

# 2024 RULES AND REGULATIONS

## SPORTSMAN DIVISION

Saskatoon Stock Car Racing Association  
(S.S.C.R.A)  
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Effective January 2024

## **MISSION STATEMENT:**

*“To provide members a motor sports and entertainment facility to showcase their talents and abilities, while providing our fans, corporate partners, sponsors and media a valuable entertainment experience.”*

## **RULEBOOK DISCLAIMER**

The rules and/or regulations set forth in this book are designed to provide for 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 participating in these events, all participants are deemed to have complied with these rules. NO EXPRESSED OR IMPLIED WARRANTY OR SAFETY SHALL RESULT FROM THE 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.

The Competition Director together with Competition Committee, on behalf of S.S.C.R.A., shall be empowered to permit minor deviation from any of the specifications herein or impose any further restrictions that in their 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(s) from these rules shall be left to the discretion of the officials. Their decision is final.

*Saskatoon Stock Car Racing Association*

(S.S.C.R.A.)

**Lines highlighted in RED are rules that have been removed.**

**Lines highlighted in YELLOW are rules that have been added this year.**

## Table of Contents

CODE OF ETHICS .....	4
RACE DAY PROCEDURES .....	5
2023 Sportsman Rules .....	7
1. Build Guidelines .....	8
2. Body .....	8
4. Frame .....	9
5. Roll Cage .....	9
6. Interior .....	10
7. Suspension .....	11
8. Steering .....	12
9. Fuel System .....	12
10. Engine .....	12
11. Engine and Driveline Components .....	14
12. Carburetor .....	17
13. Air Intake .....	18
14. Exhaust .....	18
15. Cooling System .....	19
16. Electrical .....	19
17. Transmission .....	19
18. Driveshaft .....	20
19. Differential .....	20
20. Brakes .....	20
21. Wheels and Tires .....	21
22. Weights and Balance .....	21
23. Ballast .....	21
24. Safety .....	22
25. Electronics .....	22
Diagrams .....	23

# CODE OF ETHICS

## Purpose

To act in a professional manner so as to bring a positive image to the public and fellow members of the sport of stock car racing and to realize the need for a reasonable and responsible personal code of 'unwritten laws' since laws cannot cover all situations.

## Expectations

1. Respect **MUST** be had for all traffic laws and criminal codes, such as not drinking and driving.
2. No alcohol, drugs, or stimulants allowed in association with your car or team when in the public eye.
3. No verbal or physical abuse towards any person when connected with a stock car event, display or promotion.
4. When dealing with the public, courtesy and cooperation should be shown to promote the sport in a positive light at all times. For example, do not approach another person's sponsor(s).
5. All members should be clean and presentable when in any public situation.

## Definition of Behavior

Anyone who, by word or deed, impedes, jeopardizes, or in any manner hinders the smooth and orderly presentation of the racing program - or - anyone who commits, or causes to be committed, any detriments to stock car racing, the S.S.C.R.A. will consider that person(s) to have abused the privileges of membership, entry and/or admission granted by the S.S.C.R.A. and that they may be subject to the revoking of those privileges and/or disqualification as deemed proper by the Executive or designated official. Drivers are responsible for the sportsmanlike conduct of anyone in their crew and penalties incurred by a crewmember may affect the driver.

# **RACE DAY PROCEDURES**

## **Policies and Statements as Related to Competition:**

1. These rules are designed with the intent to create fair competition. However, interpretation may require alterations of the written rule to clarify the intended. S.S.C.R.A. Officials have the right to make minor amendments to the rules as required for clarification in the interest of safety and fair competition.
2. Protest Procedure: Any infraction requiring protest **MUST** be acknowledged in writing and submitted to the Race/Technical Director within 15 minutes of the completion of the main/feature event.

## **Non-Competition Items that have to be corrected for the next race meet.**

1. Roll Cage.
2. Chassis (non-competitive modifications).
3. Any item on a car that isn't perceived to give a competitive advantage.

## **Competition Related Technical Procedures**

### **Pre-Race Inspection**

#### **Items inspected at this time without driver:**

1. Safety Equipment.
2. Tires
3. Wheel base dimensions.
4. Rear spoiler.
5. Engine set back, and center line location
6. Crate engine seals.

