

Slinger Speedway Auto Racing, Inc.

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2020 Late Model Rules (limited late model)

CHASSIS, ENGINE & BODY

WHEELBASE & TREAD WIDTH

Minimum wheelbase 104", plus/minus 1 inch. Maximum tread width 65", measured center to center of tires at spindle height (front and rear).

CHASSIS

Tube or stock stub allowed. Frame rails must be a minimum of 2-inch by 3-inch .125 wall tubing.

ROLL CAGE

All roll cage tubing must be at least 1.75" x .090" wall.

Welded gussets required on all joints.

At least four evenly spaced horizontal bars required on left, and three on right side. X-configuration on right side, counts as one bar.

All door bars must be mounted to the frame rails and the main roll cage uprights. Door bars must be connected with a minimum of two equally spaced vertical tubes.

Left side door bar deflector plates of at least .125" steel required. Diagonal bar in top hoop required. Floor pan under driver must be heavy-gauge steel.

SUSPENSION

Conventionally mounted 5-inch springs or coil over type suspensions. ***Spring must be magnetic steel with maximum retail price of \$100. 5" Diam. springs must have minimum free height of 8 1/2". All coil over type springs must have a minimum free height of 12" .***

Approved Non-Adjustable Shocks (***Maximum retail price of \$200***) series; Afco 13T, R, S, 21, ARS 2000, Bilstein SZ, SN, Carrera 65, 67, 9100 Genesis GSO, Integra 431, Pro A, AC, TA, PG, QA1 Series 16, 21, 50, 62, 67. Manufacturers components must be used, valving optional.

For the 2021 season, this list of approved shocks will be

reduced after Slinger officials review the models being utilized. Post Race shock disassembly is the responsibility of the Car Owner/Crew Chief. Bring Tools or make arrangements. Shock must have minimum 2" compression and rebound in mounted position.

NO Bump-Stops/Rubbers, Compression/*Rebound*-limiting or Coil-Bind set-ups. The test for coil binding or coil bound springs will be as follows. The front tires will be located on 1 1/2" high pads and the front frame will be compressed. The front nose must freely touch the ground level. All nose components must be solid mounted. Other inspection methods may be utilized by the inspection officials to determine if a car is coil binding. Slinger officials will make the final determination as to complying with the no coil binding rule. One shock/spring per wheel. One (1) conventional (single coil), spring rubber per spring allowed. Rear suspension must be solidly mounted (no rubber bushings). Heim Joints only. Trailing arms mounted behind the driver must have 1/8" min protection plate and may be boxed.

No Coilover eliminators or sliders allowed. No lift bar, fifth coil or other spring-loaded/ hydraulic suspension device allowed. No rear stabilizer bars.

SPINDLES & HUBS

Any steel spindle allowed. Aluminum steering-arm and ball-joint mounts allowed. Aftermarket hubs with 5/8" wheel studs required, maximum retail price \$250. No gun-drilled studs permitted. Wide five hubs and spindles allowed with **no** weight penalty. Light weight hubs will not be allowed.

STEERING

Rack & Pinion or steering box with center link style required. No electric power steering units.

Quick release steering wheel hub required. Collapsible steering shaft recommended.

REAR END

Stock or rear spur gear type quick change units with steel tubes, No mini type quick change minimum 10" diameter ring gear. Maximum camber is not to exceed 1/2 degree. -For the 2020 season, only full spool or lockers(ratchet style)

with a price cap of \$700 will be permitted. One-piece straight spline drive plates only. Drain plugs must be safety wired. Magnetic steel axles only, gun drilled axles allowed. 25lb weight break for spool and solid axle. Solid axles must be a minimum of 1.1250" o.d. No wrap up style traction axles permitted. Gun drilled axles must have the same i.d and o.d. on both axles. Crowned axles not permitted

BRAKES

Four wheel brakes required at all times. Single or dual piston (steel or aluminum) calipers.

Four (4) piston calipers allowed. Maximum retail price \$190. 30 lb weight brake for single piston calipers. Dual piston caliber 15lb weight break MSRP \$190. No thermal lock pistons allowed.

