



2027 Midwest Hornet Dirt Series Rule Book

1) Body & appearance

- Any FWD compact with 3- or 4-cyl inline engine; unaltered OEM-appearing steel body. May replace doors (only) with steel sheet metal. (18 gauge minimum) Body panels must be bolted or welded. No wagons, convertibles, two-seat sports cars, or Honda CRX. Max wheelbase **107 in**, OEM steel floor pan; inner fenders must stay. Hood/trunk fastened; all glass, exterior lights, trim, and hood insulation removed. Dash may stay or be removed. Max 7 in front/rear sun visors. Skirting OK if OEM in appearance. Main firewall must remain. VIN must be visible & unaltered (Exception under Engine Section). Mirror covers may not be longer than 14" at the widest point. A Passenger door sun visor may not exceed 5" tall at the tallest point.
- **Must start race with the Front Bumper Cover SECURELY attached.** One 1.75" OD max tie bar ahead of radiator. Rub rails max 1" x 2", bolted flush; no sharp edges.
- Approved nose pieces: Five Star, MD3 or Dominator—must not exceed front-tire width. 78" width max

2) Roll cage & door bars

- Six-point, full-perimeter cage, **1.5" OD x .095"** wall minimum. Top-halo crossbar **1.25" OD or greater**. Rear hoop X-brace + rear kickers required. Forward brace to front strut towers allowed. Welded to adequate plating.
- No square/galvanized/pipe/brazed joints. Driver: 3 horizontals + verticals; Passenger: 2 horizontals + verticals.
- 18-ga (0.049") steel driver door plate from top bar to frame and B-post to 5" ahead of seat. Helmeted head below halo; **front & rear tow hooks mandatory**.

3) Frame & Chassis

- Subframes stock & unaltered
- Wheelbase only 1" difference side to side, max.

- May run 1 - 1.5" OD additional radiator protection bar
- May replace core support with metal tubing. Frame rails should remain stock to the factory bumper placement. (Exception: may cut off and rebuild bent frame rails no further than 12' back from factory bumper placement. Must provide picture evidence of frame rails being bent) No bars should protrude from the hood or be excessive in structure.

4) Cockpit / driver compartment

- Must have at least 3 windshield bars.
- Aluminum high-back seat, **3/8"** hardware, mounted to cage. Driver sealed from track/engine/trans/fuel.
- No mirrors. Remove flammables, radios, airbags. Front & rear firewalls intact/no holes. Interior open. No decking. No loose objects or weights.
- The front dash may not extend past the shifter. May run minimal side, angled "pods" for gauges pointed at the driver. Must not be a complete top.
- Must run firewall between fuel cell and cockpit if utilizing fuel cell in the trunk. May remain open if running stock fuel tank.
- May remove speaker deck, but must have at least, 1.5" strut tie bar and run a firewall with upper decking no more than factory sizing. Must run trunk lid.

5) Steering

- OEM steering in OEM bolt pattern/location; OEM linkage matching frame. No center steering. Quick-release **metal** coupling allowed; plastic not allowed. May run aftermarket outer tie rod ends.
- OEM column may use solid shaft. May remove OEM column.
- No aftermarket remote-reservoir power steering. No electric power steering, unless equipped with from the factory and VIN specific.

6) Suspension

- All components & mounts **unaltered OEM** matching year/make/model.
- Brace bar allowed between strut towers front & rear. No weight jacks, racing components, or traction devices. Rear wheels must track with fronts. No more than ¼" rear toe.
- No more than **4°** of camber on LF and LR and up to **6°** camber on RF and RR.