#### **Inspected with driver in car and full of fuel**

1. Weights and percentages.

#### **Inspected with frame at 4”:**

1. Roof height, skirt height, nose height.
2. Fuel cell to ground clearance.
3. Crankshaft center height.

#### **During competition drivers may receive mechanical disqualification for the following. (Drivers must return to pit area and make repairs prior to re-entering race.)**

1. Insufficient clearance to prevent dragging of body and frame parts. (No sparks or grinding noises.)
2. Leaking fuel or any liquids
3. Excessive smoking
4. Exhaust backfiring onto fuel cell
5. Lack of or improper use of any required safety equipment
6. Anything deemed to be unsafe. (Determined by race officials)

### **Post-Race inspection**

1. Weights and Percentages with driver in the seat and both hands on the steering wheel with helmet. Weighed full of fuel
2. Carburetors
3. Shocks
4. Clutch
5. Transmission
6. Suspension
7. Engine seals and rocker arms
8. Rear end

### **NOTE:**

1. Top 5 **MUST** go to tech line or disqualification will be automatic.
2. Anyone waved to tech line after race, **MUST** go directly to the tech area, or disqualification will be automatic.

## **2023 Sportsman Rules**

**The Sportsman Division is based upon a perimeter style race car chassis. It incorporates fibreglass body styles modeled after the NASCAR Canadian Tire Series which were meant to closely resembling production cars.**

**The rules in this document MUST be used in combination with Saskatoon Stock Car Racing Association 'General Safety Rules and General Rules'. Any variations are subject to approval of the technical committee. Any violations found are to be corrected by next race meet. Further disciplinary actions are to be determined by the competition committee when warranted.**

**2023 Ontario Super Stock cars may compete with the following exceptions:**

- **Cars must follow the 2023 Ontario Super Stock weight rules**
- **Must weigh a minimum of 3100lbs**
- **All cars must be inspected prior to being accepted for competition**

## 1. **Build Guidelines**

The Sportsman cars are based upon a perimeter style chassis with production lower A-arm layout. It incorporates non wedge fibreglass body styles closely resembling production intended make and model.

## 2. **Body**

- a) Open to Performance Fiberglass, AR Bodies, Ultimate Fiberglass, Fivestar Bodies Sportsman body styles. All cars must be 107.5" wheelbase. Bodies **MUST** closely resemble the intended make/model. (No wedge or ABC bodies). No mixing of types of bodies or panels. In the interest of keeping the division marketable to sponsors, new looking or new body styles are highly recommended.
- b) A minimum roof height of 49" required. Car height will be determined by measuring overall height of car from a distance of 10 inches behind the top of the windshield on the roof centerline based on 4" frame height.
- c) All body panels must remain stock in dimensions and contour. The top of the fender and hood line cannot be altered on front or rear. Bodies may not be moved forward, backward or sideways in coordination with the wheels. Removal of body material is not allowed (i.e. front spoiler and fender openings).
- d) Body cannot be lower than frame rail.
- e) Wheelbase must not differ more than ½ inch from one side to the other.
- f) Track width (front) 77 inches maximum, measured from outside to outside of tire sidewall measured at spindle height at 30 lbs. of air pressure.
- g) Rear track width is not to exceed front track width.
- h) No jacking posts are to protrude through door or rocker sill.
- i) Tires must stay inside fenders. No add on flares, fins or skirts are permitted.
- j) Rocker panels must follow original contour of body. No flaring or skirting to extend lower than rocker panel. Must not be lower than frame rails.
- k) Full stock appearing hood must be retained. No air scoops are allowed. Hood must have a minimum of (3) evenly spaced hood pins across the front and (2) hinges or (2) pins at the rear. Rear deck lids must have (2) pins and (2) hinges or (4) pins. Lanyards or cable on hood pins highly suggested.
- l) Original Performance Fiberglass integral spoilers or 5"x60" Lexan. No mounting of hardware forward.
- m) Rear window must be original size dimension and angle. Minimum of two rear window metal straps 1/8 inch by one inch must secure window in place. Straps must be fastened to the roof and rear deck panel. Only three jacking bolt holes and four air relief holes allowed. Air relief holes are permitted only in the lower ¼ of window area. All holes not to exceed two inches in diameter. Lexan material mandatory, minimum of 1/16 inch thickness. Must be clear of tint.
- n) (Opera and rear door where applicable) are mandatory. Lexan material mandatory, minimum thickness of 1/16 inch. Front Doors: No window allowed.