Rigid mounted rotors, maximum diameter 12¼" rotors, no drilling permitted. No floating calipers or rotors, no self centering rotors, ABS units or brake recirculation systems. Only one brake bias adjusting unit per car. No electronic brake components or recirculating devices permitted. The Coleman brake switch is permitted. **No electric blower motor devices. Wheel fans allowed.**

ENGINE LOCATION

GM engines must be located so that the center of the furthest forward spark plug hole is no more than 2" behind the front axle centerline. LS engine setback is 3 1/2 inches from centerline of spindle. Ford and Chrysler allowed 4" engine set back. **302 Ford allowed 4" engine set back.** *Ford/Mopar based engines may have weight adjusted in the spirit of competition.* The referee will be used to determine the center of the axle center line (center of spindle).

Crankshaft centerline 10" minimum ground clearance.

ENGINES

Limited Concept Engine – Two valves per cylinder. No aluminum blocks or heads. GM & Ford - 362 CID maximum, Chrysler - 373 CID maximum. All engines must meet the following specifications regardless of manufacturer:

REMINDER - Stock or stock replacement cast iron unaltered heads with factory valve angles (no angle milling, porting,

polishing, acid dipping allowed). Dart Iron Eagle Head 180 23" part numbers: 10110010 THRU 10220010; GM Bowtie numbers 14011058, 10134392,(casting number 14011034 and 12480034), World Products Sportsman II numbers 011150, 011250 allowed. Ford 351N and 352N heads, World Products Windsor Sr. 053040 allowed. Chrysler 5249769, 4529446, **LA-X** heads. AFR aluminum heads model EVO-SS #1096 permitted. This head must maintain all original as manufacturer's specifications. No alterations of any manner permitted. All competitors must pre-register the AFR heads with Slinger Speedway tech officials. Casting numbers must be visible on all heads. Gasket matching not permitted. Minimum combustion chamber 62cc, maximum 2.02-inch intake and 1.6-inch exhaust valves required. Flat top pistons required. A minimum of zero deck height required. 10.8 to one maximum compression ratio. Connecting rods must be magnetic steel. Rod journal minimum diameter 1.900". Oil pan minimum depth 6.5". 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. Valve spring retainers are the only titanium parts allowed. No radius edge lifters. Lifters must be able to rotate in their bores. No roller or mushroom cam/lifters. Maximum valve lift - .600" (measured at retainer). **Only 3/8", 5/16" or 11/32" valve stem diameter allowed.** OEM style rocker arm mounting required. Firing order may not be altered. Ignition system may not be computerized, programmable or have memory circuits. No magnetos, crank trigger, multiple coil or programmable ignition systems allowed. Production type steel crankshaft with normal configuration counter weights. No drysump or vacuum systems of any kind allowed. External single stage oil pump allowed on Ford engines. OEM type, mechanical fuel pump, in original location, required. Chrysler engines add 20 lbs. for CID over 362.

Intake Manifold: Edelbrock Victor Jr. 2975 (GM), 2915, 2920 (Chrysler), 2921, 2980, 2981 (Ford). Plenum and port

configuration must remain as-produced. No porting modifications, including gasket matching. No spacer/Adaptor plates to head. If Bee-Hive valve springs are used, the competitor will be required to switch to conventional style valve springs for post race tech purposes.

GM Crate Engine

Part number 88958604 or 19318604, must be used as produced. Maximum 2" set back.

Ignition: MSD with INTEGRAL Rev-control required.

Mounting on right side of dash required. RPM limit 6400.

Carburetor: Holley 650-HP P/N 80541-1 required. No modifications allowed. 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. Factory/Certification Seals may be removed by Officials for tech purposes, Tech staff reserves the right to impound motors for inspection or dyno testing.

GM Crate engines with any or all of the following updates

or any rebuilt crate engine will weigh **2825** lbs. Specific updates are; 1.6 rocker arms, Small magnetic steel Harmonic Balancer, Carb Spacer Maximum compression can never be greater than 9.6:1 Rebuilt crate engines must be done by a Slinger Speedway approved certified rebuilders. Discussion is being reviewed by Slinger officials about not allowing any rebuilt crate engines in the 2021 season.

WEGNER LS 5.3 Spec Engine - See Slinger Speedway tech officials for specs - 7400 rpm limit uses the standard minimum weight.

