



**2022**

**STREET STOCK RULES Rule Book Disclaimer**

The following rules shall govern the Street Stock racing events held under the direction of the Borderland Racing Association. The rules and/or regulations set forth herein are designed to provide the 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 participation in these events, all participants are deemed to have complied with these rules. **NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATIONS OF, OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS.**

1. The Tech Officials 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 EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATIONS OF SPECIFICATIONS.** Any interpretation of, or deviation from these rules is left to the discretion of the Tech Officials. **Their decision is final.**

1a) IF IT IS NOT FOUND IN THE RULES, YOU CAN NOT DO IT OR USE IT.

1b) IF THE TECH INSPECTOR DOES NOT APPROVE, IT IS NOT LEGAL.

1c) "O.E.M." means and refers to "Original Equipment Manufacture"

**ROLL CAGES**

1. Main cage must be a minimum of 1.5 inches outside diameter .095 inch wall thickness. Door bars as seen in the diagram are mandatory and we strongly recommend that a four bar be used. Vent bars are mandatory on both sides. Must consist of continuous hoops. All cars must have a leg bar or equivalent from the left front cage post forward to frame. Cage must be mounted in at least seven (7) places (leg bar being the 7th place). Outside of door bars must be covered by a single sheet of 16-gauge minimum thickness steel. Must be securely welded on all edges to the door bars. Must also be stitch welded to the horizontal door bars with a minimum of three stitches. The Driver's head must not protrude above the top of the cage with helmet on and strapped in. 1 ½" clearance between helmet and "Halo" bottom is advised.
2. Low carbon, mild steel tubing. No exotic metals will be allowed. No square tubing for cage structure allowed.
3. Tech inspectors may require a 3/16" inspection hole in the roll cage.
4. Door bars must be horizontal and located so as to provide maximum protection for the driver. The sidebar must be welded to the front and rear of the cage members and to the chassis at each end.
5. Two members must be installed from the bottom member of the driver's door to the frame. One member to be installed in the center of the windshield, "Dale Earnhardt Bar".
6. Halo/roof hoop minimum width of 38" outside to outside. Depth - 24" outside to outside with minimum of one cross bar.

## **BODIES**

1. Cars must remain stock appearing. Roof, trunk and hood must remain in stock location and maintain a stock appearance. Body panels do not have to match the frame or manufacturer. No O.E.M. galvanized panels allowed. Removable non-essential galvanized parts should be removed. Body panels may be homemade but resemble a stock appearance - may be of steel or aluminum. Air filter may protrude through the hood.
2. May fabricate a front fire wall, stock firewall and floor pan must be stock and in stock location for the frame being used. If fabricating a firewall must be flat or straight and may be moved back no more than seven inches from the rear of the engine. Fabricated firewalls must be made with a minimum thickness of .049" steel and must be positioned straight up and down and straight across. Fabricated firewall must be 24"-26" tall measured vertically from the top of the frame rail

up. If using the original firewall all holes in the firewall must be patched with metal. Including the cavity of where the heater core fits.

3. Boxed-in cockpits are allowed. Internal panels may be removed for the roll cage. Floorboards must be covered with a sheet of steel minimum 16 gauge that runs from the 3 drivers pedals to the rear of driver's seat, from left frame rail to, and over drive shaft tunnel. Floorboards must extend to the main cage uprights behind the seat.

4. On uni-body cars, floorboards must run from the firewall to the rear bumper. Trunks may be cut out for fuel cells but no excessive cutting allowed. No cutting out of the floor to expose the frame. Front and rear frame must be tied together.

6. Brake and throttle pedal, steering wheel and master cylinder must be in stock location.

7. Side skirts allowed, minimum of 4" ground clearance. Rock guard in front of driver recommended.

8. Seat must be on the left side of the car and must be securely fastened to the roll cage and/or frame. Approved racing seats only. Minimum of  $\frac{3}{8}$  bolts. Two on the seat bottom and two on the seat backrest. With the driver seated and belted in the car shoulders can be no closer than 28" to the rear axle.

