

SPORTSMAN RULES

12/10/2020

1) **1 WHEEL BASES AND ELIGIBLE MODELS**

- a. Any 1960 or newer American-made non-convertible passenger car with wheelbase over 108-inches (Ford and Chrysler over 104-inches).
- b. Wheelbase must be within 1-inch of stock.

2) **BODY AND APPEARANCE** Wheelbase must be within 1" of stock. Maximum tread width of 63 ½" for 108" wheelbase cars. In 2018 all cars will meet the 63 ½" track width. The referee is the measuring tool.

- a. All cars must remain stock appearing with complete fenders, quarter panels, doors, roof, hood and trunk lid. **NO ABC Components, Sportsman Style body only.**
- b. Stock steel roof with A, B, & C posts required. Fivestar fiberglass metric Monte Carlo roof allowed in stock location with stock configurations, no cutting of posts. Min roof height 49" @ 10" from top edge of windshield.
- c. Front wheel drive and truck body styles must be pre-approved by management (Lumina-Taurus-Avenger, etc).
- d. Stock steel or professionally built aluminum bodies required.
- e. Bodies cannot be shortened, chopped or channeled, light moldings and stock appearing metal grill required. All doors must be welded shut.
- f. Stock hood with reinforcements removed or fiberglass hood required. Hood latch must be removed.
- g. No multi-plane spoilers. Maximum spoiler length 5". Maximum spoiler width 60". Spoiler must be centered on rear tail section. No wings or skirts allowed.
- h. No air scoops or holes in hood allowed. Filler panels painted with reflective colors required.
- i. Front and rear bumpers must appear stock. Bumper ends must be capped or connect to body. Sunroofs must be closed in with Lexan or Metal.
- j. Body must be within 2" from outside of tires.
- k. Bodies not conforming to above rules may be subject to a substantial weight penalty.
- l. Rooflines must have stock appearance.(chopped roofs may result in additional weight penalty)
- m. No dishing, panning or altering of rear deck, fenders, quarter fenders etc...Rear deck must remain flat at all times.
- n. Maximum rear deck height will be 36 ½". Measured at center of spoiler base on tail section.
- o. AR Bodies: Street Stock bodies must meet all AR templates.

3) **WINDSHIELDS AND GLASS**

- a. Stock or Lexan windshields required, all other windows (if used) must be of Lexan.
- b. Side windows not allowed.

4) **ENGINE LOCATION**

- a. Chevy engines must be located so that the furthest forward spark plug is in line with or ahead of the upper ball joint's centerline. In 2018 engine setback may be measured from spindle centerline. All other engines allowed a 2-inch set back. Minimum crankshaft centerline height 10.5" (front and back). Maximum offset (right-left) 3".

5) **ORIGIN**

- a. Engine must be of same manufacturer as chassis and body.

6) **ENGINE DISPLACEMENT**

- a. Maximum displacement 362cid (Chrysler products 368cid).

7) **ENGINE BLOCK**

- a. No aluminum blocks
- b. A minimum of zero deck height required.

8) **ENGINE PISTONS / RODS**

- a. Flat top pistons required.