3. Lexan windshield, minimum thickness of 1/8 inch may be used. Windshield angle, contour and size must correspond to stock dimensions. Minimum of two interior metal support beams no more than one inch wide and one inch deep to follow contour of inside of windshield are mandatory. **Tow Straps and Rub Rails**

- a) Tow straps are mandatory, two on the front and two on rear of each car.

#### 4. **Frame**

- a) A North American factory production front stub fabricated front frame which incorporates lower and upper control arms in its design must be used. Body style does not have to match front stub section.

- b) Fabricated 2"x4"x1/8" wall heavy "Cascar" front clip may be used.

- c) Upper control arm brackets may be re-positioned and reinforced.

- d) All other mounting brackets must remain in approved locations. Refer to page 20 for location. Vertical tolerance of +/- 1" is allowed. Refer to page 21 for horizontal locations. Tolerance is +/- 1/4".

- e) Reinforcing of brackets is allowed.

- f) Frame from front firewall rearward may be fabricated from no less than 2" x 3" by .095 inch thick box tubing.

- g) Frame design over rear axle.

- h) Maximum fabricated chassis width 56 inches.

- i) Frame rails must be equal distance from centerline of car.

- j) No offset will be permitted in chassis or roll cage.

- k) Front cross member may be modified in the immediate oil pan area.

- l) Spring adjuster (load bolts) may be incorporated in chassis.

- m) All component parts rearward of the rear axle housing (i.e. frame, weight box, fuel cell container and rear fuel cell guard) shall be no lower than 10 inches measured from the ground with chassis at four inches.

- n) Excluded are shock mount brackets and pan hard bar brackets.

- o) Bumper bars to be fabricated of steel only.

#### 5. **Roll Cage**

- a) Main roll cage surrounding driver and bars extending forward and rearward from main roll cage must be constructed of no less than 1.75" x 0.095" wall tubing.

- b) Front and rear roll bars must be connected at top and bottom at both sides at seat height.

- c) Main roll cage loop may not exceed three inches inward from interior sheet metal door panels, side windows and upper windshield contour.

- d) Angle of rear hoop bar 15 degrees maximum from vertical. If over, then a 1/4 inch by eight inch solid steel plate (no holes) must be welded front to back over drivers head.

- e) Front window bars may not exceed three inches inward from windshield post.

- f) As of January 2015, all NEW cars being built must include the Earnhardt bar (a vertical bar that extends from the horizontal dash bar to the halo. Or may be installed on top of the engine bay bracing and must be supported to prevent collapse from impact on rollover). This bar must be centered left to right on the chassis and be constructed of 1.75" x 0.095" tubing.
- g) Roof hoop must follow the contour of car as close as possible.
- h) Minimum of four bars on left side (must extend into door panel) and three bars on right side (must extend into door panel), gussets optional.
- i) Roll cages having door bars longer than 49 inches must have an "X" above the driver's compartment of 1.75" x 0.095 inch wall tubing.
- j) The maximum window opening measured from top door bar to roof hoop may not exceed 20 inches.
- k) Vent bar to rear roll cage upright 35 inches maximum (mandatory on both sides).
- l) Roll bars in driver's area must be padded and taped with foam rubber.
- m) No square tubing, channel or angle bracing.
- n) No exterior bars permitted.
- o) The entire driver's door area, which includes the area from the "A" pillar post to the "B" pillar post and from the top door bar to the frame, must be filled with 1/8<sup>th</sup> inch steel plate. Pieces **MUST** be securely welded on the outside & overlap the door bars for all new builds; 2014 and older will be grandfathered in.
- p) A 1/8<sup>th</sup> steel plate must extend forward of main cage to protect driver's foot area.