9. Windshield must have a screen or bars in front of the driver.

11. All cars must have a rear firewall between driver and fuel cell. It must be made of steel or aluminum.

12. Must have front and rear bumpers. May use stock type bumpers. No sharp edges. May use tube bumpers of equivalent nature. Front and rear bumper tubing must make a complete loop back to the frame or bumper to prevent "hooking". Collapsible bumper mounts must be rendered inoperable. Bumpers may be covered with nose cones or tail sections. Aftermarket racing bumper covers are allowed.

13. Rear spoilers allowed. Maximum measurements are 6" in height. Fins will follow modified fin rules in Wisconsin.

14. Roof must be securely bolted to the roll cage "Halo". 7/16" (11mm) bolts recommended. - Minimum four bolts. Composite roofs are allowed.

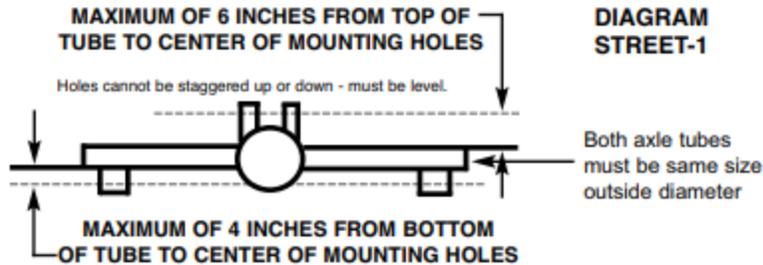
## **CHASSIS AND WHEEL BASE**

1. Any North-American made full frame car or uni-body car with a minimum wheelbase of 108" with a half-inch tolerance will be allowed. Any frame/body combination that conforms to all other rules is allowed.
2. Minimum total weight of 3200 pounds with driver after race. With headers 3150 pounds with stock manifolds.

## **STEERING AND SUSPENSION, FRONT AND REAR**

1. All front and rear suspension must remain stock except tubular upper "A" frame. Stock passenger car spindles and hubs only, or stock replaced 3 piece spindles for frame being used. Spindles, rotors, calipers, and stock lower "A" frames must match chassis being used, and may use steel lower "A" frame bushings allowed, the hole must be in the center of the bushings.. Tubular upper "A" frames are allowed on stock upper control arm mounts in stock location. Stock type or other bushings allowed but hole must be concentric/match OEM.
2. Rear aftermarket trailing arms allowed, must be stock length for chassis being used.
3. Any shock absorber non bulb top may be used as long as it mounts on the stock upper and lower mounts. Mounts must be in stock location. One shock per wheel only. Shocks - heim joints and Tbars allowed. Shock must mount within the stock location. One shock per wheel. Shocks must be steel bodied.
4. Springs must be in the stock location and position with stock spring hangers only. Any 4½" minimum diameter spring allowed front and rear. Leaf springs must be stock or replaced with stock style and must use original mounts. Lowering blocks are allowed on leaf cars only.
5. Steel brake components only. Brakes must be operating and must lock up all four wheels. Rear disc brakes allowed. O.E.M. calipers only. Steel vented rotors only. No aftermarket racing brake components allowed. Must be stock production components, OEM year appropriate brake components only. Double piston single master cylinders only - no dual master cylinders.
6. No lighting or grinding of any suspension part allowed. Stock steering components to include but not limited to drag link and stock length factory tie rod ends, can use steel swedge tubes on tie rods in replacement of stock sleeve. Center link brace for steering is not allowed. No interchange of unibody, midsize metric, and big metric/steering parts.

7. No steering quickeners or quick steering boxes allowed. Must be a minimum of 2.5 turns from lock to lock.



## **TIRES AND WHEELS**

1. Steel wheels only, up to 8" wide allowed. Right side rims must be reinforced or after-market.
2. Maximum tire size is 8" advertised width. Tire grooving and siping is allowed. No deep lug or snow tire.
3. Bead locks are allowed on any corner of the car.
4. Oversized lug nuts only, minimum of 1" OD. 5/8" wheel studs recommended.
5. Wheel spacers or adapters allowed. 1" total thickness, may be aluminum.