7) Springs, Shocks & Struts

- OEM shocks/struts in OEM locations; no adjustable or pin-down units; **no bump stops** (including OEM). OEM or OEM-replacement springs only; Springs may be modified, but must mount like OEM. Springs may be welded or tied to the strut body
- **Struts/shocks must compress and rebound without aid.**
- Spring rubbers are allowed. No strut boots/covers. No aluminum/titanium components.
- No cased or canister style struts

8) Electrical

- One **12-V** battery; positive terminal covered; in cockpit it must be in a **marine case** and metal-strapped to floor/cage.
- OEM starter/location; car must leave staging unaided.
- No phones, unapproved cameras or listening devices (Raceceiver one-way mandatory).
- 12-V ignition only; **no ignition boxes or chips**; Ignition components may be trimmed back cleanly. May use a "Reaper" or other race harnesses.
- ECU may be **tuned**.
- Kill switch within reach, clearly marked ON/OFF.
- Transponder must be mounted on the rear axle. **Must be mounted in the center axis of the rear wheel along the axle and must be clear of any obstructions or reflective material.**
- May swap Drive By Wire throttle bodies to Drive By Cable. Throttle body must swap manufacturer to manufacturer. (i.e. Ford to Ford, GM to GM, etc.) Driver must present the proper information to the Tech Official prior to the event. Cannot change engine components to use, but can swap wiring harnesses to achieve the Drive by Cable setup. (For example, 2005-2006 Cobalt can swap to a Cavalier harness and throttle body, 2008-2010 Ford Focus can swap to a 2005-2007 Focus throttle body and harness, etc.) Intake manifolds must match VIN

9) Fuel system & induction

- **Gasoline only**, max **93 octane**; **no E85** or additives. If OEM tank ahead of rear axle is retained, add skid/shield under it. If tank behind axle, use **max 8-gal** cell above trunk floor on **1" square tube frame** or **two 2" x .125" steel straps** around the cell. Fuel Cell must be in a full metal container. No single wall thickness fuel cell, no plastic fuel cells. Metal firewall/cover between driver & cell. Vent/cap must have check valve; if no aircraft-style filler, add flapper/spring/ball roll-over valve.

- External electric pump allowed **only with** aftermarket cell and keyed to ignition. No cool cans.
- Fuel lines through cockpit must be **steel**. Aftermarket fresh-air pipe & filter OK; no ram-air/direct outside air.

10) Tires & wheels

- DOT passenger tires only, **13/14/15/16"** diameters; **minimum 50-series**. **No** racing/mud/snow, no recaps
- **No** softening/conditioning/grinding/sanding/siping/grooving.
- **Wheels:** Racing steel wheels or OEM Aluminum wheels allowed. Standard bead bump, **max 7"** width, **offset 4.0–5.5'**, No bleeder valves.
- **Steel 1" OD lug nuts** on steel wheels. **ABSOLUTELY NO FACTORY STEEL WHEELS ON THE RIGHT SIDE.**

11) Brakes

- Steel, unaltered **OEM** 4-wheel disc or drum matching the car. OEM master in OEM location.
- **No** shut-offs, bias adjusters, or electronic actuators. **Steel** lines; visible for inspection. **No ABS.**
- Parking brake disabled for racing by zip tying or cutting the wire
- Must retain **OEM hub/rotor/caliper dimensions**.
- All wheels must stop when brake pedal is pressed.

12) Driveline / driveshafts / rear end

- OEM driveshafts/axles. OEM rear end assembly matching year/make/model.
- Must utilize VIN matching bolt pattern

13) Transmission & differential

- May swap transmissions to non-VIN matching transmissions. Must swap manufacturer to manufacturer (i.e. GM to GM, Ford to Ford, etc). May not modify the engine block to fit transmission. May weld in different mounts for transmissions. (i.e. Cavaliers may swap in Cobalt, HHR or Vue transmissions) All forward & reverse gears must operate. OEM flywheel/flexplate/clutch/torque converter. No aluminum or lightened flywheels.
- **1" inspection hole** at top of bellhousing. No coolers in cockpit.
- **No** mini-clutches, couplers, CVT, torque-dividing final drives, or locked differentials.

- No Limited Slip Differentials including factory and including LSD Blocks.

