

# **2025 Midwest Pavement Midgets**

## **Focus/Ecotec Midget Rules**

### **Scope of Rulebook**

#### **New Rules and Rule Changes**

Midwest Pavement Midget (MPM) rules may be added, deleted, and/or amended from time to time and at any time by the organizer of the events. It is the participant's responsibility to stay abreast of all rule changes that may affect the participant. on Additions, deletions, or changes to the Rulebook (collectively referred to herein as "amendments") will be communicated on Midwest Pavement Midgets Facebook page.

Amendments are effective and enforceable immediately upon publication on the Midwest Pavement Midgets Facebook page. Racers are responsible for consulting and staying up to date with any rules and related information published.

#### **Age – Focus/Ecotec Midget**

**Age** – Driver must be at or over the age of sixteen (16) years to participate in the Focus/Ecotec Midget division of MPM. A copy of the participants birth certificate must be provided at registration if the participant is between the age of 16 to 17. All participants between the age of 16 to 17 are required to have a minor release form signed by both parents prior to competing in the event.

#### **Rookie Guidelines**

- A. Only raced three previous races in a midget.
- B. Must start at the tail end of all events.
- C. Must run three full feature events with yellow flag.
- D. Race director will inform rookie of new status.

#### **Spin-Out Rule**

- A. First offense must go to the back of the field for restart.
- B. Second offense must pull off track.
- C. Points will be awarded for laps completed.
- D. If two cars are involved the tap out rule is enforced. Any explanation will be at drivers meeting.

#### **Lapped Rule**

Any car lapped more than twice must pull off track. Points will be awarded on laps completed.

## **Focus/Ecotec Midget Car Rules**

**Cars** – all phases of design and construction are subject to the approval of the Technical Director. The Chief Steward and the Technical Director may exclude any car, design or construction, which they deem unsafe or do not meet specifications, the spirit and/or the intentions of the rules contained herein:

### **Dimensions and Weight**

- A. Wheelbase – must be at least 66 inches and no more than 76 inches.
- B. Width – overall width will be a maximum of 65 inches, outside to outside of tire wall.
- C. Maximum left side weight without driver is 59% of all Midwest Pavement Midgets.
- D. The right front tire cannot be farther out than the right rear tire when the right rear wheel is set at maximum offset. (as measured straight line along outside RR to outside RF)
- E. All cars must adhere to the attached weight rules table including driver.
- F. Additional bolt on weight must be mounted and fastened to the frame and/or chassis in a secure manner. Weight must be mounted in an area between bottom frame rails, front and rear axles and no higher than mid rails at cockpit. All weight must be mounted within confines of frame. NO BALLAST/WEIGHT IN NERFS, BUMPERS, FRONT AXLE. All weights must be painted white with number of car on the weight.

### **Car Construction/Body**

- A. All cars shall be rear drive only. Engine offset is limited to a maximum of one (1) inch, (two inches overall), from the chassis centerline as measured at the centerline of the crankshaft. Engine inclination is limited to thirty degrees from vertical as measured from the vertical centerline of the cylinder bore.
- B. Only torque tube type drivelines, utilizing only one u-joint, will be allowed. The torque tube must be bolted directly to the face of the rear axle center section without any interruptions; the torque tube must be one solid piece. Torque tube hoop and/or strap highly recommended. A driveline containment system utilizing steel shield bolt to engine plate or containment blanket to cover torque ball and u-joint is highly recommended.
- C. Radius rods may not be attached within the confines of the cockpit.
- D. The driver shall be seated directly behind the engine; centerline of top of seat at the driver's helmet can be no more than one (1") inch off centerline of roll cage.
- E. Only standard type Midget Car bodies, tail tanks and hoods will be permitted.
- F. The front part of the body, known as the nose assembly, shall not be wider than parallel lines of the body and may not exceed the width of the frame. The nose assembly may not extend forward beyond the confines of the front bumper. (See 408 for bumper rule)
- G. The engine must be covered with a cowl or hood secured in place. The hood or cowl need not enclose the sides of the engine.
- H. A forward-facing scoop, or ducting, supplying "forced air induction" to the injection inlets is not permitted. A hood scoop to allow air to the air filter is permitted, provided that it does not feed into a contained air box, which would be considered to be forced induction.
- I. Right side cockpit body panels may be a maximum of thirty-six (36) inches high as measured from the bottom frame tube. Opening must be 150 square inches and not distract drivers vision determined by chief steward.