## **DRIVE TRAIN**

1. O.E.M. automatic transmission only. Torque converter must be fully functioning, minimum 10 3/16" actual diameter. Converter must have a 1/8" drain plug on the outside. Converter must be the same temperature or hotter than the transmission. Converter, when drained, must measure a volume no less than 3 quarts (U.S.). Addition of material to increase stock converter diameter is illegal. All transmissions must have an operating forward, neutral and reverse. No electronic, functioning lock-up type converter transmissions allowed. Safety blanket is strongly recommended. Must be able to shift tranny from gear to gear while the engine is running.
2. May intermarriage engines and transmissions.
3. Any passenger car or truck stock rear end may be used. Full floating rear ends allowed. Welded spiders or steel spools only. No limited slip type rear differentials are allowed.

4. All rear end mounts must be stock. See attached Diagrams!!!!

5. Stock holes on all mounts only.

## **ENGINES**

**Cylinder Heads** The following machining can be done to cylinder heads in the following engine combinations: WISSOTA Street Stock Concept Engine (this does not apply to the GM 602 Sealed Crate Street Stock Engine: All heads, including stock and aftermarket heads in all options, can have guide plates installed. Push tube area of heads can be opened up. Valve guide seals can be installed. You are allowed to replace valve guides but must follow stock geometry. Can use valve spring buckets/valve spring locators. Valve spring shims are allowed. Heads can be milled according to class rules and specific milling rules. Must follow all other class rules.

**Open Compression Regular Engine** No intermarriage of engines [G.M. for G.M., Ford for Ford, etc., only]. No Pontiac, Olds- mobile, AMC or other engines allowed. See section 1 general rules, 1.1 general application.

1. No aluminum or aftermarket blocks allowed. No splayed or aftermarket main caps allowed. No turning a block that wasn't produced as a 4 bolt main into a 4 bolt main block. No grinding or polishing of any kind allowed to block. The two rear oil return holes in the lifter galley can have the flashing ground out of the hole only. Lifter galley vent tubes are not allowed.

2. All cars must be equipped with an engine with a stock stroke. No intermingling of crankshafts, rods or pistons to change stroke. Crankshaft and connecting rods must be O.E.M. to block with no lightening, grinding, knife edging or polishing of any type. Aftermarket rods or crankshaft allowed by specific part number only. The following aftermarket crankshaft and connecting rods are allowed in all engine options: Chevrolet: Eagle Rod SIR5700BBLW • Eagle Rod SIR5700BPLW Eagle Crank 103503480 • Eagle Crank 103503480CM • Eagle Crank 103523480 Scat Crank Short P/N# 910442 • Scat Crank Short P/N# 910526 Scat Rod P/N# 35700P • Scat Rod P/N# 25700P, Scat Rod P/N 25700 and Scat Rod P/N 35700 Ford 302: Eagle Rod SIR5090FB • Eagle Rod SIR5090FP Eagle Crank 103023000 • Eagle Crank 103023000-50 Ford 351W: Eagle Rod SIR5956FP • Eagle Rod SIR5956FB Chrysler 360: Eagle Rod SIR6123CB • Eagle Rod SIR6123CP Eagle Crank 103603580 Chrysler 318: Eagle Rod SIR6123CB Eagle Crank CRS103403310 The following aftermarket stock replacement steel crankshafts are also allowed: Chevrolet: Eagle 435034805700, Scat 4-350-3480-5700, Manley 190310, Performance Engine Products (PEP) DG3182D. Ford 302: Eagle 430230015090. Chrysler: Eagle 434033106123. If using stock connecting rods and crankshafts, they must be O.E.M. to block. No lightening, grinding, knife edging or polishing of any type on any connecting rod or

crankshaft, whether stock or aftermarket. No marine parts. Absolutely no strokers. Balancing is allowed. No aftermarket harmonic balancers allowed. Stock balancers only. Balancer may be degreed but must meet measurements below. No modifications of any kind allowed. No 283, 307 or 327 balancers allowed on any engine other than a 283, 307 or small journal 327. Minimum size 283-307 and small journal 327 is 6-1/8 by 3/4 inch thick. 305, 350 and large journal 327 minimum size is 6-3/4 by 1-3/16 inch thick. No fluid balancers. No hubs only - balancer must be two piece. Floating wrist pins allowed. No rod cap screws allowed on stock rods.