Carburetor: The NEW Ultra HP Carburetor is NOT LEGAL.

Holley 4412-2 bbl. Holley 4412 Carburetor Rework

Guidelines:

Body of Carbs: No polishing, coating, grinding, or drilling of holes allowed. Gasket surfaces may be machined for improved sealing. The choke may be removed, but all screw holes must be permanently sealed. Choke horn may not be removed. Boosters may not be changed including no

additional holes. Height, size, and shape must remain standard and unaltered. Venturi area must not be altered. Casting ring must not be removed. Base plate must not be altered in shape or size. Butterflies: Must not be thinned or tapered. Screw ends may be cut even with shafts, but screw heads must remain standard.

Throttle Shafts: Shafts must remain standard and must not be thinned or cut in any manner.

Metering block may be plugged, no additional holes allowed, must remain stock appearing for carb style, no aftermarket blocks permitted. Carburetor metering block must be stock or HP style only. No aftermarket metering blocks permitted. Only three(3) open emulsion holes per side permitted. Any additional emulsion holes must be plugged and non-functional. Any attempt to pull outside air other than straight down through the venturi is not permitted. Jets may be changed. No dial-a-jet devices. No addition of any material, such as epoxy, may be added to carb or parts except to seal vacated external screw holes. Epoxy allowed on boosters of 4412-2 bbl. at main body only. Carb Adaptor: 1-5/8" max thick w/gaskets. Original orientation required. No part of adaptor may protrude into plenum of Intake Manifold.

Adaptors are one piece only.

RETURN SPRINGS & AIR CLEANER

Double return springs required. Air boxes allowed with cowl inlet only.

IGNITION SYSTEM

12 volt systems only. All rev limiting controls must be integral and built into the msd box. No external separate limiters.

EXHAUST

Headers allowed on all engines (max retail price \$650). Tri-Y not allowed, no Merge- Collectors. Exhaust must exit behind driver. Exhaust exiting under rear of car is preferred, side door exit will be allowed **MUST MEET 95-decibels maximum no exceptions.** NO custom, one of a kind or homemade headers.

CLUTCH, TRANSMISSION & DRIVESHAFT

Stock type transmission with operating reverse gear required. No internal clutch (Brinn, Bert, Falcon or Racegator type) transmissions allowed. No straight cut gears. Counter gear must be driven by input shaft.

Made-for-racing clutch required. Two disk 5 ½" minimum. Carbon and titanium clutch not permitted. Steel or Aluminum driveshaft minimum diameter 2½". Safety hoop required on front half of driveshaft.

Driveshaft must be painted a bright reflective color.

RADIATOR/COOLING

Metal radiator mounted in front of engine, between frame horns.

Fan protection and overflow tank located in engine compartment required.

Water pump must be stock type in stock location.

Antifreeze is not allowed.

FUEL & FUEL CELL

Fuel cell complete with 1/8" steel can, interior bladder, foam baffle and rollover valve required. No deflector plates. Fuel cell must be mounted behind rear axle, between frame rails. Over-Tail chassis – maximum 15 gallon capacity (25"x18"x10") and must have ASA bar.

Bottom of fuel cell must be at least 10 inches from the ground. Filler must be accessed through deck lid. Filler spout may be extended, but not connected to bodywork.

Must have -6 (3/8) roll over vent valve installed or tech approved alternative. Aeroquip or equivalent gas line required. Routing must be outside of cockpit and protected from damage. No weights permitted to be mounted to fuel cell framework, fuel cell protection bars or ASA bar.

Approved pump fuel only. No oxygen bearing or performance enhancing additives may be introduced into the inductions or fuel supply, either at the fuel cell or upstream in the system.

Violations will result in immediate disqualification from the event; forfeiture of owner and

driver points, and monies/contingencies earned for the

event. Fuel samples may be taken at any time 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 SUBSTANCES OR ADDITIVES WILL RESULT IN IMMEDIATE DISQUALIFICATION.

BODY & APPEARANCE:

Five Star, ARP or equivalent template short track late model body only, **subject to Slinger tech inspection approval.**

ABC Referee will be used as the inspection process as per the inspection procedure in the ABC program.

Five Star 2019 Gen 6 body is not permitted.

