

# MIDWEST DASH RULES

01/14/2018

## Eligible Cars:

1. Four cylinder, front or rear wheel drive COMPACT CARS ONLY.
2. No full-size cars allowed. No SUVs, cross-overs, or vans permitted.
3. Wheelbase must be between 93 – 107 inches.
4. No convertibles allowed. No all-wheel drive allowed. No all wheel steering allowed.
5. No rear engine allowed. No mid-engine allowed.
6. No turbochargers allowed. No superchargers allowed.
7. No chemical power adders of any kind (nitrous oxide, benzene, etc) allowed.
8. Four cylinder engines may be pushrod, SOHC, or DOHC. OEM stock variable cam timing is allowed on four cylinders displacing 2.4 liters or less only.

## GENERAL BODY REQUIREMENTS:

Factory steel stock appearing bodies only.  
Bodies must follow original dimensions of factory production. Roof and body lines cannot be altered.  
Factory stock fire wall and floor pan required on both sides.  
No sharp body or bumper edges permitted.  
Hood and trunk lid must be pinned down.  
All glass and loose items must be removed.  
No boxing in of interior to right of driver.  
Motor and body must be same make.  
All composite/plastic aftermarket bodies will add 100lbs.

## ADDED CAR WEIGHT:

1. If weight needs to be added it must be securely fastened, cannot be in driver's compartment.
2. Weight must be painted white with car number on it.
3. All weights must be lead and in no less than 5lb increments, preferably bolted in a weight box.
4. Race vehicles losing weight on the racetrack will be disqualified and weight will be retained by TSR.
5. Dislodged weight cannot be returned for weighing after the race.

## CAR WEIGHT AFTER RACE:

### FWD

Minimum weight 2400 lbs < 2000 cc 2300lbs

All Cars: Maximum left-side weight 56% of total. Minimum front-end weight must be 57%.

### RWD

Minimum weight- 2450lbs

All cars 58% left side Max. Front axle 52% minimum

All weights must be properly anchored to floor pan or weight box. Weights must not be lower than bottom of frame rail.

#### DISPLACEMENT AND WEIGHT IDENTIFICATION:

The cars displacement and minimum racing weight for head configuration must be displayed on both sides of the hood in 3 inch tall lettering.

#### RIDE HEIGHT

Car must maintain a minimum of 4" ride height at frame rail.

No body panel, skirting, or lower than 5" above the ground is allowed.

No engine or drivetrain component lower than 4" above the ground is allowed.

Any car lower than these measurements per hometrack rules may be assessed a weight penalty in 2018.

#### TREAD WIDTH

Track width will be 73" as measured to the outside of the tires

#### BODY

OEM steel roof with A, B, & C post's required.

OEM or stock replacement fenders, quarter panels, doors, hood and trunk lid required.

Stock or stock appearing nosepiece required.

Maximum spoiler length 5". Spoiler may not extend outside body.

Side skirts must not be lower than rocker panel.

No air scoops or holes in hood allowed.

Front and rear bumper and bumper cover must appear stock; bumper ends must connect to body.

Stock or Lexan windshields required, all other windows (if used) must be of Lexan.

Sunroofs must be closed in with steel.

Stock appearing aluminum door skins allowed.

OEM wings permitted. No Non OEM fiberglass body panels allowed.

Composite/aftermarket made for racing bodies add 100lbs.

#### WINDOW NET:

All cars must have an approved rib type, made from minimum  $\frac{3}{4}$  inch, maximum one inch wide nylon material with a minimum one inch square opening between the rib.,

Window net in the drives side window at all times the car is on the track.

Window nets must latch at the top of the car so that window net hangs down on door or inside door when unlatched.

The bottom of the window net must be connected to the door bars and the top should be attached to roll cage if possible.

Lexan front wind wing allowed but no deflection of wind and cannot be longer than 8 inches measured along top of the door.

## FIREWALL:

Original complete factory floor pan, firewall and rocker panels with original dimensions required.

## IDENTIFICATION AND MARKING:

All car numbers must be applied in bold, contrasting colors.

No reflective (mirror) material.

Door numbers must be at least 18 inches height and neatly attached to both sides of the car.

A number 24 inches high must be attached to the roof, reading from the passengers side.

Numbers must be at least 4" wide.

## ENGINE

### Engine LOCATION:

No motor setback or off set.

Approved Engines must be in original position for Make and Model of the car.

Solid motor mounts may be used.