3. The maximum engine over bore permitted will be .040 on the 360 Chrysler engine. On Chevrolet, Ford and 340 Chrysler, the maximum over bore permitted will be .060. Stock-type flat top or dished pistons only. Pistons must be below deck on all engines.

3a. Chevrolet engines will be permitted a maximum displacement of 360.4 c.i.d.

3b. Ford engines will be permitted a maximum displacement of 362 c.i.d.

3c. 360 Chrysler engines will be permitted a maximum displacement of 367 c.i.d.

4. Distributors. Stock type distributors only. Billet distributors allowed. No multiple-spark boxes. No magnetos or dual-point distributors allowed. Any coil used must fit in the stock cap and must use a stock coil cover. GM H.E.I. Distributor can be interchanged with Ford and Mopar engines. May have an external coil with Adaptacap.

5. Stock cast iron two or four barrel intake manifolds only. No aftermarket, marine, propane, throttle body or fuel injected manifolds. No raised plenum truck manifolds. Absolutely no reworked intake manifolds. No coating, painting, grinding, port matching, polishing or acid porting work in the inside of the intake manifold. Center intake bolt holes may be drilled to match 1987-1995 Chevrolet heads.

6. Cylinder heads O.E.M. only; no angle milling allowed. EQ part number EQ-CH350I cylinder heads are allowed on the open/regular engine. Maximum compression is 10.5:1. Valve size of 6a.94 intake and 1.50 exhaust. Valve stem must be 11/32. No hollow or titanium valves. Minimum valve weight for intake is 103 grams. Minimum valve weight for exhaust is 87 grams. Stock steel valve spring retainers. Stock diameter valve springs only. No beehive or conical valve springs allowed. Stock stamped steel rockers only with 1.5 ratio.

6b. No angle plug, Vortec or camelback heads or comparable camelback heads allowed on Chevrolet. Some of the casting numbers not allowed include: 186, 187, 414, 492, 461, 461X, 462, 432, 041, 040, 040, 370, 10239906, 14011083, 14096217, 10125320, 10208890, 12554290. Also, no A.R.D. heads, no GT40 or magnum heads allowed.

6c. No Bowtie, SVO, W2 or any other aftermarket heads allowed at any time.

6d. No porting, polishing, grinding or port matching allowed at any time. Valve seats may be ground no further than 1/4-inch below top of the seat.

6e. Valve size must match the head being used. No 2.02 intake valves on Chevrolet or Chrysler. No 1.6 exhaust valves.

6f. Stock ratio rockers only; no fulcrum roller or roller-tipped rockers allowed. No stud girdles allowed. Guide plates allowed. Stamped steel rockers only. No modifications of any kind allowed on rockers except oil hole may be deburred. Valley pans allowed. Rocker arm oil sprayers are not allowed.

6g. Valve springs must be the stock diameter for the cylinder head being used

6f. No titanium parts of any kind allowed.

6h. Deburring is allowed on engine blocks, heads and intake on the outside machined edges only, not to exceed .040 inches.

## 7. Camshafts

7a. Hydraulic camshafts and lifters only. No roller cams or roller lifters allowed. No mushroom or step lifters allowed. No machining permitted to install cam or lifters. Must be able to remove lifters from the top of the lifter galley at any time. Bushing of lifter bores is not allowed. Lifters must be steel or iron and must be free to rotate.

7b. Any timing chain allowed. No gear drives allowed. Valve timing configuration and firing order must match the engine used. Example: Chevy 18436572.