- J. Left side cockpit body panels may be a maximum of thirty-six (36) inches high as measured from the bottom frame tube. Opening must be 150 square inches and not distract drivers vision determined by chief steward.
- K. Sun visors on roll cage will be limited to eight (8) inches tall. Visors that restrict driver's vision at the discretion of officials will not be permitted.
- L. Only steel, aluminum, or carbon fiber floor/belly pan are permitted. The floor/belly pan may not extend rearward past the leading edge of the rear axle and must be flat from side to side without any aerodynamic aids. Horizontal panels may not extend below the plane of the floor/belly or fuel tank. It is recommended that a fireproof absorbent pad be used under the engine on pavement.
- M. Sun visors must not extend forward more than seven (7) inches from the front of the forward most edge of the roll cage/halo tube and may not be wider than the width of the cage; sun visors must be flat on both sides. For fan recognition, all teams are encouraged to place the drivers' name on their visors.
- N. An effective firewall must be installed between the engine compartment and the cockpit. It must be as leak proof as practical.
- O. The motor plate may not be made from carbon fiber, or any type of composite materials.
- P. Airfoils, wings, splitters, spoilers or other aerodynamic appendages will not be permitted. The Chief Steward or Technical Director may have any panel or part removed which in their opinion is not within the spirit or intent of this rule.
- Q. One (1") inch turnout allowed on all body and sail panel edges, except sun visor. Up to a total of 100" of wicker is permitted, not to exceed One (1") turnout. This includes the radiator exit.
- R. All paneling including Floor Pans must not extend past edge of frame rails more than thickness of material.
- S. Rear view mirrors are not permitted.

### **Roll Cage and Chassis**

- A. Frame and/or chassis must be constructed of 4130 normalized tubing.
- B. The roll cage should extend two inches above the driver's helmet when seated in a driving position. A halo may be permanently installed to satisfy this requirement.
- C. Roll Cage Construction cars constructed after 1/1/98, main uprights forming the roll cage must be a minimum of 1-3/8 inches O.D. x .095 wall thickness 4130 normalized tubing.
- D. No water or oil coolers are to be placed above or beside the cockpit opening.

### **Fuel System**

- A. A conventional tail tank, fuel cell and fuel contained must be carried on the centerline of the chassis and be located behind the driver. All cars must be equipped with a fuel cell and tail tank meeting the requirements of SFI Specifications 28.2
- B. The minimum capacity of the tank must be 18 U.S. gallons.
- C. All tanks must have a minimum of four mounts to the chassis.
- D. Fuel tanks may not be mounted to the chassis utilizing any portion of the access plates or the nut plates bonded into the fuel bladder.
- E. The engine must be equipped with a fuel shut-off device located within easy reach of the driver.

- F. It is highly recommended that the fuel tank has an adequate supporting structure under the forward section of the lowest portion of the tank. The structure should follow the contour of the tank and be welded securely attached to the frame of the car on each side.

### **Bumper/Nerf Bars**

- A. The car must be equipped with a rear bumper at all times.
- B. Front and rear bumpers and nerf bars must be constructed of magnetic and or stainless steel (NO TITANIUM) tubing with a minimum O.D. of 7/8 inch and having a minimum wall thickness of .065 inch and a maximum wall thickness of .120 inch. A maximum of three horizontal and/or three vertical tubes are allowed in the construction of the nerf bars.
- C. All cars must have a tubular front bumper extending forward no more than 21 inches from the leading edge of the front axle. Bumpers must be constructed so as not to cause a safety hazard.
- D. The right nerf bar cannot extend beyond the outside of the right rear tire.