## 6. Interior

- a) Interior of car can only be constructed of minimum 20 gauge steel (0.029 to 0.035 inches).
- b) Interior to be stitched welded other than dash and miscellaneous covers, i.e. transmission cover.
- c) Car must have a fabricated full dash from left to right.
- d) No part of the dash shall continue to the floor panel.
- e) Firewall must be of no less than 20 gauge steel and extend completely from left to right with a minimum of five inches high.
- f) Increased driver protection in the foot box area recommended.
- g) Passenger floor may be constructed from the top of the drive shaft tunnel and go horizontally to the right to the inside of the passenger front and rear main hoop cage tubes.
- h) The remaining gap to the door can be filled with a vertical panel going up to the top of the door and be attached to the door with a filler piece across to the right side.
- i) Maximum drive shaft tunnel height is 12 inches from the top of the frame.
- j) **Approved aluminum seat** mounted to the roll cage, left of the centerline of the car and to the right of the left frame rail. See mounting diagrams C1, C2, C3, C4, C5 and 5B General Rules. Padded headrest is mandatory. Leg extensions and full containment seats are suggested.

## 7. Suspension

- a) Aftermarket tubular steel control arms are allowed with stock appearing greasable ball joints. Cross shafts must be steel.
- b) Lower control arms may remain stock OEM type with modification allowed to accept larger ball joints.
- c) Left lower control arms may be modified to achieve desired camber.
- d) Lower control arms may be fabricated or aftermarket. Inner bushings may be replaced with solid steel bushings or steel spherical joints.
- e) All control arms and mounting hardware must be steel.
- f) Rear control arms are to be made from steel only. Must be of equal length and maximum of 30 inches from mounting hole centre to mounting hole centre. Right rear trailing arm can have a rubber dampening device or snubber.
- g) Steel solid rod ends, rubber bushing style or steel heim ends allowed.
- h) All hardware must be steel.
- i) One steel third link only.
  - i) Maximum length 30 inches. Rubber dampening allowed.
- j) Coil spring front suspension only. No bump stops or additional system apart from the approved shock and spring.
- k) Front coils may not measure less than 5 inches in diameter and rear coil springs may not measure less than 4.5 inches in diameter.
- l) Aftermarket coil springs allowed front and rear.
- m) Non-metallic spring spacers are allowed between coil windings.
- n) Rear suspension may be leaf or coil.
- o) Plastic or fiber leaf not allowed.
- p) 1 Piece or 3 piece splined front sway bars allowed.
- q) Panhard bars are optional and must be equipped with steel rod ends at the connecting points. They are mandatory on a 3 link rear suspension.
  - i) Must be fabricated from steel.
- r) Shocks may be relocated in chassis.
- s) Only one shock per corner permitted. No air shocks allowed.
- t) Steel body, non-adjustable, shocks only; Welded bearing only.
- u) No adjustable shocks of any kind. Examples of approved shocks: Monroe SSF and SSC, Pro W/B series, AFCO 1200 & 1400 series, Integra 4200 series, Carrera/QA1 20, 26, 55 & 59 Series
- v) Front hubs may be drilled for larger studs or relocated.
- w) Maximum bolt circle five inches by five inches.

- x) Only OEM or aftermarket steel hubs are allowed.
- y) Wheel stud thread must protrude completely through the wheel nut.

## 8. Steering

- a) Steering components, steering box and spindles (no aluminum) must be OEM type.
- b) Centre link to be OEM or aftermarket. Must incorporate an idler arm and a pitman arm in its design. No modification to spindles with exception of steering arm, brake and duct mounting. Ball joint location must be altered or enlarged.
- c) Steel steering arms only.
- d) Outer tie rod ends may be replaced with high quality steel rod ends. Inner tie rod end must be OEM type equivalent.
- e) Tie rod assemblies must be all steel.
- f) No rack and pinion steering allowed.
- g) Steering column MUST be collapsible. May use sliding section or multiple U-joints to prevent rearward movement of steering column in the event of severe frontal impact. Quick release wheel mandatory, with padded center.

## 9. Fuel System

- a) A fuel cell is mandatory.
- b) 22 U.S. gallons maximum size allowed.
- c) Fuel cell is to be mounted in the trunk area behind the firewall between the frame rails and no lower than 10 inches from the ground.
- d) Fuel cell must be complete with foam and check vent assembly.
- e) A minimum of 20 gauge steel is to be used for fuel cell case.
- f) All fuel cells must be grounded.
- g) Fuel caps MUST be tethered.
- h) A neoprene or steel gas line may be used and must be securely fastened under floor.
- i) No copper lines. No plastic filters.
- j) Remote filler securely mounted under the deck lid; optional.
- k) If fuel line runs through the driver's compartment it must run through a steel tube.
- l) **Fuel:** Only pump fuel available at local consumer outlets with a maximum octane rating of 94 is allowed. No additives, oxygenation, aviation fuel or race fuel.
- m) Only pump fuel available at your local consumer outlets will be permitted. No oxygenation, aviation fuel or race fuel will be permitted. Octane boost is permitted.