8. Headers are allowed. No tri-y's or 180's.

9. One (1) radiator only; must be in stock location. Aluminum radiator allowed.

10. No crank trigger ignitions allowed.

11. No vacuum pump/air pump allowed.

12. No beehive-conical type valve springs allowed. No dual valve springs on Chevy engines.

13. External cooling lines maximum of 2 lines from the back of the intake to enter into the thermostat housing or spacer. No other external cooling lines allowed. Surge tank hose can enter into the water pump. Surge tank cannot hold more than one half gallon of coolant and must be located in the engine compartment.

14. All engines are allowed to run a valve train oil deflector.

15. No coating, painting or any other work to the inside of intake manifolds, heads and block lifter galley allowed. No coating of any crankshaft or rods is allowed.

16. Lifters must collapse a minimum of 100 thousands and be made of magnetic material.
17. No external engine oil pumps of any kind allowed.
18. Starter must be in stock location.
19. Main cap girdle not allowed. Crank scraper not allowed. Pan scraper is allowed.
20. Minimum 3/4" inspection hole required in the side of the oil pan 2-1/2" down from pan rail in line with a journal. Inspection hole must be easily accessible to the inspector.
21. One 12 volt battery is only allowed.
22. No oil accumulators.
23. You are allowed to clearance front of block for timing chain clearance

#### WISSOTA Street Stock Concept Engine

1. Same bottom end as WISSOTA currently allows in the Street Stocks & Midwest Mods. 350 Chevy engines maximum over-bore .060.
2. Spec Icon flat top piston P/N SO2733 or SO2733LCA, or Mahle flat top piston P/N WIS50030F05, WIS50040F05 or WIS50060F05, 197725130, 197725140, 197725150, or 197725160. or CP flat top p/n BC1021-030W, BC1021-035W, BC1021-040W, BC1021-0345W, BC1021-060W. Must use the wrist pin that comes with the piston package. Must use 1.5, 1.5, 3mm ring sets. No ring spacers allowed. No tapered piston rings allowed. No gas ported piston rings allowed.
3. Steel oil pan with inspection hole.
4. No lightening of any internal or external engine parts including block.
5. Edelbrock intake P/N 2701.
6. 4 barrel carb or same carb as GM crate engine. Must use Holley-style straight-leg or down-leg booster carburetors only.
7. Spec 1" carburetor spacer mandatory: Speedway Motors P/N 135-1960. There can be a maximum of 3/8" total gasket material between intake and carburetor.

8. Any hydraulic cam, maximum .450 valve lift. No hydraulic roller cams allowed.
9. Stock diameter steel lifters. Lifters must collapse a minimum of .100”.
10. EQ-CH350I heads untouched. Valve size 1.94 intake 1.50 exhaust valve stem 11/32.
11. No hollow or titanium valves.
12. Minimum valve weight: intake 103 grams exhaust 87 grams .
13. Stock steel valve spring retainers. Stock diameter valve springs only. No beehive/ conical valve springs allowed.
14. Stock stamped steel rockers 1.5 ratio.
15. Maximum compression 9.5:1.
16. Current Street Stock and Midwest Modified ignition.
17. MSD soft touch box P/N 8728 or MSD P/N 8727CT only. Ground must be within 4 inches of the box.
18. Maximum RPM 6200 limit.
19. Stock exhaust manifold or headers.
20. Gas only up to 12% ethanol, no other oxygenates. No other oxygenated fuel CHP.
21. Must follow all other WISSOTA Street Stock rules.

#### GM 602 Street Stock Sealed Crate Engine

1. Four barrel gas carburetor allowed. No floatless carburetors allowed. Must use Holley- style straight-leg or down-leg booster carburetors only.
2. Spec 1” carburetor spacer mandatory: Speedway Motors P/N 135-1960. There can be a maximum of 3/8” total gasket material between intake and carburetor.