- b. Magnetic steel connecting rods only. Rod journal minimum diameter 1.900"
- 9) **OIL PANS/OIL SYSTEMS**
 - a. A 3/4"NPT inspection hole in oil pan required. Inspection hole must be located in line with second or third rod journal of crankshaft, on either side of pan and above sump area (oil level). Hole in windage tray in line with inspection hole required.
- 10) **CRANKSHAFT**
 - a. Production type steel crankshaft with normal configuration counter weights required.
- 11) **CYLINDER HEADS**
 - a. Stock or stock replacement cast iron unaltered heads (no porting, polishing, acid dipping, or gasket matching allowed) required. No aluminum heads allowed.
 - b. The only stock replacement heads allowed are World Products SR 1052 #4266B and #4267B. All other heads must have Great Northern Sportsman approval.
 - c. Minimum combustion chamber 62cc, maximum 2.02-inch intake and 1.6-inch exhaust valves required.
 - d. Maximum of two valves per cylinder.
 - e. **No Bowtie, Vortec or 18-degree heads allowed on GM products.**
 - f. Valve spring retainers are the only titanium parts allowed.
- 12) **INTAKE MANIFOLD**
 - a. Completely stock passenger car 2-bbl. cast iron intake and exhaust manifolds required.
 - b. **Edelbrock Performer #2101 or Edelbrock Performer RPM #7101 allowed with no penalty.**
 - c. No grinding, polishing or altering allowed.
 - d. No Bow-Tie manifolds.
 - e. Internal heat riser crossover must remain in place.
- 13) **CAMSHAFT / VALVE LIFTERS AND ROCKER ARMS**
 - a. Hydraulic cam/lifters only. ***Must pass leak test of minimum of one hundred thousandths.***
 - b. Maximum lift at valve: GM-.490 inch, Ford/Mopar-.520 inch. Measured at the push rod.
 - c. Roller tip rocker arms allowed, but must retain original pivot type (ball & socket).
 - d. No solid lifter or roller cams allowed.
- 14) **COMPRESSION**
 - a. Maximum 10.8 to one compression ratio.
- 15) **EXHAUST**
 - a. Center dump and log style manifolds allowed.
 - b. Max exhaust manifold inside diameter 2-inches.
 - c. No cast iron header style exhaust manifolds allowed.
 - d. **Economy headers allowed.**
 - e. Maximum diameter 2 1/2" before collector and/or muffler, 4 1/2" maximum diameter behind muffler.
 - f. Exhaust must exit beneath car and behind driver, pointing downward. Effective mufflers required. Exhaust out the door may result in additional weight penalty.
- 16) **CARBURETOR**
 - a. Stock unaltered 500 CFM Stock Holley 4412 2 bbl. or 1.375" Rochester allowed on all cars.
 - b. No alterations except removal of choke "Butterfly" allowed.
 - c. Double return springs required.
 - d. Carburetor Rework Guidelines:
 - A. Body of Carbs:
 - 1. No polishing, grinding, or drilling of holes allowed.
 - 2. Gasket surfaces may be machined for improved sealing.
 - B. The choke may be removed, but all screw holes must be permanently sealed.
 - C. Choke horn may not be removed.
 - D. Boosters may not be changed. Height, size, and shape must remain standard and unaltered.

- E. Venturi area must not be altered in any manner. Casting ring must not be removed.
 - F. Base plate must 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 heads must remain standard.
 - e. Throttle Shafts: Shafts must remain standard and must not be thinned or cut in any manner.
 - f. Any attempt to pull outside air other than straight down through the venturi is not permitted.
 - g. Jets may be changed. No dial-a-jet devices.
 - h. No addition of any material, such as epoxy, may be added to carb or parts except to seal vacated external screw holes.
- 17) **CARB SPACERS, GASKETS, MOUNTING**
- a. Carb Adaptor: 1.5" max thick w/gaskets. Bore diameter must be straight full thickness of spacer (not tapered, angled beveled, grooved or bowled). Original orientation required. No part of adaptor may protrude into plenum of Intake Manifold. Adaptors are one piece only. **All cars will be required to meet this rule, regardless of hometrack rules.**
- 18) **AIR INTAKE**
- a. Air cleaner required to act as flame arrestor. No air induction boxes, **x-stream top plate** or ram air units.
- 19) **FUEL SYSTEMS**
- a. OEM type, mechanical fuel pump, in original location, required.
 - b. Steel fuel lines located outside driver's compartment required.
 - c. Remote fuel filter allowed.

CCMP
CONCEPT CRATE MOTOR PROGRAM

Approved CCMP models are:

GM 602 CCMP motor will be allowed one Holley 4 bbl 650 cfm carburetor #80541-1 (with no modifications) with. One .065 paper gasket allowed. Weight may be adjusted for fair competition. The CCMP will use the Holley 4 bbl. 650 cfm carburetor with GM Stock 15.5lbs. flywheel and 1.625" headers. Maximum cost of headers is not to exceed \$250.00. No stepped, 180 degree or Tri-Y headers. **MSD Soft Touch Rev Control Part #018-8728 with a maximum 6400 chip required. Box must be mounted out of reach of driver.**

Base Weight: 3,000 pounds.