## 10. Engine

- a) **Fuel pump:** Stock mechanical pump only. Absolutely no electric fuel pumps. No glass or plastic fuel filters allowed. No "Cool Cans".

- b) **Distributor:** Only stock type distributor and stock type coil allowed. Crane Cams Ignition System Part # 6000-6463 ASA-LMS or MSD 6 Series with a 6300 rpm rev limiting chip is mandatory for all competitors, stock ignition and rev limiter allowed. Rev limiter used must allow for technical inspection. Maximum rpm is 6300 for all systems used.
- c) Only one ignition box may be used per car.
- d) Ignition control module boxes and associated wiring must be mounted to the right side of the driver clearly visible for inspection.
- e) Harmonic Balancers: Any harmonic balancer may be used (e.g. 6 ¼" fluid dampers or ATI permitted).
- f) **Oil Filter:** Any single production type oil filter may be used. It may be remotely mounted, but **MUST** be located in the engine compartment.
- g) Engine Location: Engine location will be measured from the centre line of the rear axle assembly to the back of the engine block. Location is based on engine used not body style.

Wheelbase	Make	Engine Location
107.5 inches	GM	88.0 inches minimum
107.5 inches	Dodge and Ford	87.0 inches minimum

- h) Engine height minimum 11.5 inches measured from the ground to the centerline of the crankshaft with frame set at four inches. The centre of the crankshaft must be within ½ inch of the centerline of the chassis.

**Engine Packages:**

Option I

**Open Engine**

- i) Interchange of engines between makes allowed. Marine parts are not permitted.
- ii) **Engine Block:** **MUST** be a cast iron OEM block with exception of permissible overbore. An OEM lifter bore **MUST** be maintained. De-burring of block and parts permitted. Block **MUST** maintain +0.015" deck height (GM).

iii) Make	Max Overbore	Max CID	Head CC
GM 305	0.060"	315 cid	58cc
GM 327	0.060"	334 cid	64cc
GM 350	0.060"	360 cid	67cc
Dodge 360	0.060"	370 cid	64cc
Ford 302	0.060"	307 cid	54cc
Ford 351w	0.060"	362 cid	57cc w/-13 cc dished piston
Ford 351w	0.060"	362 cid	64cc w/ flat top piston
Ford 351c	0.060"	362 cid	64cc

Indy 360 LA-X                      0.060"                      62cc w/ 18cc dished piston