14) Engine

- OEM engine in OEM location; **inline 3 or 4-cyl** only (DOHC recommended). OEM crank/rods/valve sizes/stroke; no aftermarket racing heads; no “high-performance”/sports-car engines. **No** turbo/supercharger/rotary.
- VIN Exception: Older “Pushrod type” 2.2/2.4 Cavaliers/Sunfires may swap to a 2.2 Ecotec motor and transmission only. Must follow all other rules.
- No headers, exhaust manifold must match VIN. No OEM headers allowed, if your VIN came equipped with a header, you must find a suitable OEM manifold. Confirm replacement with Tech Official for suitable manifold replacement
- **Max 2.0" OD single exhaust** from manifold, extending past front firewall; no exhaust in cockpit.
- Variable cam timing must be **disabled** if present. Wires must be removed from the Wiring Harness, not just unplugged. No “pinning” VTEC in place.
- **Max .020" overbore** with OEM-type pistons.
- Balance shafts may be removed.
- Belt-driven accessories may be removed; crank balancer remains. No lightened Harmonic Balancers allowed. Cam driven power steering may be removed if desired.
- Solid mounts/safety chains allowed.
- May deck a head .020" max. Head studs and crankcase studs allowed.
- No adjustable timing tensioners
- No V-TEC killer cams, no regrind cams, no aftermarket valve springs.
- May run a dual fan or aftermarket electric radiator fan and radiator.
- May swap automatic chassis to accept a manual transmission.

15) Weight

- **Minimum 2,200 lb** post-race with driver. **No ballast** of any kind. Any part deemed as ballast will result in disqualification. **Gutting is allowed**, but no added weight.

16) Personal safety gear

- Helmet **Snell SA2015, SA2020 or SA2025**. SFI full fire suit **required**. Fire-retardant gloves, shoes, required. If using HNR (Head & Neck Restraint), right & left seat head supports required. Window net: **16" x 20"** min, top-front latch; visor $\leq 4"$ allowed.

Belts: SFI 5-point, **min 3"** (2" permitted with HNR); securely mounted to main cage.
(Belts ≤ 3 years recommended.) Collapsible shaft recommended; FR head
sock/underwear recommended.

17) SERIES Protesting

These rules apply to SERIES events only. A Sanctioned track MAY choose to follow them at their own discretion.

- Protest: Any driver finishing on the lead lap of the Feature may protest another driver finishing on the lead lap of the same race.
- Must declare to MHDS Tech Official within 5 minutes of the completion of the Feature event with **cash** present.
 - \$500 – Cylinder Head inspection (includes cams and/or valves, port and polish, springs, lifters up to the Tech Officials discretion), Transmission inspection, Exhaust or Intake Manifold Inspection. *Cylinder Head does not have to be removed, UNLESS REQUIRED BY THE TECH OFFICIAL. The Tech Official has the right to inspect, or send parts off for further inspection. If parts must be sent off for inspection, the **PROTESTING** driver must pay \$200 additional for shipping costs.
 - \$300 – Throttle Body Inspection or One (1) strut inspection at the location request of the **PROTESTING** driver
- Half of the money goes to the Tech Official/Series.
- If the part is deemed **Illegal**, the remaining half is returned to the **PROTESTING** driver.
- If the part is deemed **Legal**, the remaining half is given to the **PROTESTED** driver.
- A driver may only protest 2 times in the course of a season, and may only protest 1 time during an event. The Tech Official may refuse a protest if not deemed warranted
- If the **PROTESTED** driver or car owner refuses the protest, they are DQ'd from the event and fined \$500 for the first refusal. The fine must be paid before the driver and/or car can race again. The car must be inspected before allowed back. In the event of a second refusal, a \$1,000 fine, DQ and loss of all points will be the result.

18) Disqualification

- First Offense for DQ on Engine Modifications Deemed Blatant: Loss of all event points, \$500 fine and one (1) race suspension.
 - Car must be pre-teched before returning back to racing.
 - Fine must be paid before driver and/or car returns to race with the series.
- Second Offense for DQ on Engine Modifications Deemed Blatant: Full Suspension from the remaining series events for the year.
- Once the driver/car leaves the Tech Area following a DQ, the driver cannot seek to reverse the decision.

- Parts may be confiscated by Tech Officials for further testing/research.

