



## ENGINES

**Option 1.:** Recommended engine is a GM sealed 19318604 or 88958604 crate motor. Engine cannot be modified and the maximum HP is 450. Engine will have a maximum RPM of 6700. Engines may have cam drilled for rear drives. Maximum 1½" carb spacer. Below is a list of part numbers. These part numbers were provided courtesy of Lane Automotive / Motor State Dist. (they are also a Wilmot track sponsor) and are everything needed to put this application into a sprint car.

SCH1052LVCM-3 Schoenfeld Headers (this is only header that fits the 604)

QFTQ-750-CTA Quick Fuel 750 cfm alcohol carb

JRP1004-S-CE Jones Serpentine Drive Kit

SWE305-80830 SWEET power steering pump

ALL31105 AllStar water pump

PRC9351 7-1/2 psi mech fuel pump

ALL81200 AllStar GM HEI Distributor w/cap

ALL27503 AllStar dist hold down

TRA2310 fuel pump mount plate

FEL1900 FelPro Holley carb gasket

FEL1901 FelPro 1" carb plate gasket

ARP200-2402 carb stud kit

NGKR5724-8 spark plugs (race)

HVHSS4150-1ALW 1" alum lightweight super sucker carb spacer

BER372-NC-EXT Bert External Drive Kit

WIN65856 Winters yoke-flange-short

ALL26156 AllStar fuel line kit

**Option2.:** Wilmot Spec Engine (build your engine). This engine will be chipped at 6800 RPM's and the maximum HP is 450. STRONGLY suggested to have engine dyno tested PRIOR to competition.



**Block:**

- A) Any Chevrolet 305, 307, 327, or 350 CI stock iron block that was available in a passenger car or truck. Max overbore - .060"
- B) No interchange of crankshafts or rods to blocks allowed.
- C) Absolutely no lightening of any kind. All mounts must remain, fuel pump, motor etc.
- D) Factory 2 or 4 bolt main blocks ONLY (can NOT alter a 2 bolt block to a 4 bolt block). No splade caps.

**Crankshaft:**

- A) Any stock GM production crankshaft allowed. The following Scat 9000 Series crankshafts are allowed:  
Chevrolet 350 - Scat (Part # 9-10442)
- B) Stroke must match block.
- C) No lightening or polishing allowed. Balancing allowed.
- D) Crankshaft flange may be machined to fit rear motor plate and torque ball housing.

**Rods:**

- A) Any stock steel production rod. No aftermarket rods allowed.
- B) Rod length must match block. Chevy 5.7" length powdered metal rods allowed.
- C) No grinding or polishing allowed. Balancing allowed.
- D) No cap screws allowed. Max 3/8" bolts.

**Pistons:**

- A) Any forged aluminum piston allowed.
- B) Engines must not exceed 9.5 to 1 compression ratio.

**Camshaft:**

- A) Hydraulic cam and lifters only.
- B) Lifters must collapse .100" min.
- C) Only lifters of engine make can be used
- D) Lifters must rotate freely and be of magnetic material.
- E) Timing chain only, no belt driven or gear drives allowed.
- F) Cam may be drilled for rear spud.



**Cylinder Heads:**

- A) Stock cast iron production cylinder heads only. No aftermarket heads allowed. Except GM EQ heads.
- B) Chevrolet 1987-1995 Swirl port heads are allowed.
- C) No Vortex, Bowtie, SVO, W-2, Magnum, Gen II, or angle plug heads allowed.
- D) The following Chevrolet casting numbers are not allowed. 040, 041, 186, 187, 291, 370, 414, 432, 461, 461X, 462, 492, 1012532, 10208890, 10239906, 12554290, 14011083, or 14096217.
- E) Porting or polishing of any kind is not allowed
- F) No angle milling, only standard reconditioning allowed
- G) Carbide cutter relief cuts allowed below the valve seat but not to exceed more than X inch below the top of the valve seat.
- H) Valve spring diameter can only be stock production.
- I) Steel stock type stamped rocker arms, roller or roller tipped rocker arms are allowed.
- J) Stud girdles are not allowed.