All crate engines may not be altered from factory specs. Any evidence of tampering with engine components will result in disqualification, confiscation, fine, and suspension for balance of season.

Tech staff reserves the right to impound motors for inspection or dyno testing. Factory Seals may be removed for tech purposes, those engines will not be required to be recertified, allowing for more in-depth technical inspection throughout the season.

No refreshing, buy new instead. Repairs allowed with prior management approval.

- 20) **ELECTRICAL**
- a. Stock type (HEI) ignition components only. Any coil permitted. Firing order may not be altered. No MSD boxes, dual-point distributors computer controlled or crank fired ignitions not allowed. Batteries must be securely mounted ahead of rear axle and away from fuel container and lines. All batteries in driving compartment must be in an approved sealed battery box. Maximum 12 volt system.
 - b. Rev chip may rule may be added for 2021 for **all** motors.
- 21) **COOLING SYSTEM**
- a. Any metal radiator that does not alter the exterior appearance of car allowed. Fan protection (20 gauge minimum thickness) required. Overflow tank located under hood required.
 - b. **NO ANTI - FREEZE ALLOWED AT ANYTIME.**

22) **CLUTCH, PRESSURE PLATE AND FLYWHEEL**

- a. Manual transmissions must utilize stock all steel type pressure plate and steel or cast iron flywheel (min 15.5 lbs.). Clutch disc must be minimum of 10" diameter with stock full fiber disc.

23) **TRANSMISSION / TRANSAXLE**

- a. Stock automatic transmission with operating 11-inch minimum diameter torque converter.
- b. Torque converter post-race inspection will occasionally be required.
 - A. Option 1; install drain plug in torque converter.
 - B. Option 2; remove torque converter for detailed inspection.
- c. All forward and reverse gears must operate.
- d. Transmission overflow bottle required. No rubber transmission lines.
- e. Transmission cooler not allowed in driver compartment.
- f. A manual stock OEM transmission will be permitted.
- g. All gears must be operable.
- h. No 5-speed transmissions.
- i. No straight cut gears or gun-drilled main shafts, no lightening of gears on main shaft.

24) **DIFFERENTIAL**

- a. Rear end must be stock for that make car.
- b. Ford 9" allowed, unlocked or locked by welding or spool only.
- c. If using 9" ford rear-end, upper control arm mounts on frame may be raised max. 1".
- d. Disc brakes allowed on floater rear ends only.
- e. All cars will be allowed to use a floater type rear end and disc brakes without penalty.

25) **DRIVELINE**

- a. Minimum diameter 2.5" steel driveshaft required.
- b. Driveshaft must be painted a bright reflective color.
- c. Safety hoop required on front half of driveshaft. Driver must be protected from driveshaft entering into driving compartment.

26) **BRAKES AND PEDAL ASSEMBLY**

- a. Stock brake units only.
- b. Four-wheel brakes required at all times.
- c. Master cylinder and pedals must remain in stock location.
- d. No "made for racing" components allowed.
- e. Mechanical (Hub mounted) wheel fans will be allowed on front brakes. No electric fans or blower devices will be allowed.
- f. Drilled rotors not allowed (except stock replacement).
- g. One brake proportioning valve allowed.
- h. Rear drum brakes allowed.
- i. Brakes may be ducted with tubing from front valance pointed at calipers.

27) **FRAMES AND UNIBODY**

- a. GM chassis must retain original wheelbase. Ford/Chrysler may use GM Metric frame.
- b. 2 Complete stock steel frame or unit-body must be retained to a point 6" behind center of rear axle. Replacement with square tubing allowed rear of that point.
- c. Front stub and rest of frame must match.
- d. Steel firewall and floorpan required.
- e. Passenger side interior can be tinned over from top of driveshaft tunnel to passenger side door bars.
- f. Minimum frame height 4.75".