19) Cam, Bore and Other Measurements For GM L61 Ecotec

(Tech Officials have other measurements for all Makes and Models: Reach out to ensure you will pass inspection)

Cams: (Measurement Directions: Base-Lobe=Lift)

Cam Measurements .235" Max

Bore/Stroke:

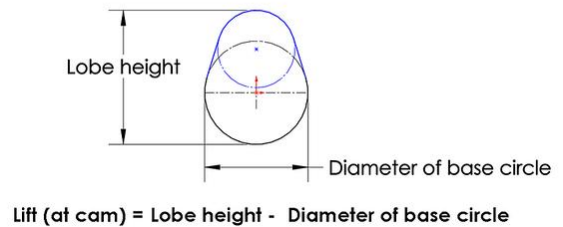
Bore – 86mm

Stroke – 94.6mm

Throttle Body:

60mm

Measuring Camshaft Lift



20) Engine Sealing Rules & Procedures

1. Purpose of Engine Sealing

The MHDS Engine Sealing Program is designed to promote fair competition, reduce unnecessary protests, and provide a cost-effective verification method for competitors. Participation is optional.

2. Optional Participation

- Engine sealing is **not required** for competition in the Midwest Hornet Dirt Series.
- Drivers may choose to compete with or without a sealed engine.
- Sealed engines **may** reduce the likelihood of protest and teardown.

3. Official MHDS Seals

- All engine seals must be installed **only by authorized MHDS Tech Officials**.
- Official MHDS seals will be used and recorded at the time of installation.
- Seal placement and documentation will be determined by MHDS Tech Officials.

4. Seal Integrity

- Any engine seal must remain **intact, unaltered, and clearly identifiable** at all times.
- If a seal is:
 - Broken

- Tampered with
- Altered in any way

It will be under further technical inspection.

5. Tampering & Penalties

- If a seal is found to be tampered with, or if any internal engine components have been changed after sealing:
 - The driver will receive an **immediate 1-year suspension** from all MHDS-sanctioned events.
- This rule applies regardless of intent.

6. Seal Removal & Resealing

- If an engine seal is removed for any reason **other than official MHDS Tech inspection**:
 - A **\$25 reseal fee** will be required.

7. Inspection Rights

- MHDS reserves the right to inspect any sealed or unsealed engine at any time.

8. Compliance

- By participating in any MHDS-sanctioned event, all competitors agree to abide by these engine sealing rules.
- Failure to comply may result in penalties, disqualification, fines, or suspension.

9. Commitment to Fair Competition

The Midwest Hornet Dirt Series is committed to maintaining a level playing field for all competitors. The engine sealing program is intended to protect both competitors and the integrity of the sport.

If you have questions pertaining to the Rule Book, reach out to Tim Day or Chris Albright or email: midwesthornetdirtseries@gmail.com

MIDWEST HORNET DIRT SERIES (MHDS)

ENGINE SEALING TECH SHEET

- **Date:** _____

DRIVER INFORMATION

- **Driver Name:** _____
- **Car Number:** _____
- **Phone Number:** _____
- **Email:** _____

VEHICLE INFORMATION

- **Make/Model:** _____
- **Engine Type:** _____
- **Engine Code (if applicable):** _____

SEAL IDENTIFICATION

- **Seal Number(s):** _____
- **Number of Seals Installed:** _____

SEAL LOCATIONS (Check all that apply)

- ☐ Cylinder Head to Block
- ☐ Timing Cover
- ☐ Intake Manifold
- ☐ Exhaust Manifold
- ☐ Valve Cover
- ☐ Other: _____

PRE-SEAL INSPECTION CHECKLIST

(Completed by MHDS Tech Official)

- ☐ Visual inspection completed
- ☐ Cylinder head checked
- ☐ Cam(s) checked
- ☐ Valve train checked
- ☐ No visible rule violations
- ☐ Engine deemed compliant at time of sealing

TECH NOTES / COMMENTS

DRIVER AGREEMENT

I understand that:

- Engine sealing is optional but subject to all MHDS rules
- Any tampering or alteration of seals outside MHDS tech inspection will result in penalties
- Any broken or missing seal requires reinspection and a \$25 reseal fee
- Any tampered seal or altered components after sealing will result in a **1-year suspension**

Driver Signature: _____

Date: _____

MHDS TECH OFFICIAL VERIFICATION

- **Tech Official Name:** _____
- **Signature:** _____

FOR OFFICE USE ONLY

- **Seal Fee Paid:** ☐ Yes ☐ No
- **Amount:** \$_____
- **Receipt #:** _____