### Engine BLOCKS:

Must be standard production OEM block. No aftermarket blocks. Engines must have all identification numbers

### PISTONS AND RODS:

RWD-Pistons must be flat top pistons, or stock configuration only. Magnetic steel rods only.

FWD- 11 to 1 compression ratio maximum.

### OIL PANS AND OIL COOLERS:

Aftermarket oil pans are approved. No dry sumps. Oil coolers allowed.

### CYLINDER HEADS: .

Cylinder head configuration must remain as produced (no porting, chamber work or bead blasting , etc.).

### CRANKSHAFT AND HARMONIC BALANCER:

Crankshaft must be magnetic steel.

### CAMSHAFT:

RWD-Only steel flat tappet camshafts are permitted. No roller cams, no hard faced overlay cams.

FWD- OEM cam drive only.

#### VALVE LIFTERS:

Steel hydraulic or solid lifters only.  
No mushroom or roller lifters permitted.  
Lifters must be original size for engine block being used.  
No rev kits permitted.

#### ROCKER ARMS:

RWD- Stock rocker arms only, no roller rockers. Roller rockers permitted in push rod engines only.  
FWD- Roller rocker arms allowed on push rod style motors.  
Stock roller tip cam followers allowed on engines that came with them from factory

#### INTAKE:

Intake manifolds must be stock OEM only, manufactured for the engine used.

#### CARBURETOR SPECS:

1. The approved carburetor is the two barrel 350 CFM (Holley 7448 only).
  - a. Body of carburetor: No reshaping, polishing, grinding or drilling of additional holes permitted. The maximum size of the bleed holes in the top of the carburetor will be 0.080 inch for all four holes.
  - b. The choke may be removed, but all screw holes must be permanently sealed. Choke horn may not be removed.
  - c. Boosters may not be changed. Size and shape must not be altered. Height must remain standard.
  - d. Venturi area must not be altered or reshaped in any manner, Cast ring cannot be removed.
  - e. Alteration to allow additional air to be picked up below the opening or the venturi such as altered gasket, base plates and drilling holes in to the carburetor will not be permitted.
  - f. Base plates may not be altered in shape or size.
  - g. Butterflies: Stock butterflies must not be thinned or tapered, idle holes may be drilled in butterflies. Screw ends may be cut even with shafts but screw head must remain standard.
  - h. Accelerator pump discharge nozzle may not be changed.

#### CARBURETOR AND GASKETS:

Spacer must be centered on intake manifold.  
No taper, bevels or any modifications will be permitted.  
A one-piece two-hole paper gasket maximum 0.065 inch thickness that matches the exterior dimensions of the carburetor throttle plate must be installed between the carburetor and spacer.  
A one-piece paper gasket maximum 0.065 inch thickness must be installed spacer and intake

manifold.

Carburetor adapters limited to a 1.125" height.

No funneling devices or devices designed to get more air in to the engine will be permitted.

#### CARBURETOR JETS:

Carburetor jets must be same type as supplied by carburetor manufacturer.

#### FUEL INJECTION:

as produced, electronic fuel injection (including intake manifold) for the car/engine used, required.

No forced induction, ram air induction, turbo or super-charging, nitrous systems, etc. allowed.

#### CARBURTOR AND AIR CLEANER:

Only round type air cleaners with metal top and bottom. Top and bottom must be same size,

No cowl induction systems.

No funneling of air or heat shields.

All air shall be filtered through the filter.

#### AIR INTAKE:

Cowl air induction will not be permitted.

Absolutely no ducts or baffles permitted on or leading to the air

cleaner or element.

Fresh air openings or any type will not be permitted in the hood or cowl area.

#### IGNITION SYSTEM:

OEM ignition components only.

#### STARTER:

Only OEM type production starters permitted and must be in stock location.

#### BATTERY

Battery must be securely mounted.

If mounted in driver's compartment it must be covered.

No battery can be mounted in the fuel cell compartment.

Only one standard automotive battery, not to exceed 16 volts, will be permitted.

Battery box cannot extend below frame.

#### ELECTRICAL SWITCH LOCATION:

All electrical switches must be operable and must be located within reach of the driver except the labeled on-off switch which must be located on the front of the dash panel in the center.

The on-off switch must be wired to the battery cable in a manner that would cut power off to all electrical power to the vehicle.

#### ACCESSORIES:

No onboard computer or other recording devices.  
No traction control devices.  
No lap timing devices or speed sensing devices are permitted.

