size: 1.84 intake and 1.60 exhaust. **Chrysler maximum valve size: 1.88 intake and 1.60 exhaust.**
- No Bee Hive valve springs allowed.
- **Valve Springs** - Chevy 1.260 max. PRC 1000 spring 90# @ 1.750 seat pressure and 275# @ 1.250 open pressure or Ford 1.460 max diameter single valve spring with flat dampener, **Chrysler 1.394 max. seat pressure 90 max.**

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- **Crankshaft & Rods** – 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. No light weight crankshafts, rear flange on the crank must look like a OEM crankshaft. No h-beam rods or lightened rods of any kind are allowed. Stroke must match block. 3.48 for GM, 3.50 for Ford, 3.31 or 3.58 for Chrysler. Minimum weight on crankshaft is 51 pounds.
- **Camshaft** – Hydraulic camshafts only. GM and Chrysler - 455 maximum lift at valve or .303 at the cam. Ford - 456 max lift at valve. No roller cams. **NO PUMP-UP LIFTERS of any type allowed (example, Rhoads).**
- **Rocker Arms** 1.5 ratio only, no tolerance. Self-aligning rockers approved. No roller tip or roller rockers
- **Pistons** – Any flat top, 4 valve, 2 valve, uni-brow, or dish piston allowed. Not allowed: domed pistons of any kind, **NO Lightweight, or Low drag or gas ported pistons. Pistons will be identified by the piston number on the bottom or top of the piston with a bore scope or during tear down inspection.**

2. TRANSMISSION:

- Must have all working gears, reverse, and neutral positions. **OEM Transmission must match engine type.**
- Functioning shift levers in stock location.
- Steel OEM style/size flywheel. No aluminum. No billet flywheel. Bolted directly to end of crankshaft. Flywheel must weigh 15 lbs. minimum.
- Functioning shift levers in stock location.
- Stock manual transmissions: Clutch must be 10.4-inch minimum full face clutch, stock appearing pressure plate, stock spring type disc **or Solid Hub Clutch plate is allowed. Clutch material must be fiber and cannot be ceramic, No paddle type clutches.** Clutch assembly must weigh 15 lbs. Working clutch inside of explosion proof steel bell housing with one hole for throw out bearing lever or hose. No mini-clutch.
- Bell housing must cover 270 degrees around top of clutch and flywheel area. Approved scatter shield constructed of minimum .125 by 3” steel.
- All components must rotate consistent with engine rpm while car is in any gear.
- No Bert, Brinn, Falcon, Tonganoxie, Layne transmission allowed.
- Ford: C-4 or C-6 unaltered transmission with full size working torque converter. No dummy converters
- No 2 speed power glides.
- Converters will be inspected with heat gun and visual inspection. **Converters must contain a minimum of 3 quarts of fluid.**
- Car must be able to idle in any gear.
- External lines for transmission cooler only.
- **2-1 GM OPTION #1**
 - Unaltered 3 or 4 speed in OEM production case.
 - No 5 or more speed.
- **2-2. GM OPTION #2**
 - Unaltered 3 speed automatics.
 - No TCI, CNR, etc. type torque converters. Must have a working stock torque converter. Converter must measure 10.5 inches. No dummy converters.

3. CARBURETOR:

- 4412 Holley only. Must pass go no go gauge. No modifications except removal of choke butterfly. No polishing. Stock means stock. **No billet metering blocks or base plates. No dial a jet.** Changing jets allowed. Choke horn must be intact. Engine must have a manual fuel pump stock location (no electric fuel pumps, no belt driven fuel pumps).

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4. INTAKE:

- 2 barrel cast low rise unaltered intake allowed.
- GM. – Edelbrock 2101, or Star Performance #9101, or Renegade #Ren72001
- Edelbrock 3701 also allowed, do not confuse this with Edelbrock 2701, which is not allowed.
- Ford – Edelbrock 2121 or 2181
- Chrysler Edelbrock 2176 or 3776
- No porting or polishing. No gasket matching.
- Use can use carburetor adapter, Mr. Gasket part #1933 or #1929 or Transdapt #2087. **You may also use a Billet or Phenolic adapter; all adapters must remain unaltered and NO Radius Exit Bores will be allowed. Holes in adapter must go straight through. Gaskets cannot exceed 3/16 “inch thickness combined. Total maximum thickness of the spacer and gaskets cannot exceed, 1 and 3/16” inches.**

5. OIL PANS:

- Extra capacity circle track pans allowed. Oil pumps must mount in stock location no dry sumps allowed.
- Must have 1” inspection hole above oil level for tech inspection. Crankshaft & rods must be visible through hole or pan must be removed
- Track will not replace gaskets or seals.