**Intake Manifolds:**

- A) All engines must use the following intake manifold part numbers.  
Edelbrock (Part #2701)  
Weiand (Part# 7546, 7467, or 7547-1).
- B) HVHSS4150-1ALW 1" alum lightweight super sucker carb spacer
- C) Porting, polishing, gasket matching of any kind is not allowed.
- D) Bottom of carburetor may be no more than 1-3/8 inches from top of manifold.

**Oiling System:**

- A) Wet sump only, oil pump must be in oil pan.
- B) Pan inspection plug is required, located so crankshaft & rods are visible with bore scope. 1" pipe or #12 AN size on plug. Removing the pan may be required if further inspection is necessary.

**Exhaust:**

- A) Header tube: 1/8 inch maximum outside diameter on the primary tubes, + or - .030.
- B) One collector per side.

**Water Pump & Radiator:**

- A) Any stock type water pump allowed.
- B) Radiator must be in front of engine.



**Option 3.: For 2015 Only**

There are four non 604 or build your own engines that were allowed to race in this class in 2015. These engines have been grand fathered into the class. These engines must run a quick fuel Q-500-CTA 2 barrel carb. All of these engines will be run on the dyno and sealed prior to competition . If seals are removed for any reason engine must return to dyno and be tested and resealed. If any of these four engines have a major engine failure, they will not be allowed to be repaired and return to competition in this class. Any engine components in any engine combination that are found to be illegal, modified, or altered to where they do not conform to the rules will result in ALL money and points for that event and both car and driver will be suspended for the next two racing events.

**Engine Protest:**

Engine protest fee is \$450 and must be paid to designated race director no more than 15 minutes after the completion of feature. If an engine is protested, the money won by that car that night will be held until test results are completed. If engine is found legal, the protester forfeits his \$450 protest fee, and the engine owner then receives his winnings (which were being held until dyno results), plus \$100 for inconvenience. If engine is found illegal, the protest fee is returned to protester, and winnings from illegal (engine) car from that night will forfeit winnings which will be used to pay dyno fee. The illegal engine will be marked & tagged illegal and not allowed to compete until repaired, retested and approved .

All engine dyno testing will be performed by Antioch Automotive Machine/TA Racing, located at: 40854 N Rt. 83, Antioch, IL 60002, phone: 847-395-9820 .

**General Rules for ALL Cars:**

**Carburetor:**

- A) A minimum of two (2) return springs must be connected to throttle.
- B) Must have toe strap on throttle pedal.
- C) QFTQ-750-CTA Quick Fuel 750 cfm alcohol carb.

Base plate of carburetor must remain unaltered. (2019. Entire carburetor must remain unaltered)

- D) 1.5" max carb spacing. This will include the linkage plate if used.

**Fuel Pump:**

- A) A mechanical, belt driven, or cam driven fuel pump is allowed. Cam driven recommended .
- B) No Electric fuel pumps allowed.

**Ignition System:**

- A) GM HEI Distributor.
- B) Internal coil vertex magneto .
- F) Mandatory MSD soft touch box P/N 8728 or P/N 8727CT.



## ***Wisconsin WingLESS Sprint Rules - 2016***

- C) No electronic monitoring devices capable of storing or transmitting information except tach.
- D) No electronic traction control devices.
- E) No MSD type Mags allowed.

F) Mandatory MSD soft touch box P/N 8728 or P/N 8727CT.



## Wisconsin WingLESS Sprint Rules - 2016

**Fuel:** Methanol (or Ethanol) based fuel only. No performance enhancing additives

allowed. Fuel can be checked at any time. Fuel Bladders are mandatory. No carbon fiber

or composite material shells allowed. Wilmot reserves the right to send samples out for more comprehensive testing if deemed necessary. If illegal, penalty will result in disqualification and forfeiture of points and money earned.

**Tires:** Hoosier 4 corner rule, 16" H15, H20, or Med RR, and 15" H12, H15 LR. No preps or softeners. Cars will not be allowed to race with flat LR, RR, RF. (or LF if off the bead).

**Wheels:** Aluminum or steel only. Max width is 18" RR, 15" LR. Wheel covers must use steel fasteners only. Mechanical bleeders only. Electronic bleeders are not allowed

**Cars:** Must resemble traditional sprint car design. Anything different (including body panels, bumpers, nerfs, etc) must meet pre-approval from Wilmot officials prior to competition, or risk disqualification. Any car deemed unsafe by Wilmot officials will be denied competition at any time, including attempting to re-enter the track from the work area.