- 28) **MID SIZE GM METRIC CHASSIS**-Lower right A-frame may be 1" longer than stock. Coleman steel hubs or full size GM spindles allowed. Steering center link modifications (to improve bump-steer) allowed. Any stock production rear end allowed, provided that lower control arm/shock mount locations remain in the stock position for the metric chassis. Rear end may not exceed 58 inches in width from axle flange to axle flange. Aftermarket or S-10 axle required on right side of metric rear ends.

29) **ROLL BARS / CAGE**

- a. Driver assumes responsibility for roll bar installation and workmanship.
- b. Roll bars must be padded for protection of driver. Recommended is high-density roll bar padding.
- c. All cars must have a well constructed, properly welded and gusseted 4 or 6 point roll cage made of minimum 1.75" .090 wall tubing or equivalent.
- d. Roll cage must have four uprights properly welded to frame.
- e. Right side of roll cage may not be located inboard more than right rails of front and rear stubs.
- f. Main roll hoop must be behind driver and be reinforced with a full x-bar configuration. Cage must be reinforced from left to right with bars under the dash, along floorboards, and behind driver in main roll hoop.
- g. 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.
- h. Door bars must be connected with a minimum of two equally spaced vertical studs. Two angular bars must connect bottom door bar to frame rail.
- i. All welds in cage and door structure must be gusseted.
- j. Driver's foot protection bar required. Left side door bar deflector plates of at least .125" steel required.
- k. Front hoop must connect to front roll cage uprights.
- l. Uni-body roll cage construction contact competition director for guidelines.

30) **SUSPENSION**

- a. Any stock appearing steel spring that fits in original mount in original position allowed. One conventional single coil spring rubber per spring allowed. Minimum dimension 5"x8 1/2". No trick or progressive rate springs.
- b. One steel non-adjustable, non-rebuildable shock, with a welded bearing with a maximum MSRP \$85, per wheel. No heim joint shocks allowed. Rebuildable shocks not allowed in 2019.
- c. QA1 51 Series shocks twin tube rebuildable allowed- add 100 lbs. QA1 26 Series shocks mono tube rebuildable allowed- add 100 lbs. AFCO 2400 Series shocks allowed- add 100 lbs.
- d. Screw Jacks, spring adjusters, adjustable spring spacer units where shock mounts through spring (front), screw type (wedge bolt) where shock mounts outside spring (rear) allowed.
- e. Spring buckets may protrude through floor pan.
- f. All other components must remain stock and in stock location, except where otherwise stated.
- g. Lower A-frames may have bushings replaced with steel insert type.
- h. Rear Control link rubber bushings may be replaced with **approved** non-metallic **unaltered** stock replacement parts.
- i. Tubular upper A-frames allowed, may relocate upper frame mount.
- j. No monoball, heim joints or clevis' permitted on suspension components.
- k. Aftermarket one-piece hollow sway bar allowed. No spline type sway bars. Frame mounted sway bar adjusters allowed. Maximum diameter 1 1/4".
- l. 1" shock extenders in front and 2" in rear allowed.
- m. No lift bars, rear sway bar or traction devices.
- n. Non-adjustable rear control arms with stock dimensions and **approved unaltered** stock style bushings allowed.
- o. No bump stops/rubbers, compression/rebound limiting or coil bind/ coil spring devices allowed. No travel limiting devices such as chains, bolts, straps etc...

31) **SPINDLES AND HUB**

- a. Stock unaltered spindles, hubs, and steering components required.
- b. Coleman steel hubs allowed.
- c. No lowered spindles.