### **Steering and Suspension**

- A. Removable steering wheels incorporating a quick release mechanism conforming to SFI Specification 42.1 are mandatory. Pip pin type mechanisms are not allowed.
- B. Welded aluminum or titanium suspension parts are prohibited exception of Jacobs ladder (Watts link)
- C. Drag link straps are highly recommended.
- D. No cockpit suspension adjusters will be allowed. A brake bias adjuster does not count as a suspension adjuster.
- E. No independent suspension.

### **Axles**

- A. All front axles must be constructed of SAE 4130 steel or a steel alloy equivalent in structural strength. Titanium front or rear axles are not permitted.

### **Wheels & Tires**

- A. Bleeders are NOT permitted.
- B. The number allowable wheels are restricted to two (2) front wheels and two (2) rear wheels on each car.
- C. The wheel diameter must be 13 inches.
- D. The wheel width is limited to eight (8) inches for both front wheels and the left rear.
- E. The right rear wheel width will adhere to the attached table.
- F. Direct mount or spindle mount wheels are not allowed on the right front.
- G. Splined front hubs/wheels will not be allowed.
- H. The use of full-face brake scoops and/or wheel covers on the inside of wheels is not allowed.
- I. All bolts are mandatory in bead lock and wheel centers.
- J. The same right rear tire used in qualifications must be used to start the main event. If the right rear tire is changed before the start of the main event the car must start at the back of the field.

- K. No tire changes are allowed on the track during any heat race or feature. The driver must pull the vehicle off the track. Points will be awarded on laps completed.
- L. Any device(s) used for warming the tires prior to competition is prohibited.
- M. First (1<sup>st</sup>) Place, Second (2<sup>nd</sup>) Place, Third (3<sup>rd</sup>) Place and a randomly drawn finisher will have a tire sample taken from their car and sent to a certified lab for testing of any solvents or chemicals that alter the compound of the tire.
- N. Any solvents or chemicals applied to the tire that alter the chemical makeup of the compound or have the effect of altering tire durometer is prohibited.
  - a. First Offense – Entrant/Driver: Forfeit of purse for the event, \$2,500.00 fine.
  - b. Second Offense – Entrant/Driver: One (1) year suspension, forfeit of purse for the event and \$10,000.00 fine.
- O. Tire Protest is a \$500.00 fee to be paid to the competition director before the event. If tire sample is found illegal, protest fee is returned. If tire sample is found legal, the protested entrant will receive a new tire replacement.
- P. Siping tires is allowed.
  - a. 3/32 depth of sipe.
  - b. No siping from sidewall to sidewall.
  - c. Seven sipes per tire in circumference around the tire spaced equally.

### **Throttle**

- A. Throttle toe straps are mandatory. A minimum of two (2) return springs must be connected to the throttle and at least one of these must be connected to the butterfly shaft.
- B. The throttle pedal must have a wide-open stop.

### **Brakes**

- A. No electronic controlled brake bias adjuster (manual adjustment only)
- B. If at any time during competition it becomes evident that a car is without brakes, the necessary repairs must be completed before car can continue in competition.

### **Engine Size Limits/RPM Limits**

- A. The attached table will be the only engine combinations allowed.
- B. Must be normally aspirated, internal combustion, four cycle, reciprocating piston type, incorporating a maximum of four (4) cylinders. Only one spark plug per cylinder is allowed.
- C. Midwest Pavement Midgets reserves the right to adjust rules or disallow any engine for competition, which in its judgement does not meet the spirit and intent of competitive racing, in regard to cost and/or performance.
- D. Engine claim rule: Engines may be claimed for \$15,000, payable from car owner to car owner only. Limit 1 claim per season. Exhaust header and power steering pump stay with the original car – all other components go with the engine. Engines from cars that finish in 1st, 2nd, or 3rd place may be claimed. The person making the claim must have completed the race and finished behind the car whose engine is being claimed.
- E. The ultimate tool to keep excessive money from being spent on these engines will be the claim rule. Claiming an engine will be everything except the power steering pump,

and header on an Ecotec. Claiming a Focus engine will be the same except the clutch and bell housing will remain with car. In both cases the ignition, wiring harness, go with the claimed engine. Plumbing will remain with the car.