**Chassis:** Roll cage must be of 4 post design. Wheel base no less than 83" and no more than 90". No less than 39" set back on motor. No elliptical tubing used on or as part of main structure. The following measurements are minimum suggested material: 4130 normalized. Top Rails: 1 Y, x .095, Bottom Rails: 1 3/8 x .095 or 1 Y, x .083. Roll Cage Uprights: 13/8 x .083, Roll Cage Top Cross Member: 1 Y, x .095. Upper Rails: 13/8 x .083, Rear End Safety Bar (mandatory): 1x .083 or 1 Y, x .065 Brace.

**Weight Rules:** Cars must weigh a minimum of 1500 lbs, including the driver. Cars can be weighed at any time. If a car fails to meet that requirement it will be considered last in that specific event with no further penalty. A car can cross the scales no more than twice to determine weight, unless requested by Wilmot Official. Any bolt on additional ballast will not be allowed.

**Brakes:** All cars must be equipped with the minimum of 2 brakes, one front and one rear. Only steel, aluminum, titanium, or carbon fiber brake rotors allowed. Cars knowingly without working brakes will not be allowed to race, or resume racing.

**Shocks:** No cockpit adjustable shocks.

**Mufflers:** Wilmot wingless class does not require Mufflers, if teams choose to run mufflers they must use shoefeld adaptor 3530 & muffler 14272735-78 or 112535. Mufflers need to be welded, thru bolted, or attached by approved clamp system (King). Loss of muffler will result in a black flag or disqualification (to last place) for that event.

**Front Axle:** Steel only. Minimum sizes 2" x .156, 2 Y, x .120, 2 3/8 x .095. Note, front axle tether systems not required but are strongly suggested.

**Drag Link:** Drag links must be tethered to the frame. Captured steel heim ends and a 1" diameter steel construction with .058 sidewalls are suggested for drag links and tie rods.

**Rear Ends:** Traditional type sprint car quick change rear end with 10" ring gear required



**Drivelines:** Drivelines must be completely enclosed and must utilize a torque tube and/or strap restraint. Carbon fiber torque tubes are legal. Wilmot STRONGLY urges the use of a driveline containment system. Driveline u-joint scatter shields, steel torque ball housings minimum .120 thick and/or torque ball u-joint containment blankets are again STRONGLY encouraged and suggested.

**Floor Pan:** Steel or aluminum only. Wedges and/or foils underneath the race car will not be permitted.

**Torsion Bar:** No cockpit adjustability. Stop & arm locks are required on front.

**Bumpers & Nerfs:** All rear bumpers must be steel, minimum 1" diameter and minimum .065 thick. The front bumper must not extend more than 8" from the frame and/or the measurement from the center of the front axle to the front bumper must not exceed 23 1/2". NOTE, anything designed beyond "chassis mfg normal" must be pre-approved prior to competition.

**Body Side Panel:** Right side panel must have a minimum opening of 10" x 21". Maximum distance from the frame is 7". Radius rod protectors are permitted, the maximum protector vertical opening will be 10" in height by 24" long and it must NOT extend more than 3 1/2" from the outside edge of the bottom frame rails. A 1 1/2" wide by 20" long exhaust fume deflector, located on the bottom side-body panel at the rear edge will be permitted. The turnout angle must not exceed 90 degrees. Elbow room alterations must be limited to the area between the roll cage and not be designed to trap or deflect air in order to gain a competitive advantage. All other side paneling must be fabricated flat and must not extend past the outside edge of the frame rails more than the thickness of the paneling material. We suggest any panel, hood, radius rod protectors, fume deflectors, etc. beyond the normal appearance be pre-approved by Wilmot Officials. Car number needs to be displayed on right side panel.

**Seats:** FIA and/or SFI rating STRONGLY RECOMMENDED. Seat mounting to be done per manufacturer's recommendations. All seats are STRONGLY SUGGESTED to meet SFI 39.2 specifications. The driver's left side headrest must extend at least 4" forward from the back of the headrest (where the helmet contacts the back of the headrest). All areas surrounding the head should have padding. A approved driver's cockpit net, STRONGLY RECOMMENDED for the left side if the helmet headrest / helmet surround is less than 7" forward from the back of the seat. The net should be a minimum of 3 ribbons and meet SFI 37.1 specifications, installed per the manufacturer's specifications.