- iv) **Crankshaft:** **MUST** be OEM. Aftermarket cast steel crankshaft allowed. **MUST** weigh within 3% of OEM crankshaft (OEM weights GM – 51 lbs., Dodge – 56 lbs., Ford 351 Windsor – 56 lbs., Ford 302 – 38 lbs. Ford Cleveland - 55.8 lbs.). Absolutely no aftermarket forged, race type or exotic crankshafts allowed.
- v) **Connecting Rods:** Aftermarket connecting rods allowed. Deburring of stock rods is permissible. Stock rod length to the OEM block being used.
- vi) **Pistons:** Flat top or dished only, weighing a minimum of 1,200 g each with the wristpin, rings, connecting rods and bearings. All pistons **MUST** have two (2) compression rings and an oil ring.
- vii) **Camshaft:** Flat tappet Solid or Hydraulic cam and lifters only. No roller lifters allowed. Stock OEM style push rods. Roller rockers are permitted ratio 1.6 max. NO gear drive or belt drive.
- viii) **Cylinder Heads:** Only stock cast iron OEM castings permitted or the following stock replacement heads: **GM** - Dart 10024361 or 10024361A, World Products 043600-S/R (76cc), 043610-S/R (67cc), 042650-S/R, 87 and newer 042750-S/R (58cc). **Ford** - World Products Windsor JR. 053030 (58cc), **Dodge** – 360-LAX cylinder head allowed. If used, the pistons, must have a minimum of an 18.0 cc dish. Absolutely no deburring, grinding or polishing of intake or exhaust ports permitted. Chevrolet engines are restricted to 1.94" intake valve diameter and 1½" exhaust valve diameter. Guide plates are permitted. The maximum Chevrolet valve spring diameter permitted is 1.460". Composition head gaskets of no less than .026" compressed thickness for Chevrolet only. All other makes is .039" Chevrolet Vortec. Chevrolet Vortec and Dodge Magnum allowed. 350 Chevrolet Vortec engines must run no less than 0.039" head gasket. Early Ford GT-40 or 4bbl Cleveland not allowed. Non-metallic valve train parts not allowed.
- ix) **Oil pan:** Any steel wet sump oil pan. Oil filter **MUST** be OEM style for block and mount in OEM location.
- x) **Intake Manifold:** Only stock OEM cast iron 2BBL intakes or Edelbrock RPM Performer dual plane high rise aluminum intake (GM - #7101, Ford 351-W - #7181, Ford 302-W - #7121, Ford 351-C #2750 Performer, Chrysler - #7176) or Weiand Products dual plane high rise aluminum intake (GM – Stealth #8150, Ford 351-W - Stealth #8023, Ford 302 – Stealth #8020, Chrysler – Stealth #8022) allowed. GM Vortec engines are permitted to use the GM PP602 crate engine manifold. No grinding or coating of any kind permitted, internally or externally.

## Option II (Previous Western Elite Stock Car Package)

### 11. Engine and Driveline Components

1. All carburetors must pass technical inspection both visually and with No-Go tools at race time. Failure to conform will result in suspension of the car/driver and seizure of offending parts.
2. **Cylinder Heads:** Only stock O.E.M. cast iron heads allowed. No titanium valves permitted. Three angle valve jobs are permitted. When cutting the valve seat angles, no stone or grinding marks are permitted above the bottom of the valve guide. All cutting in reference to the valve job must be centered from the center of the valve guide. Upon

completion of the valve job, the bowl area above the valve seat up to the bottom of the valve guide should still be the same configuration as far as shape and finish as it was from the manufacturer. Surfaces and/or edges where the cutter or stone has touched must not be polished. No hand grinding or polishing is permitted on any part of the head except gasket and port aligning allowed ½ inch maximum on intake port. Stock production retainers only. No aluminum or titanium allowed. Pinning or screw in studs permitted. Stock location of rocker studs must be retained. Locking rocker arm adjusters allowed. No acid porting or re-contouring (adding material) of ports permitted. Intake gasket maximum .135 inch thickness per side. Stock casting number must be retained.

3. **Cylinder Heads:** Part #P5007140 cylinder head may be used in 340 CID and 360 CID applications. Must retain minimum combustion chamber volume 60 cc. Valve sizes must be intake maximum 1.92 inches, exhaust 1.625 inches, intake port 180 cc maximum. Fastener holes for intake manifold must be relocated to accept cast iron 2 barrel carburetor intake manifold without modifying the intake manifold.
4. **Fuel Pump:** Stock mechanical pump only. Absolutely no electric fuel pumps. No plastic or glass fuel filters allowed.
5. **Intake Manifold:**
6. **Option A:** Only cast iron stock production two barrel intake manifolds allowed. Intake must be readily available through new car dealer network. e.g. GM intake manifold with casting #14088675 is not readily available, therefore it is not allowed.
7. **Option B:** Chevrolet engines may use Edelbrock part #7101 or #7116. Dodge engines may use Edelbrock part #7176 or Mopar #P4876335 or P5007381. Ford engines may use Edelbrock part #7181.
8. **Intake Manifold:** No grinding or coating of any type permitted internally or externally. Gasket and port aligning allowed within ½ inch of openings. Two adjacent intake bolts on each side of manifold may be drilled for sealing.
9. **Oil Pan and Lubrication:** Any oil is permissible. Oil pressure may be regulated. Wet sump systems only. No external reservoir tanks permitted. Modifying of oil pan for greater volume of oil permitted. Any approved oil filters and breather caps may be used. Remote oil filters permitted. Oil coolers must be forward of firewall.