## **Fuel**

- A. Pure Methanol is the only approved fuel. (NO ADDITIVES)
- B. All fuel is subject to testing at any time. Any fuel that does not conform to MPM standards, as administered at the track, will be considered illegal. The use of illegal fuel could result in disqualification from the event.

## **Ignition and Electronic Equipment**

- A. All cars must be equipped with ignition switch or emergency shut-off located within easy reach of the driver.
- B. EFI systems are permitted.
- C. Any ignition, other than magnetos, must be approved by MPM prior to their use in competition. It is the responsibility of the participant, not the manufacturer, to obtain proper approval.
  - a. Current list of approved electronic ignitions for national events:
    - i. MSD programmable 6214, EFI R1i (Red or gold), Electromotive, Magnetos, Performance Electronics PE3-IG2.
- D. All Ignition units must have download cable available. Electromotive and magnetos excluded.
- E. Electronics that provide traction control are prohibited. All electronic components may be inspected, sealed or confiscated by Midwest Pavement Midgets at any time.
- F. Electronic ignition systems may only be used to control and collect data for ignition; coil(s), trigger(s), spark curve(s), battery voltage, and maximum RPM limits. Electronic ignition systems may also be used to collect data on water temperature, oil pressure, fuel pressure, and LAMBDA. However, this data cannot be used to control the ECU.
- G. The use of electronic logic processors of any type to control any function of the race car and/or any system for gathering continuous data from any function of the race car is strictly prohibited for exception of ignition.
- H. Tachometer with water temperature, oil pressure, fuel pressure, and LAMBDA collection capability are the only item approved for use to collect/record data other than electronic ignition system. Specific device approval is at the discretion of the chief steward.

## **Safety Equipment**

- A. Approved aluminum and composite seats may be used. No fiberglass. Seats must be mounted with a minimum of four bolts 5/16 diameter. Seats must be installed and used in accordance with manufacturer's instructions. Approved full containment seats are strongly recommended.
- B. It is mandatory that all cars have a headrest of high-impact, shock-absorbing material meeting SFI Specification 45.2 behind the driver's head with a minimum thickness of one (1) inch.
- C. Seat belts must meet SFI 16.5 or SFI 16.1, be within manufacturer expiration label. (must have label) Seat belts must be installed and used in accordance with manufacturer's instructions.
- D. Helmets - All participating drivers must wear safety helmets designed specifically for auto racing that meet or exceed the SA 2015 or SA 2020 Snell Foundation or SFI Foundation 31.1 Specifications and are labeled as such. Helmets will be subject to inspection at each event by the Technical and/or medical representative.
- E. Uniforms – all drivers must wear fire resistant underwear, socks, shoes, gloves and a one-piece uniform fitted snugly around the neck, wrists and ankles.
- F. Arm Restraints – Arm restraints are mandatory and must be worn at all times during competition.
- G. Roll Cage Nets – Roll cage nets are not required with full containment seats. If a car is not equipped with a full containment seat, the car is required to be fitted with roll cage nets on both the left and right sides of the roll cage. All roll cage nets must conform to SFI Specification 37.1, which specifies a functional quick release opening mechanism. Caution should be used when positioning head restraining nets to be certain that the driver's head cannot get under the net in case of an accident. The bottom of the roll cage net should be as close to the top of the shoulder as possible.
- H. An SFI approved head and neck restraint system is highly recommended.
- I. One-way radio/raceceiver mandatory.
- J. Wi-Fi, cellular, or satellite device (including cell phones and smart watches) in or attached to the race vehicle or the driver will not be permitted.
- K. All forms of vehicle position system (GPS) are not permitted.

## **Focus/Ecotec Midget Engine Rules**

The goal of this midget series is to provide competitive professional racing with production based engines that can be built for \$15,000 or less in their complete form. At this time the series will work with the GM Ecotec 2.4L and Ford Zetec 2.0L Focus Engines. Requests have been made to allow Honda and other engine manufacturers, due to the additional costs of these engines they will not be allowed at this time.