#### WATER PUMP:

only mechanical water pumps in stock location.

#### FAN.

Stock fans or one electric fan will be permitted on the backside of the radiator only.

#### RADIATOR:

One radiator mounted in the stock location will be permitted.  
Aluminum radiators are allowed.  
The only bracing allowed in front of the radiator is front loop  
All cars will be required to have the overflow of the radiator discharge into a catch can of no less than 1 quart size.  
No anti-freeze permitted.

#### ENGINE EXHAUST SYSTEMS:

Exhaust system must be mounted in such a way to direct spent gases away from cockpit of vehicle and away from areas of possible fuel spillage.  
Headers allowed.  
Exhaust must exit behind the driver's seat on either under the car or right side  
Exit pipe may not stick out of body more than ½'.  
No scavenge lines.  
Exhaust must be boxed with sheet metal if it runs through firewall and above floor pan.  
Effective mufflers required (100 decibel limit).

#### Drive Train

#### DRIVE SHAFT

Must be made of steel and must be painted white.  
Two safety hoops made of steel and a minimum of 2" by ¼" must go around the drive shaft  
The safety hoops should be mounted 6" from the front and rear of the drive shaft.

#### CLUTCH AND FLYWHEEL:

OEM unaltered clutch required.  
Minimum resurfacing allowed (flywheel allowed 1 lb. reduction from stock weight)

OEM manual transmission with all gears, including reverse, required.  
Two 1 ½" inspection holes, on opposite sides of bell housing, required for clutch inspection.  
Stock mounted operating starter required.  
HALF SHAFT-Heavy duty replacement parts allowed.

#### BELL HOUSING:

Safety scatter shields or plated gas pedal area highly recommended.

#### TRANSMISSION:

OEM stock transmission.  
Straight stick or automatic transmissions.  
Automatic transmissions must run torque converter.  
No gutting of torque converter.  
Car must be able to go forward and reverse from a complete stop.  
No removing gears from standard transmissions.

#### REAR AXLE:.

Differential housing must be stock for that make, model and manufacturer, and be unaltered.  
No special order, high performance or non-OEM rear end housings.

#### WHEELS:

All wheels will be 13", 14" or 15" with a maximum width of 7".  
Steel wheels only.  
¼" spacer plates allowed.  
FWD cars backspace 4" required. Any car not meeting this measurement may be assessed a weight penalty in 2017.  
Wheels must be same size per axle.

#### TIRES:

Hoosier 790 will be the specified tire for 2018.  
Teams may substitute DOT stamped tires with a treadwear rating of 300 or greater, a 60 series or taller sidewall, and with a maximum of a 215 section width or narrower.  
Wheels must be the same diameter at all four corners.  
Tires must be the same type at all four corners (all Hoosier 790 or all DOT radials).  
Soaking tires or use of tire treatment, including "armor-all" is prohibited.

#### CHASSIS

##### FRAME REQUIREMENTS:

Complete bumper-to-bumper steel unit-body must be retained..  
From the strut tower forward the inner front may be cut out and replaced with tubing.  
From front strut tower back,  
Firewall must be original unitized frame.

From rear axle back can be cut out and replaced with tubing.

## SUSPENSION:

### RWD-

1. Steel springs that are stock appearing may be used; however, they must fit in stock mounts and location. One spring per wheel assembly.
2. Wedge bolts allowed.
3. Spring buckets may not protrude through stock floor pan.
4. Suspension parts must remain stock as provided for that make and model on both sides of vehicle, except upper A-frames or strut mounts may be altered from stock to adjust camber and caster but not to exceed 6 degrees positive or negative with driver out of car, non-adjustable rear control arms with stock dimensions and stock dimension bushings allowed. Hood may not be altered in any way due to alteration of upper strut mounts. No altering to lower A-frames and strut mounts. A-frames must be equal length right to left side. No sectioning, channeling, altering, plating or chopping allowed. No ball joint spacers. Bushings must be made of pliable material. No heim joints or monoballs allowed.
5. Strut or shock price must not exceed \$100 net, available at all normal retail outlets.
6. Any non-adjustable type shock that fits in stock mounts in stock position allowed. No coil over shocks.
7. On non-strut cars, front upper shock mount may be raised. The extended mount may not exceed 3 inches in height and must remain "on center" and "in line" with original mounts.
8. On leaf spring assemblies, lowering blocks are acceptable provided they do not alter or replace stock mountings.
9. Single piece stock appearing sway bars only. May be adjustable. One bar per car.
10. No suspension travel limiting devices of any kind allowed (bump stops, coil bind, compression/rebound)