- d. Heim joints allowed on outer tie rod ends.
- 32) **STEERING**
- a. Fabricated steering column must incorporate 2 U-joints.
- 33) **GROUND CLEARANCE**
- a. Minimum ground clearance 4.75" with driver in car, at any point including spoilers, scoops, and mufflers, except front crossmember, which is 2.75".
- 34) **WHEELS**
- a. Minimum wheel weight of 19.0 lb. - IMCA "sticker" legal.
 - b. Acceptable only are steel wheels with a maximum inside width of 8" measured bead to bead.
 - c. Black wheels MUST BE painted white, silver or yellow on complete backside.
 - d. Bleeder valves are not allowed.
- 35) **TIRES**
- a. Only approved tire by Tomah-Sparta Speedway are allowed for competition. (Hoosier D800 in 2020)
 - b. No devices or material for disseminating softening materials or compounds changing composition or character of tire allowed any time. Failure to comply will result in disqualification, loss of season to date points and suspension.
 - c. Undocumented, unauthorized or unmarked tires will result in immediate disqualification, loss of all points and purse earned.
- 36) **WEIGHT**
- a. **ALL WEIGHTS INCLUDE DRIVER**
 - b. Minimum total weight is 3100 lbs.
 - c. 52% front axle, and 42% right side.
 - d. All weights must be properly anchored to frame rail outside driver's compartment. Weights must not be lower than bottom of frame rail.
 - e. Ballast must be painted white and lettered with car number.
 - f. Management reserves the right to alter, change or adjust weight limits at their option and add additional weight to non-conforming cars.
 - g. Edelbrock Performer #2101 or Edelbrock Performer RPM #7101 allowed with no penalty
 - h. All weight measurements, including minimums, will be made with the driver sitting in the driver's seat, with steering wheel in place, hands on steering wheel and helmet on driver's head.
 - i. All "added" weight must be mounted to FRAME.
 - j. Minimum weight units - 5 lb.
 - k. All ballast weight will be painted white and numbered to car. \$25 fine for each piece that fails to comply.
 - l. Any loss of weight from any car for any reason, will result in a cash fine.
 - m. Ballast weight must meet 10" ground clearance behind rear axle.
 - n. Weight determined by the official Host Speedway scales only.
- 37) **FUEL REQUIREMENTS**
- a. Fuel cells must be separated from the driver's compartment by a full, complete metal firewall.
 - b. Fuel cells must be securely mounted between the frame rails and behind the rear end. Fuel cell must be adequately protected from behind and below by a triangularly braced fuel tank guard. Minimum of two (2) 1 1/2" x 1/8" straps under and over fuel cell.
 - c. Cell must be protected with 1/8" steel plates on rear, left and right sides.
 - d. "Vent tube" must exit out the rear of the car.
 - e. Fuel tank must be minimum spec. tank of an outside 18 gauge steel canister, liner of plastic, or suitable rubber, sponge baffles, and boltable filler plate assembly with operable check valves.
 - f. Maximum capacity of fuel tank: 22 gallon.
 - g. 10" minimum on all GNSS cars from the ground.

- h. No electric fuel pumps.
- i. Regularly available pump gas or Racing Gasoline only as a fuel, no fuel additives allowed. no-E85 fuel allowed- fuel must meet properties of track pump fuel.
- j. Fuel samples may taken at anytime and tested (digitron, specific gravity, germaine drop testing, water testing,and any other testing methods deemed necessary) Alcohol,nitro methane nitro, propane, nitrous oxide, other oxygenating agents, other additives and/ or fuels that contain masking agents or oxygen are not permitted. USE OF SUCH SUBSTANCE OR ADDITIVE WILL RESULT IN IMMEDIATE DISQUALIFICATION.

Competition Tire rule:

- 1. A race team may register only 1 new tire per race event.

Penalties:

- 1. 2 new tires- competitor can qualify no better than 13. Must start at the rear of the heat. May transfer from the heat to the feature.
- 2. 3 or 4 new tires- Can qualify no better than 13. Must start at the rear of Heat and Last Chance race. Can only qualify for feature from the Last Chance race. Start at rear of feature if qualified for transfer position.

38) All weights subject to additional penalties.

	GNSS	LaCrosse	Elko	Grundy/Illiana	WIR
Base Weight	3100	3100	3050	3050	3100
602 crate	deduct 100	deduct 100	deduct 100	deduct 100	deduct 100
QA1 51,					
QA126	Add 100	Add 100	Add 100	Add 100	Add 100
Afco 2400	Add 100	Add 100	Add 100	Add 100	Add 100

39) Mid-American Stock Cars Series:

- 1. Cars will be eligible to compete in 2021.
- 2. Mid-Am cars must use Tomah-Sparta Speedway tire,
- 3. Holley 4412 carburetor
- 4. Weigh 3100 lbs.

END OF SPORTSMAN RULE SECTION