6. STARTER: Engine must have working starter in stock location.

7. HEADERS: Any collector type header allowed. Exhaust must be directed away from areas of possible fuel spillage. No 180 degree headers. No step down or y type headers.

8. DRIVESHAFT: 2” diameter minimum, painted white, steel, steel slip yokes only. Loop constructed of .25”x 2” steel or 1” tubing mounted 6” back from front U joint. No carbon fiber or aluminum.

9. REAR END/GEAR:

- Steel OEM Ford non chambered rear end allowed. Floater allowed. All components must be steel except lowering blocks, axle caps, and drive flange. Centered in chassis. Safety hubs (floater) allowed. No quick change devices. Inspection hole required. No Full spool. Mini spools allowed. Rear must be locked. Ring gear, center section, and yoke cannot be lightened. Solid steel axles and one-piece drive flanges only. No gun drilled axles.
- All rear end mounts and attaching mounts must be steel.
- You may run any gear ratio of your choice. **LIGHTENED RING AND PINIONS ARE NOT ALLOWED.**

10. REAR SUSPENSION:

- **10-1. OPTION #1 – 3 link**
 - Must use minimum 16” center to center of heim joint lower trailing arms.
 - Wheelbase minimum 108” and maximum 112” both sides.
 - No swing arms.
 - Solid pull bars required.
 - No spring bars, rubber bushings, or any type of torque device.
 - Pull bar must be mounted solid.
 - No rubber or any cushion in mounting bracket.

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- Pull bar must mount on top and central on rear end housing. Must be in line with axle and in line with driveshaft. 1” tolerance. Keep it straight. Do not offset 1” in back and 1” in the other direction in the front. Center of heim ends on pull bar cannot be outside of the drive shaft in the front or the rear.
- May use a minimum of 23-inch-long pan hard bar located behind rear housing.
- May also use minimum 19” long J bar mounted to “steel” pinion bracket. Center to center of Heim joints. All rear suspension parts and mounts must be steel only.
- 4.5-inch minimum outer diameter x 13” tall maximum springs must mount directly over housing center and “straight up”. No leaning of the springs is allowed.
- Springs must be tethered to lower mount.
- No bird cages or floating mounts allowed.
- Must use steel upper weight jack.
- No shock type eliminators.
- No limit chains can be used. Catch chains can be used on over slung and under slung cars, Springs but must be loose with rear end off the ground.

10-2. OPTION #2 – Steel multi leaf springs.

- Same style spring on left and right sides.
- No mono leaf or floated leaf springs.
- No composite leaf’s.
- Adjustable lowering blocks allowed.
- No 90/10 shocks on top.

11. FRONT SUSPENSION:

- Suspension components must match frame and be in stock location.
- Parts must be OEM or OEM replacement parts only and from same type of suspension except, upper A-frame and upper A-frame mounts. No take apart ball joints will be allowed.
- Tubular upper allowed.
- Tube type upper A-frame. With or without aluminum or steel cross shaft and mounts can be moved.
- “No” lower tubular A-frames allowed.
- Nova lowers allowed on small metric stub.
- No fabricated spindles. Pinto type spindles are OK. Three (3) piece spindles are allowed but you must use Speedway part numbers #91034511, #91034501 only.
- Steering box must be stock and in stock location. Steering box must be OEM only, NO Sweet or KSE type boxes are allowed.
- No center steering.

12. BRAKES:

- Disc or drum brakes may be used front and rear.
- No aluminum disc or brake calipers allowed. Caliper Pistons left and right must be the same diameter.
- Right front brake shut off Is Not allowed.
- Brake bias adjuster is allowed front to rear only. No left to right bias is allowed.

13. SHOCKS:

- No coil over shocks. No QA1 or Bilsteins.
- One shock per wheel only.
- No dampening shock above rear end.