### FWD-

1. Any stock appearing steel spring that fits in original mounts in original position allowed.
2. One steel non-adjustable, non-rebuildable, shock/strut in stock location per wheel. Max. \$80 MSRP of strut/shock.
3. Spring adjusters allowed, adjustable spring spacers where shock mounts through spring, screw type where shock mounts outside spring. Coil-over threaded collars allowed on strut type suspensions. Adjustable leaf shackles allowed. Spring buckets may protrude through floor pan.
4. Suspension parts including trailing links must remain of stock type for that make and model and year chassis.
5. Upper A-frames and strut mounts may be altered for camber.
6. Lower A-frames and strut rods must remain stock.

7. One stock front and rear stabilizer bar allowed. Out of cockpit stabilizer adjusters allowed.

8. Stock trailing links required. Home built rear lower control arms of stock length, in the stock location with heim joints allowed.

9. Rear suspension cannot be tied down and must fully rebound.

SPINDLES, WHEEL BEARINGS AND HUBS: Tie rods, spindles, steering and all suspension parts must remain stock and utilize stock mounting positions

#### BRAKES-

##### RWD-

1. Stock rotors, drums and pedals only.
2. Master cylinder in stock location and mountings of pedals may be adjusted subject to approval.
3. Cars must have fully functional brakes on all 4 wheels.
4. Rear brake must be drum style.
5. One hydraulic valve "rear brake adjuster" is allowed but must not be adjustable from driver's seat.

##### FWD-

1. Stock brake units only.
2. Four-wheel brakes required at all times.
3. Stock rear disk brakes allowed.
4. Master cylinder and pedals must remain in stock location.
5. OEM brake rotors required.
6. No "made for racing" components allowed.
7. Brake bias adjusters allowed, must be located outside drivers compartment.
8. OEM anti-lock brakes (ABS) allowed. Wheel fans allowed. No blower motors allowed.

#### Fuel

##### FUEL:

No additives or mixing of fuel allowed.

Fuel when tested must meet track fuel in specific gravity and digitron meter readings. Any measurements outside of the parameter means automatic disqualification.

##### FUEL CELL:

Single fuel cell with foam and vent check valve only. Maximum fuel cell size 8 gallon.

##### FUEL CELL AND FUEL CELL CONTAINER INSTALLATION:

Fuel cell must be contained in a 22 gauge steel (minimum) fuel cell container.

Fuel cell must be securely mounted in the trunk area of the car with at least 4 steel straps, two

inches wide around the cell.

A firewall must be placed between the fuel cell and driver, with holes filled.

Fuel cell height can have no adjustment and a minimum of 10" ground clearance is required at all times.

Fuel cell must be filled by opening rear deck lid.

No outside fill spouts or holes in trunk lid permitted.

Vent check valve required.

#### FUEL LINES:

Fuel lines not permitted inside driver's compartment.

If fuel line runs through the drivers compartment it must be shielded inside a steel conduit.

#### FUEL PUMP:

Mechanical or electrical fuel pumps.

Electrical pumps must be wired through oil pressure switch on the positive side or through the fuel injection control unit.

Fuel pump must shut off when engine is not running with key on.

#### ROLL CAGE:

All cars must have a well-constructed, properly welded and gusseted 6-point full width roll cage made of 1 $\frac{3}{4}$ " .090 wall tubing or equivalent.

Main roll hoop must be behind driver and be reinforced with a full x-bar configuration.

Roll cage must be properly anchored to rocker box or floor with sandwich plates under each upright.

Cage must be reinforced from left to right with bars under the dash, along floorboards, and behind driver in main roll hoop.

At least two bars must extend from main roll cage rearward to frame kick-up or beyond.

A minimum of four equally spaced horizontal bars required in driver's door, three in passenger side door.

Door bars must be connected with a minimum of two equally spaced vertical studs.

Two angular bars must connect bottom door bar to rocker box.

All welds in cage and door structure must be gusseted.

Left side door bar deflector plates of min.1/8" steel required.

Driver's foot protection required.

#### FIRE CONTROL-

Minimum requirement is a 2.5 lb fire extinguisher with metal mounting brackets.

**END OF MIDWEST DASH RULLES**

