



# Four-Cylinder Super Stocks

(Version – 7/26/23)

 = an update or change from previous version

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### I. CLASS DESCRIPTION

1. The Four-cylinder class is based on mass produced, four passenger sub compact cars with a maximum wheelbase of 104.0”.
2. The cars are essentially stock with modifications limited to two basic areas – engines and tires/wheels/suspension. All other components must be O.E.M. or direct replacement except as specifically stated herein. These components may be reinforced or heavy duty, but no further modifications are allowed.

### II. PROCEDURAL RULES

1. Refer to the DIRTcar Rulebook at [www.dirtcar.com](http://www.dirtcar.com) for procedural and disciplinary rules which governs all on and off track activity at Brewerton Speedway.
2. All drivers must be licensed members of DIRTcar (Sport Compact) in order to compete at Brewerton Speedway. Find DIRTcar membership information at [www.dirtcarmembers.com](http://www.dirtcarmembers.com).
3. All drivers must have a one-way radio tuned to channel 454.000 during all on-track activity including hot laps.

### III. DRIVER SAFETY AND RACING EQUIPMENT

1. Each competitor is solely responsible for the effectiveness and proper installation, per the manufacturer’s specifications, of personal safety equipment and determining it to be adequate for competition at every event. Each competitor is expected to investigate and educate him or herself for continuing improvement regarding their own personal safety equipment.
2. Seat Belt/Restraint System
  - a. Each car must be equipped with minimum of an SFI 16.5 or SFI 16.1 approved restraint system. Restraint system will be eligible for use in competition for 2 years from the date of manufacture or the expiration date.

Seat belt restraint systems shall be installed and used in accordance with manufacturer's instructions.

- b. In any type of manufacturer's installation, the fasteners must be as supplied by the manufacturer unless using type of mount in which the seat belt wraps around the roll cage.
- c. Seat belt material should not be permitted to come in contact with any sharp or metal edge, including when the material passes through the seat.

**3. Protective Clothing**

- a. All drivers are required to wear a fire resistant driving uniform meeting minimum of the SFI 3.2A/5 specification and display a valid SFI 3.2A/5 label on the outside of the uniform.
- b. Drivers must wear gloves at all times they are on track. Driver's gloves must meet or exceed the SFI 3.3 specification and have a legible and valid SFI 3.3 label.
- c. All drivers should wear fire resistant accessories including but not limited to; head sock, under garments, shoes, and socks. Shoes should meet minimum of the SFI 3.3 specifications and display a valid SFI 3.3 label

**4. Seats**

- a. Aluminum and/or carbon fiber-type composite seats only permitted. If a carbon fiber-type composite seat is used it must meet the SFI 39.2 ratings. Aluminum seats with an FIA and/or SFI 39.2 rating are recommended.
- b. All seats must be mounted to the frame as required by the seat and chassis manufacturer. Full containment seat(s) are recommended.
- c. All areas surrounding the head should have padding.
- d. The driver's seat must be securely fastened to the frame and/or cage in six positions with a minimum of six (6) 3/8"-inch bolts, grade 5 or better. There should be a minimum of four (4) bolts on the bottom and two (2) in the back of the seat.
- e. All seats must be a minimum of 1/8"-inch magnetic steel plate under and up the back 4" inches and be as wide as the seat. Only single piece high back type seats are permitted.

**3. Helmets**

- a. All drivers must wear a full-face helmet with a minimum safety rating of FIA 8860-2010, Snell SA 2020, Snell SA 2015, Snell SA 2010, Snell SAH 2010 and/or a valid SFI 31.1/2005 label.

**4. Head and Neck Restraint System**

- a. Drivers, at all times they are on the track, must have their helmets correctly (following manufacturers installation and use instructions) connected to an approved head and neck restraint.
- b. The head and neck restraint must be SFI 38.1 approved and display a legible and valid SFI 38.1 label.

**5. Other General Safety Items**

- a. All cars must be equipped with an SFI 27.1 certified driver's side window net securely mounted to the roll cage.
- b. Sharp and/or protruding edges in and around the cockpit will not be permitted.