All body dimensions are measured with driver seated in car in as raced position. Minimum roof height 47".

Spoiler: Single plane, 5" (measured from deck plane) x 60" (measured across rear) max. Deck height 34.5" max.

Minimum ground clearance including nose and rocker panel is 4". Cars will be measured for min. nose/rocker heights pre and post race. Cars will be given 2 minutes after reaching the tech area to return and rebound to the 4" min. height.

All windows must be of Lexan. 12" max vent (wing) window.

No venting cockpit air allowed. 2 - 3" maximum diameter hoses and ducts allowed for driver cooling.

Weight penalties may be assessed for bodies not conforming to Five Star guidelines, dimensions, and/or templates.

Allowed max radiator panning for nose and radiator is 29 inches . With the driver seated in the car , there is no minimum frame height.

A maximum nose height at the time of inspection is being reviewed for all bodies.

A one piece centerline template is being reviewed and tested for use on the ABC First generation (2004-current) body.

WEIGHT

Limited Concept Engine with 7400 rpm limit - 2800 lbs.

Chrysler over 362 - 2850 lbs.

GM Crate Engine with 6400 RPM Rev-control - 2775 lbs.

GM Crate Engine with updates and 6400 RPM Rev-control – 2800 lbs.

Wegner 5.3 Spec Engine with spec 2 barrel carb 7400rpm – 2850 lbs*

LaCrosse 9 to 1 iron intake & exhaust, conventional springs, GM brakes – 2825 lbs. (LaCrosse shock rule applies)

EVO-SS AFR spec head 2850 lbs.7400 rpm

Deduct 30lbs for single piston brake calipers.

* must have 40lb on block - 20lb each side must be Wegner spec parts - must be safety wired

Gas allowance for Heats and Features ½ pound per lap.

Front axle Minimum 49% and right side 42% apply at all

times. All weights include driver in seat. Ballast must be

painted white and lettered with car number.Fuel burn off

deduction will be 1/2 lb per lap of advertised race distance.

No fuel burn off deduction will be allowed for qualifying.

WHEELS & TIRES

Aftermarket made for racing, steel wheels required. 15" x 8" maximum.No bleeders permitted.

Minimum wheel weight 14 pounds.

Hoosier D800 – One new tire per night allowed. Three used tires must be marked and approved by Slinger Speedway

Tech Officials. ALL RACE TEAMS must fill out a Slinger Speedway Tire Card and have it handed in at tech before the

car qualifies. All four tire serial numbers must be legibly

written on the card, those tires must be used for qualifying,

and all races, heat and features in said race program unless

noted otherwise.Cars not using their marked qualify tires will be immediatly disqualified from that event unless the change

was approved by Slinger tech officials.

Tire Chemical treatment of tires (softening) not permitted.

TOW HOOKS: Tow hooks on front and rear required.

BATTERY: 12-volt systems max. Batteries must be securely mounted ahead of rear axle, away from fuel cell and lines.

Batteries in driving compartment must be in approved

sealed battery box. Battery (negative post) disconnect

switch recommended. **NO Voltphreaks Batteries**

ELECTRONICS:

Spotter required in the spotter stand at all time when car is in competition. Spotter must monitor track raceciever channel #1565 Race team radio frequencies must be registered with the Slinger track officials.

Video recording from car, limited to 1 track viewing camera only. Data recording/acquisition not permitted.

MODEL AMB Trans x260 Transponder Required at all time when car is on the racetrack.

Mounting Location--**Late Model**

Transponder must be mounted on the left frame rail, in a vertical position no more than 8" and no less than 6" ahead of axle tube center line.

SAFETY - SEATS

Approved aluminum driver's seat required.

Seat must be fastened to frame/roll cage and located to give adequate distance from driver's arm to door bars.

Shoulder supports on right and left sides of seat and head support on right are required. Full containment seats recommended.

SAFETY - BELTS

Minimum 2 or 3-inch wide lap belt, 3-inch wide shoulder harness and submarine (crotch) strap required. All restraint systems must be SFI approved. Belts must be anchored to roll cage or frame in accordance with manufacturers installation instructions. Grade "5" bolts and hardware or stronger required. Shoulder harness must not be anchored lower than 2-inches below drivers shoulder height. Belts must be no more than three years old per manufacture date. 6-point belts (double crotch strap) are recommended.