**Head & Neck Restraint Systems:** STRONGLY SUGGESTED. Devices should meet SFI 3.3 specs, and be installed per manufacturer's instructions.

**Seat Belts:** Each car will be equipped with a minimum of an SFI 16.5 or SFI 16.1 approved restraint system, and be within the 2 year expiration date from manufacturer. Seat belt restraint systems shall be installed and used in accordance with manufacturer's instructions. Seat belt material should not be allowed to come in contact with any sharp or metal edge, including when the belt passes through the seat.

**Driving Suit:** The driver's suit should be constructed of multi-layered fire retardant material of SFI rating 3.2A/5 or above. Fire retardant gloves and shoes are mandatory. Nomex (or equivalent) underwear, socks, head sock and/or head skirt are also STRONGLY RECOMMENDED. Arm restraints are also STRONGLY RECOMMENDED, as are knee pads and/or protection around or near steering box.



**Helmets:** All drivers ARE REQUIRED to wear a full face helmet with a minimum safety rating of FIA 8860-2010, Snell SA 2010 or better, Snell SAH 2010 and/or valid SFI 31,1/2005/2010 label. Or newer

**Rock Screens:** STRONGLY SUGGESTED

**RaceCeiver Radio:** A WORKING RaceCeiver Radio is mandatory, channel 454.000. Failing to have a working radio, or disobeying a Wilmot Official's voice command can lead to disqualification and forfeiture of money earned.

- NO MIRRORS, radios (other than RaceCeiver) or communication equipment allowed.
- No hollow or drilled out bolts

**UNSPORTSMAN-LIKE CONDUCT:** While we understand that auto racing is a highly emotional sport, we understand that good sportsmanship is the cornerstone of any race program. This must include respect for all participants, Wilmot Officials, track ownership & staff, push truck & wrecker crews, fans, and sponsors. While we understand the emotion, Wilmot will not tolerate public displays of poor sportsmanship, stopping your race car on the track to dispute a call or scoring placement, fighting, harassment, or verbal abuse. Threatening or obscene gestures and/or language aimed at an official or competitor, rough driving, fighting, pushing or assaulting an official, or destroying Wilmot property WILL result in disqualification, forfeiture of money, banishment from premises, and suspension. In case of suspension, if a number of race dates are handed out, rain-outs do not count. If money has been paid prior to an infraction of any kind and a penalty assessed, the money **MUST BE** returned to Wilmot prior to any further competition at the raceway. Drivers and owners are responsible for the actions of their crews. Entering another racer's pit stall in an aggressive manner is already a fault and in situations where problems escalate because of it will have that taken into consideration, thus stay out of other competitor's pit stalls. It should be noted that team members whose car is not on the scales, or in the work area.... **HAVE NO BUSINESS BEING IN THOSE AREAS!** In closing, sportsmanship does not just pertain to activities at the track. Social media is included Remember what you say, or type, has meaning and what you do has consequences, so please think before you lash out.

- No alcohol, or illegal drugs may be consumed by a driver before or during an event. We reserve the right to have the track medical staff determine if a driver, who we may suspect of doing either, be fit for competition.
- Parents are responsible for their minor children's actions and safety whom they sign a release for to gain entry to the pit area. The pit area is considered a restricted area.

#### SPIRIT OF THE RULE

Although every effort has been directed towards complete, understandable, and correct rules, Wilmot can't possibly anticipate every situation, circumstance, or interpretation. With this in mind, we must refer to the SPIRIT OF THE RULE. Spirit of the Rule means very simply, the intent of every rule and classification. Additional adjustments, alterations,



modifications, and/or replacements not covered by written rules should NOT be assumed to be legal under the SPIRIT OF THE RULE. SPIRIT OF THE RULE will be the final criteria by which rules will be interpreted and enforced.

#### RULE BOOK DISCLAIMER

The rules and/or regulations set forth herein are designed to provide for orderly conduct of racing events and to establish minimum acceptable requirements for such events. 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 A 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.

The Wilmot Raceway shall be empowered to permit minor deviation from any of the specifications herein or impose any further restrictions that in his opinion do not alter the minimum acceptable requirements. NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF SPECIFICATIONS.

Any interpretation or deviation of these rules is left to the discretion of the Wilmot Officials.