- c. SFI-approved and labeled seat, roll bar, knee and steering pads and/or padding is recommended
- d. All teams must have a minimum of 2.5 lb. fire extinguisher in their hauler with minimum ABC rating.

#### **IV. CHASSIS SPECIFICATIONS**

##### **1. Minimum Weights**

- a. One pound per cubic centimeter (cc) - 2050 minimum up to **2600 maximum.** All weights measured at the completion of a given event with driver in car. No fuel may be added to reach minimum weight.
- b. Competitive Weight Adjustment: Track officials reserve the right to institute a competitive weight penalty, with weight added to a location to be determined by track officials.
- c. All cars must have minimum weight and cubic centimeters lettered on the hood.
- d. Ballast weight must be lead weight or steel plates mounted to frame by weight ballast clamps. No welding weight to frame allowed. No dumbbells may be used. All ballast weight must be painted white and have car number on it.

##### **2. Exhaust**

- a. Any exhaust system may be used. All exhaust systems must exit outside body shell.
- b. MUFFLERS MANDATORY. Passenger style, California Turbo style should be used. Sound level not to exceed 90db at 50 feet.

##### **3. Suspension**

- a. Suspension rear end substitution allowed. Volkswagen Rabbit rear ends must be reinforced or altered for strength.
- b. All suspension pivot points must retain stock location and stock track width. Any stabilizer bar may be added or removed in front and/or rear. Bushings may be changed.
- c. Struts, shocks, and springs must be O.E.M. replacement. Strut suspension reinforced top and bottom. Springs may be of various tensions. A-Frames may be strengthened.
- d. No floaters. All drive line and suspension parts, also engine, must be the same as floor pan.

##### **4. Brakes**

- a. Four-wheel hydraulic brakes in good working order. May use proportioning valves.

##### **5. Wheels And Tires**

- a. Stock wheels are not permitted.
- b. Only aftermarket steel racing wheels permitted. Wheels are permitted a 7" maximum width, may be single or double wall and have a 3"- 4" maximum offset. Back of rim making contact with hub MUST be flat surface (no concave).
- c. Bead locks are permitted.
- d. No spacers or spacing allowed between hub and wheel.
- e. 1" hex racing lug nuts mandatory.

- f. ½" wheel studs required. Studs must protrude through the lug nut a minimum of ¼".
  - g. Any tire with 8" TREAD WIDTH MAXIMUM. Racing recaps may be used. McCreary Roadstar DOT tires are acceptable. Grooving of tires is permitted. NO wheel plugs/covers/inserts.
6. **Frame**
- a. No tube frames. Reinforcement of stock frame is permitted. Front and rear sub-frames must be tied together on uni-body cars.
7. **Floor Pan**
- a. Complete floor pan MUST be used. Holes through floor pan must be sealed. Body and floor pan must remain essentially stock.
8. **Transmission/Driveline**
- a. Must be complete transmission. Gearing may be changed.
  - b. Five speeds may be used.
  - c. Automatic or standard O.E. style transmission.
  - d. A drive shaft loop must be installed within 6"-12" of the front universal joint to prevent drive shaft dropping in case of breakage.
9. **Interior**
- a. Must be ENTIRELY gutted.
  - b. Remove or pad all sharp edges.
  - c. All pedals must remain in stock location.
  - d. A full six (6) POINT roll cage with headrest constructed of mild steel tubing is MANDATORY. Major tubes MUST be 1 ½ O.D. X .090 wall thickness MINIMUM. The major tubes are all tubes in the six-point cage and the driver's door bars.
  - e. Driver and passenger openings must have three side bars with uprights.
  - f. Front firewall must be stock with holes plugged.
  - g. A 20 gauge metal firewall must be installed behind the driver, extend to the rear window opening, and completely enclose the rear deck. Must be securely bolted, riveted, or welded in place.
  - h. Interior tinwork: No cockpit style enclosed tinwork. Right side may have tin flat front to rear up to 12" from the floorboard.
10. **Steering Column**
- a. May not be lengthened, shortened, or relocated. A collapsible steering column is highly recommended.
11. **Ground Clearance**
- a. MINIMUM ground clearance is 4" measured to the lowest part of the chassis.
12. **Tow Hooks**
- a. All cars must have tow hooks mounted on the front and rear.