\*\*Below is moved to section 16 – Transmissions and 17 – Drive Train\*\*

### Specific Engine Specifications

1. **Chevrolet 350 Engine:**
2. **Block:** Stock O.E.M. block as used in production vehicle. Maximum .0 inch piston to block deck height clearance.
3. **Crankshaft:** Stock O.E.M. production or GM part #3941184 or EAGLE part #435034805700 steel crankshaft permitted only. Excessive modifications like drilling, grinding or reshaping will not be permitted. Heat treating is permissible. Crankshaft must weigh within 5% of factory weight. Crankshaft may be removed for inspection. (Stock weight 51 lbs).
4. **Cylinder Heads:** No angle plug heads allowed. Minimum cylinder head chamber volume is 64 cc. A composition gasket of no less than .039 compressed thickness must be retained. Maximum valve spring diameter 1.460 inches. Maximum intake valve size 1.94

inches. Maximum exhaust valve size 1.50 inches. Guide plates allowed. Maximum intake runner volume 176 cc.

5. **Rods:** Standard production or GM pink rod or GM bow-tie rods of 5.70 inch length permitted. Polishing of rod beams acceptable. Rod bolts optional. Manley part #14101C or Eagle Part #CRS5700B3D of 5.7 inch length may be used. Manley rods must retain identification on rod side beam and may not be altered in any way.
6. **Oiling System:** Internal oil pump only.
7. **Pistons:** Only O.E.M. or approved flat top pistons allowed. Parts that cross reference must be duplicate to original part (e.g. weight of piston, piston ring land, distance of piston skirt, position of pin). Floating or press pin optional. Minimum standard bore piston weight without pin and rings is 425 grams.

### **Dodge 340 and 360 Engines:**

1. **Block (360 CID):** O.E.M block only as used in production vehicle. Piston deck height with minimum 58 cc head volume may not be less than .020 inch from top of block. Piston deck height with minimum 64 cc head volume may not be less than .0 inch from top of block. Minimum head gasket thickness for any application is .039 inch.
2. **Block (340 CID):** O.E.M. type block only as used in production vehicle. Piston deck height with minimum 58 cc head volume may not be more than .020 inch above top of block. Minimum head gasket thickness may not be less than .052 inch for this application.
3. **Crankshaft:** Stock O.E.M. production. Heat treating is permissible. Crankshaft must weigh within 5% of factory weight. (Stock weight 56 lbs).
4. **Cylinder Heads:** W-2 heads not allowed. Minimum 58 cc combustion chamber volume. Maximum 177 cc intake runner volume. Maximum intake valve size 2.02 inches. Maximum exhaust valve size 1.60 inches. Part #P5007140 cylinder head may be used in 340 CID or 360 CID application. Must retain minimum combustion chamber volume 60 cc. Valve sizes must be intake maximum 1.92 inches, exhaust 1.625 inches maximum. Intake port 180 cc maximum. Fastener holes for intake manifold must be relocated to accept cast iron two barrel carburetor intake manifold without modifying the intake manifold.
5. **Rods:** O.E.M. standard production rods are permitted and must retain stock identification. Polishing of rod beams acceptable. Rod bolts optional. Manley rod part #14139C or EAGLE part #CRS6123C3D are approved. Manley rods must retain identification on rod side beam and must not be altered in any way.
6. **Oiling System:** Internal oil pump only.
7. **Pistons (360 CID):** O.E.M. or cross reference to original equipment. Pistons must duplicate original equipment, position of ring land, distance of skirt, position of pin. Press or floating pin is optional. Flat top only part #P4007042 is acceptable. 4 cc minimum valve relief.
8. **Pistons (340 CID):** O.E.M. or cross reference to original equipment. Pistons must duplicate original equipment, position of ring land, distance of skirt, position of pin. Press or floating pin is optional. Flat top only part #P3690825 is acceptable. 4 cc minimum valve relief.