SAFETY - DRIVING COMPARTMENT

Cockpit must be completely sealed off from engine compartment and fuel cell. Padding required around driver including steering post. Securely mounted fully charged fire extinguisher with visible dial type gauge required.

Ribbon or mesh type window net with belt buckle release required. Buckle located at top/front recommended.

Clearly labeled push-pull or toggle type kill switch accessible

from either side of car required.

No suspension components including stabilizer bar can be adjustable from the driving compartment.

Ignition box must be mounted right side of dash or cockpit for easy access for officials. 6 pin connector highly recommended. One ignition box only.

SAFETY - DRIVER'S ATTIRE

Complete approved fire retardant driving suit and gloves required.

Eye protection and a Snell SA-2010 , SA-2015 helmet or newer required.SFI-38.1 Head and Neck restraints, fireproof shoes, and fire systems recommended.

APPEARANCE

A professional appearing paint job in an attractive color required. All lettering must be professional and in good taste. Numbers: 18-inches on both doors, and roof, readable from the right side. 1" square rub rails allowed, mounting must be within 3" of ends & ends must be tapered and capped.

FLAGMAN AND JUDGES (OFFICIALS):

SLINGER OFFICIALS have FULL AND FINAL decision on all races. ALL rules are subject to change by track officials or promoter. If a car/driver is disqualified, the remaining cars will be moved up in finishing positions. Track Officials will review all decisions and reserves the right to amend the finish in the event of an error.Driver must be on the championship point standings as published by Slinger Super Speedway.

All cars are subject to inspection by track officials at any time whether safe or unsafe to complete. Promoter will make final decision whether legal or illegal. If a car fails postqualifying inspection, the car will start is the back of the slowest race.

All illegal parts will be confiscated by Slinger Super Speedway and will be destroyed

(see example) * by Slinger Super Speedway.

*** Illegal car parts, complete car will be confiscated.**

*** Comp/CI complete engine assembly will be confiscated.**

*** Any cylinder head component, complete cylinder head will be confiscated and not returned.**

Any driver entering or driving in the pit area unreasonably will NOT be paid that night. Any unjustified action on or off the track will result in suspension from the track or pit area and loss of pay.

To be eligible for special event awards and/or any contingency awards you must be a Slinger Speedway member and meet all specified requirements. All drivers must compete in 80% of weekly shows and purchase a Slinger Speedway membership to be eligible for our annual point fund and contingencies. Slinger Speedway members will pay a reduced pit pass fee.

Provisional Option: One Feature provisional/per driver/per season is allowed. The driver **must be a Slinger Speedway member** and competed in at least 80% of the races to date with the highest in the current Slinger Speedway point standings having the first option. For the first five races of the season the competitor must be a member and raced in 80% of the races the previous season at Slinger Speedway with the highest driver in the previous seasons final point standings having the first option. In the case of a tie in the point standings a coin toss will determine the outcome. It is the driver's responsibility to notify Slinger Speedway officials that he or she is using a provisional. Slinger Speedway rulebooks are available to all competitors. Competitors are required to follow the rules and specifications as set forth in Slinger Speedways written rulebook. This rulebook is not intended to constitute a contract, but it is instead created for the safety of the driver's and spectators and to establish certain standards and guidelines applicable to each division. These rules shall govern the condition of all events, and by participating in these events, all participants are deemed to have complied with these rules. No expressed or implied warranty of safety shall result from publication of, or compliance with, these rules and/or regulations. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant,

spectator or official.

Slinger Super Speedway reserves the right to make rule adjustments at any time to maintain competitive racing.

No consumption of alcohol in the Technical Inspection Area until all race cars has passed inspection. Driver responsible for the conduct of all crewmembers! Fines and points will be imposed to drivers. Slinger Speedway has the right to refuse entry.

NO burnouts, donuts, or careless driving on the Slinger Speedway logo. A \$1000 fine will be assessed.

All race cars must have a legible car number on the right front headlight or right front top of windshield.

Any driver suspended from Slinger Speedway may also be suspended at all POWAR member tracks until suspension is served. POWAR is the Promoters Of Wisconsin Auto Racing.