## **V. BODY SPECIFICATIONS**

### **1. Appearance**

- a. Overall appearance must be OEM stock to the eye.
- b. No chopping, channeling, or sectioning.
- c. Front inner fenders optional.
- d. Full rocker panels must be used.

- e. Wheel well openings may be reasonably radiused for tire clearance.
  - f. Bodies must be complete.
  - g. Body may not be lowered over floor pan.
  - h. Body must be of same manufacturer as original floor pan. Wheel base of new body must be same as original body within 2 inches.
  - i. Headlight and tail light openings must be sealed to driver's compartment.
  - j. All glass, lights, side body moldings and door latches must be removed.
2. **Hood**
- a. A 2" maximum height hood scoop is allowed. Hood scoop must be completely enclosed and be neat in appearance-No ram air.
  - b. Hoods must be chained and/or approved hood pins must be used.
3. **Windshield**
- a. Stock windshield must be removed.
  - b. Windshield area and grill cavity must be wire screened, NO CHICKEN WIRE.
  - c. The windshield must also have one safety bar and two safety straps, one in center and one 5" from center on each side.
4. **Bumpers**
- a. MUST be stock appearing, with ends capped with steel cap and/or brought in flush.
5. **Rub Rail**
- a. Single side rub rails permitted, must NOT extend more than 1" from body.
  - b. Driver's side rub rail must be level, passenger side may be tipped town slightly from front to rear to prevent overlap on contact.
  - c. ALL rub rails must be rolled in towards body on end.
6. **Deck Lids/Rear Hatches**
- a. Must remain stock.
7. **Numbers and Graphics**
- a. Legible numbers must appear at least 12" high in contrasting color and must be on driver and passenger door and on roof.
  - b. Engine displacement and minimum weight must be painted on hood in 2" letters on driver's side.

## **VI. ENGINE SPECIFICATIONS**

1. **General**
- a. Normally aspirated, four cylinder, four cycle, single (up to 4-valves per cylinder) or dual overhead cam engines permitted.
  - b. Engine displacement may be no greater than 2560cc.
  - c. Engine block and cylinder heads must be stock appearing.
  - d. Engine must match chassis manufacturer.
2. **Carburetor/Fuel Injection**
- a. Any single or 2 barrel carburetor including Holley #4412 OEM.
  - b. Must run a maximum spacer adapter of 1" including gaskets.
  - c. No modification of any kind allowed to the carburetor except the removal of the choke plate and shaft. Box stock only.
  - d. The jets may be changed as needed.

- e. Conventional round type air cleaners only. NO air induction plastic carburetor inserts or other devices to direct air into the intake.
  - f. All carburetors must remain under the hood.
  - g. Throttle area not to exceed 43mm (1 11/16”).
  - h. Fuel injection allowed stock on fuel injected engines.
  - i. Two throttle return springs required.
3. **Intake Manifold**
- a. NO altering of manifolds. The only exception is where it accepts the carburetor or spacer plate.
  - b. Fuel injected manifolds must be used on fuel injected systems. Carburetor manifolds used on carburetor systems only.
4. **Battery and Ignition**
- a. Any battery operated ignition.
  - b. No Magnetos.
  - c. Battery MUST be located in either the engine compartment in a safe manner or in drivers compartment. If located in driver’s area, the battery must be completely covered.
  - d. Marine style brackets are recommended.
  - e. All cars must have a battery disconnect switch, located on the left side of the steering column at the A-pillar.
5. **Cooling System**
- a. Any radiator, fan, or shrouding may be used. Must be mounted within limits of stock location.
6. **Lubrication System**
- a. May be modified.
  - b. Dry sump systems are not allowed.
  - c. Oil coolers must be mounted in engine compartment.
7. **Fuel and Fuel System**
- a. Fuel cell required.
  - b. Fuel cell must have an operational one-way flapper/rollover valve.
  - c. Only fuel rated hose lines may be used for fuel lines.
  - d. Steel braided fuel line, highly recommended.
  - e. Fuel line in driver’s compartment MUST be steel line covered with rubber hose securely fastened with shutoff valve.
  - f. No alcohol. Gasoline only.