3. Mandatory MSD soft touch box P/N 8728 or P/N 8727 CT. Ground must be within 4 inches of the box.
4. Maximum 6200 RPM limit.
5. Must use the same exhaust as all other WISSOTA Street Stock engine combinations.
6. Minimum weight 3200 lbs. with driver after race.
7. Gas only, up to 12 percent ethanol. No other oxygenates, no other oxygenated fuel, CHP.
8. Must follow all other WISSOTA Street Stock rules.

All engine options subject to review/changes as deemed necessary. If rules do not specifically say you can have said part, it means you cannot have said part or alterations to said part.

### **ASPIRATION AND FUEL**

1. Carburetion will be limited to one (1) stock Holley 500 CFM 2- barrel, part no. 4412, with a 1-11/16-inch throttle bore. Holley aluminum 4412 carburetor allowed. Casting number L6R1998, main body number R4412-14 or R4412-15. Cannot remove air horn. Must meet all 4412-500 CFM tech tool measurements. No grinding or polishing of any kind allowed. No floatless carburetors allowed. All Street Stock carburetors must use Holley-style straight-leg or down-leg boosters only. All carburetor components must be for a 500 Holley. Adjustable, changeable air bleeds allowed. No milling or grinding of the throttle shaft allowed. Shaft must stay round. Choke can be removed but NOT the air horn. Must have stock measurements. Addition of foreign material to the carburetor is not allowed for any reason. Examples include but are not limited to glue, epoxy, silicone, etc. Linkage may be welded to the end of the throttle shaft.
2. Adapter plate for open compression engine: may use a one inch open 4-barrel spacer with a one inch high performance 2-barrel spacer on top of it. Spacer may be tapered. A total of 1/2" of maximum total gaskets may be used between intake and carburetor. 1. Devices below the carburetor designed to increase the flow of air are not permitted. No devices can be added to the inside of the intake to increase or redirect airflow. 2. All air entering the engine will be required to enter through the top of the carburetor.
3. Fuel: race fuel is allowed. May use up to E-98 Ethanol. May make changes to the carb to enable the use of ethanol, including removable air bleeds.
4. No electric fuel pumps allowed. No belt-driven fuel pumps allowed.

5. Carburetor must be mounted with a float bowl forward. Carburetor must have a stock 4412 bodied carburetor only. No aftermarket or billet metering block allowed. No piston type fuel pumps allowed. Must be stock diaphragm type.

6. No oxygenated fuel allowed in any engine option other than ethanol as described in the rules for that specific engine option.

#### **ALUMINUM**

1. No aluminum or exotic metal suspension, body or drive train parts allowed. Aluminum radiators allowed. Aluminum pumps, pulleys and brackets in engine compartment are allowed

**DISPLAY OF ENGINE TYPE** All weight must be painted on the upper portion of both front fenders or both front window posts. If weight is changed you may tape over for that event. You must also display the engine type you are using (examples: Spec, Concept, Crate) on both front window posts.

#### **GENERAL**

1. Recommend cars to have two operable coloured lights clearly visible from the rear of the car. No white lights.

2. Cars must be clearly visible on and off the track. The use of bright colours and graphics are greatly encouraged.

3. The car number is the property of the car owner. Points are awarded to the car number and are not transferable. Cars must have one number on each side of the car, minimum of 18" high, one number on the roof, minimum of 18" high (facing the flagstand) and one number clearly visible from the front and the rear, minimum of 6" high. Maximum three digits.

4. Removal of identifying marks. Any grinding, de-facing or otherwise removing or obliterating casting marks, casting numbers on an engine or chassis part, or any unreadable number, will automatically render that part illegal.

#### **SAFETY**

Minimum safety requirements of Borderland Racing Association are to be followed by safety rules according to the current WISSOTA rule book. Which includes helmets, seat belts, suits, exhaust systems, fuel cells, batteries, loose objects, etc..

If Street Stock is classified as Wisconsin or any other sanction, street stock is able to run within their sanction rules, as long as they are not a regular car/driver and rules are not too far out from Wisconsin or Emo / Thunder Bay street stocks rules. It is strongly encouraged to call Emo Speedway if there are questions or concerns.