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- Allowed shocks: Pro – SB or WB / or AFCO Series 12, 14, or 15 Only.
- We must be able to identify shocks. If not identifiable a DQ will result.
- **No rebuildable shocks allowed, no bump stops allowed. No pressure adjustable shocks.**

14. BATTERY:

- All batteries must be mounted safely with positive cable end covered.
- **12 volt batteries only. No voltage enhancers allowed.**

15. KILL SWITCH: Required within easy reach of driver and clearly marked “ON/OFF. **It is REQUIRED for the 2017 season that a Master On\Off Switch be placed behind the driver seat and clearly marked On and Off. This way all Safety Crews and Officials know when they reach your car where to find the On\Off switch on all cars.**

16. IGNITION:

- 12 volt HEI dist. only, OEM firing order and cannot be changed.
- Ignition cap, rotor, coil, and module must remain OEM.
- No ignition boxes, remote coil, or accessories.
- Keep wiring visible for inspection.
- No traction control device.
- **A MSD Soft Touch Rev Control is required. The chip maximum will be 6200 rpm. You may also use the MSD 8727ct rev control. The wiring on the 8727ct cannot be altered or changed in any way, plugs and connectors must remain intact. Wiring diagrams on both of these units must be followed and accessible for inspection.**

17. SAFETY:

- It is mandatory that a Quick Release window net secured at the bottom with latch at top be used.
- No mirrors or communication devices.
- No weights or loose objects in driver’s compartment. **No weight allowed above top tin.**
- Window nets must be bolted\mounted to the Roll Cage in some manner. It cannot be mounted to the interior tin. No clamps or pop rivets can be used to mount window net.

18. SEAT & SEAT BELTS:

- Racing seat mandatory.
- All cars must be equipped with an approved quick release type seat belt and shoulder harness securely fastened to frame and roll cage.
- Seat belt material should be at least 3 inches wide and cannot be older than 3 years.
- Seat and steering wheel may be located to suit driver’s taste, but must be kept on left side of car. No center steer.
- ******NOTE****** All Seat Belts **MUST** be mounted to the main roll cage only. They cannot be mounted to the rear section of the car or the bar that goes to the rear of the car. All Modifieds are required to mount the belts in this manner.

19. FUEL & FUEL CELL:

- **No E-85, E-98 or alcohol fuels allowed. No Racing Fuels allowed,** Pump gas only. No oxygen bearing additives. No pressurized fuel systems. Racing fuel cell required up to 32 gallons. Minimum 20-gauge steel container. Securely mounted behind rear axle. Secure with 2” wide straps .125 thickness circle the entire cell.

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Cell mounts should be steel securely welded to frame or cage. Fuel cell vents including cap vent must have check valves. Flapper valve required under cap.

- All Fuel fill caps must be tethered.
- No fuel additives or fuel scents example (grape) allowed.

20. WHEELS & TIRES:

- Hoosier G60-15 IMCA or American Racer G60 KK704 Tires only.
- Grooving, sipping, and grinding allowed.
- Bead locks allowed on right front and right rear only.
- Tire must durometer 55 no tolerance.
- No doping or softening of tires.
- No aluminum wheels. Maximum wheel width 8 inches, 8 ½ inches with bead lock wheel.
- Mud plugs on right side only.

21. FRAMES:

- Factory production complete full American passenger frames only. Frame rails must extend to a point beyond the base of driver's seat. Rear clip may be fabricated out of tubing. Front and rear pick-up loop required; otherwise bumpers or other pick-up point will be used.
- All measurements on frames must match specifications set by USRA or IMCA diagrams.
- It is highly recommended that a bar or tube be placed across the rear of the frame directly behind the fuel cell the will protect the fuel cell in case the rear bumper should come off or must be removed.

22. ROLL CAGE:

- Must consist of continuous hoops not less than 1½ inches outside diameter and must have a wall thickness of at least .095 inch. Must be frame mounted in at least 6 places. Body mounted roll cages not acceptable. 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.
- Driver's head must not protrude above cage with helmet on while strapped in driver's seat. Must be at least 3 horizontal bars at driver's door welded to front and rear of roll cage members.
- Driver's door bars must be plated.