## Final gear rule for Grundy County Speedway is 5:20.

Engine	Weight	Wheel Size	Restrictor	Porting	Cams	Pistons	Compression
Stock Ford Focus 2.0L Zetec	1075	12	No	No	Stock	Stock	9.9:1
Ford Focus 2.0L Zetec with cams	1100	10	No	No	Yes	Stock	9.9:1
Ford Focus 2.0L Zetec with cams and pistons	1125	10	No	No	Yes	Yes	11:1
Ford Focus 2.0L SVT with pistons **	1150	10	No	No	TBD	Yes	11:1
GM Ecotec 2.2L with cams 30 degrees Max Layover Wet Sump	1100	10	No	No	Yes	Stock	10.3:1
GM Ecotec 2.4L 30 degrees Max Layover Wet Sump	1125	10	No	No	Stock	Stock	10.7:1
GM Ecotec 2.4L 30 degrees Max Layover Dry Sump	1150	10	No	No	Stock	Stock	10.7:1

\*\* The Ford Zetec SVT engine will be allowed for drivers over 200lbs. Driver will be weighed without race gear and MUST weigh more than 200lbs – no exceptions. The spirit and intent of the 200lbs+ driver rule is to allow heavier drivers (who consistently weigh more than 200lbs) be competitive.

No interchanging heads between the 2.2L and 2.4L Ecotec engines.

Must use correct engine combinations with engines and blocks.

The only titanium allowed is valve spring retainers.

No titanium

- A. Crankshafts
- B. Piston and Rods
- C. Valves

No after-market cams in the 2.4L Ecotec (stock only) LE5 cams.

### Engine Protests

Phase 1 - \$1,000.

- A. Cams checked
- B. Crankshaft scoped
- C. Intake and exhaust scoped
- D. Grundy County Tech runs Wistler compression inspection

Phase 2 - \$2,500

- A. Complete engine tear down
- B. If found guilty owner and car lose all points, one year tech supervision from date of infraction.
- C. If found guilty again further penalty will occur with fines.
- D. Protester will be refunded all money if found guilty.
- E. If not found guilty money to be awarded to the accused in each case.



### **Allowed Focus Engine Improvements**

- A. Connecting Rods – adds durability Eagle CRS 5483F3D or equivalent
- B. Pistons – Stock compression retain the original OE piston top profile
- C. Pistons – 11:1 category JE 298717 or equivalent
- D. Valve Springs – Crower 84169 or equivalent
- E. Cams – Cat cams 17 grind is the most available current camshaft. (In the future a better cam will be available based on the testing we are working on now. It may be advantageous to make that grind the “spec” cam eventually. People will likely want that due to improved bottom end power over the Cat 17)
- F. Valves can be replaced with non OE valves so long as they are OE dimensions.
- G. Oil Pump – It is encouraged o either change the oem gears or the entire pump with an aftermarket pump. There are known durability issues with the stock pump.

Engine Block, Cylinder head (no porting), Crankshaft, must remain stock.

### **Allowed Ecotec Engine Improvements**

The only parts that are allowed to be changed are:

- A. Connecting rods – aftermarket rods tent to be heavier but more durable
- B. Pistons (provide the top of the piston maintains OE profile) Compression must remain stock
- C. Rings
- D. Valve Springs
- E. Ecotec engines can have the balance shafts removed
- F. Ecotec parts must remain within the 2.4 displacement category. No interchanging with 2.2 platform for example. Cylinder heads must be LE5 (second generation) no porting is allowed.

### **For Both Engines**

Cylinder heads nor engine block decks can be cut in order to raise compression. Machining is for cleanup only. A thicker head gasket must be used if machining increases the compression beyond .3 of a point.

Injector size will be a maximum of 2 3/8” butterfly plates.

No aftermarket crankshafts are allowed.

No lightening of any engine parts will be allowed including gun drilling camshafts.

No titanium parts are allowed in either engine with the exception of valve spring retainers. (titanium retainers are commonly included with spring kits so it is false economy to throw them away)

**All MPM owners, drivers and pit crew must abide by track rules.**