23. WEIGHT:

- Minimum weight is 2500 pounds with driver after race. No tolerance. All lead weight must be mounted securely, with 2 weight clamps & ½ inch bolts. Lead **MUST** be painted white and have car number on the lead.
- NO lead can be outside of the body.

24. WHEEL BASE: Minimum 108" and maximum 112" both sides.

25. BODIES:

- The USRA B-Modified Body Diagram will be used for all measurements. This is the only measurements that will be used and allowed at I-35 Speedway.
- **EXCEPTIONS TO BODY RULES ARE:** E-Modifieds are allowed a five (5) inch spoiler on the rear. It will be 5 inches of material only. This will be measured from the rear deck. Any spacers between the deck and spoiler will be included in the measurement. Support braces can be 5 inches tall and will also be measured from the deck. All spoiler supports can be triangular in shape and taper down in the front to a maximum of 2

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inches high and can be no longer than 12 inches total or the IMCA spoiler supports may be used. Maximum of 3 spoiler supports can be used.

- The only thing that can go past the rear deck is the spoiler and spoiler mounts. Sail panels cannot go past the rear deck. Spoiler supports cannot be fastened to the sail panel.
- No Nurf bars or rub rails can be wider or outside the tires.
- Do Not have to run the rear filler panel
- An easily accessed inspection panel on the top tin above or in line with the pull bar must be used and in place that can be removed so inspection of the pull bar can be gained. This is a requirement no exceptions will be made.
- Numbers and identification but be 18 inches tall and 3 inches wide minimum. Numbers must be on both sides and the roof. They must be in contrasting color so they can be seen. If they cannot be seen you are required to correct so the scorers can see them.

26. BUMPERS:

- Bumpers must be used front and rear.
- Front bumper must be mounted on frame end and be of a semi-circle configuration with the bottom loop parallel to the ground.
- Front bumper must be 10 inches high from bottom bar to top of top bar.
- Material must be 1 ¼ inch minimum, 2-inch max. OD steel pipe.
- Rear bumpers may be constructed of pipe, square tubing, but must not have sharp edges.
- Rear bumpers and nerf bars must not extend beyond width of rear tire.
- Bumpers must be able to support car when lifted by wrecker.
- Rear bumper must be tethered.

27. TEAR DOWN RULES: I-35 Speedway OFFICIALS MAY REQUIRE A TEAR DOWN FOR INSPECTION AT ANY TIME. This tear down rule is in place to keep engines in this class as economical and affordable as possible. In addition, a complete full car Tech inspection can be done at any time. If this is done, anything found illegal on the car will result in a disqualification for the night a loss of all points for the night and a \$250.00 fine.

28. EXCHANGE RULES:

- Only parts eligible for exchange are the shocks (all four) and carburetor, \$150 to exchange.
- Drivers eligible to exchange must be on the lead lap of the A-Feature. If there are two drivers exchanging the same car after the feature event, the first driver making the exchange will receive the exchange.
- Exchanging Driver must walk to the Tech Area immediately following the A-Feature event. *Do not drive into Tech area unless in the top 4.* He/She then has ten (10) minutes to make the exchange after the drop of the checkered flag. The exchange must be written out, state what is being exchanged, signed by the initiating exchange driver and have the money (cash only) for the exchange with it.
- Exchanging driver can only exchange a total of up to one (1) time per racing season. Driver being exchanged can be exchanged up to two (2) times per racing season. Any driver refusing the exchange will be disqualified for the night. They will not receive any points or pay earned that night. Any Driver refusing a second exchange during a racing season will be disqualified for the night, they will not receive any points or pay earned that night, and will lose all points earned for the year. Exchanged parts must be run the following week on the driver's car initiating the exchange.
- Top 5 in points cannot utilize exchange rule with someone ahead of them in points.

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It will be the responsibility of the driver to know what can and cannot be done to his or her car. It is not the responsibility of I-35 SPEEDWAY tech officials to assure that any car is legal. It is the driver's responsibility. If you are not sure of any rule, ask before you win. IMPORTANT NOTE: COMPETITIVE RACING CAN RESULT IN INJURY AND/OR DEATH TO THE PARTICIPANT. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATION OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS. The rules and regulations are intended as guides for the conduct of the sport. They are in no way a guarantee against injury or death to a participant, spectator, officials, or other.

30. LINE UP PROCEDURES: Described in I-35 Speedway General Rules.