## **Ford:**

1. **Block:** O.E.M. block only as used in production vehicles or SVO part #M6010-A351-9.5 deck (production style block). Maximum .0 inch deck height to piston.
2. **Crankshaft:** Stock O.E.M. production or SVO crank part #M6303-D351 when used with Federal Mogel bearing spacer kit part #145M and bearing set 144M. Heat treating permitted. Crankshaft must weigh within 5% of factory weight. (Stock weight 58 lbs).
3. **Cylinder Heads:** World Products Windsor Jr. part #053030 heads accepted. Intake runner volume 180 cc maximum. All other specifications as follows: Maximum intake valve size 1.94 inches. Maximum exhaust valve size is 1.90 inches. Combustion chamber volume 60 cc minimum. Intake runner volume 175 cc maximum. Minimum .039 inch head gasket thickness.
4. **Rods:** O.E.M. standard production rods are permitted and must retain stock identification. Polishing of rod beams acceptable. Rod bolts optional. Manley rod part #14138C or EAGLE part #CRS5956F3D are approved. Manley rods must retain identification on rod side beam and must not be altered in any way.
5. **Oiling System:** Wet sump internal oil pump or single stage oil pump permitted.
6. **Pistons:** O.E.M. or cross reference to original equipment. Piston must duplicate original equipment in position of ring land, distance of piston skirt, position of pin. Press or floating pin is optional. Flat top or reverse dome pistons only. TRW #L2442 with dome removed is acceptable.

## Option III (Crate Engine)

### **Sealed Crate Engine:**

1. GM sealed Late Model Circle Track Engine P/N 88958604, P/N 19318604, P/N 88958602 or P/N 19258602.
2. **Ford** Blue Print Engine #BP3472CT allowed. Engine must be dyno tested on a local approved engine dyno. A member of the Competition committee must be present to verify complying engine specs. The engine will then be sealed before leaving the dyno facility.
3. Any engine seal, which is altered or tampered with in any way from the original purchase, will be deemed illegal. The ONLY changes that will be permitted are as follows:
4. Rocker Arm ratio of 1.5:1 and valve springs must be stock. Valve spring upgrade kit P/N 19300952 for 604 engine only. For 602 engine only, 0.030 shim under valve spring allowed.
5. Ignition System: Stock type HEI and MSD distributors will be allowed. No magnetos. Rev limiter mandatory.
6. All crate engines must be registered with SSCRA; please see General Rules for Crate Engine Registration form.

## **12. Carburetor**

- a) **Open Motor** - Holley 500 CFM P/N 0-4412, Quick Fuel 4412 500 CFM 2 bbl allowed or Holley 500 CFM P/N 0-80583-1
- b) **602 GM Crate Motor and Ford 347 Crate Motor** - Holley 650 CFM, 4150 HP series, P/N 0-80541-1. Holley 650 CFM, P/N 4777. Holley 500 CFM, P/N 0-4412. Quick Fuel 4412 500 CFM 2 bbl. Holley 500 CFM P/N 0-80583-1 allowed. Maximum of one 1" adapter or spacer allowed.
- c) **604 GM Crate Motor** – Holley 500 CFM. P/N 0-4412. Quick Fuel 4412 500 CFM 2 bbl allowed. Holley 500 CFM P/N 0-80583-1
- d) All engines will be allowed to install an adapter plate to adapt a 2 barrel carburetor to a 4 barrel intake manifold. Maximum thickness 1.125". Gasket to be a maximum thickness of 0.1562".
- e) Jets and power valve may be changed.
- f) Two throttle return springs are mandatory.
- g) Air cleaner box must mount directly to carburetor.
- h) No spacers.
- i) Stock mechanical pump only. Absolutely no electric fuel pumps.
- j) No plastic or glass fuel filters allowed.
- k) No removal of choke tower.
- l) Removal of choke parts and changing of jets and power valve is allowed. Accelerator pump cam and nozzles may be changed. No other modifications or alterations to main body, throttle shafts, or plates.
- m) Metering blocks must be cast only, non-adjustable emulsion holes.
- n) No billet carburetor parts allowed.

### 13. Air Intake

- a) Aftermarket drop type air cleaner base may be used to allow hood closing clearance.
- b) Cold air induction is permitted.
- c) **R2CAC1851059 air cleaner base allowed.**

### 14. Exhaust

- a) Headers optional.
- b) Under chassis or crossover headers allowed.
- c) 180 degree type headers prohibited (primary tubes crossing over to opposite collector).
- d) Maximum primary tube size of 1-3/4 inches and maximum three inch collector allowed.
- e) Only one maximum three inch balance tube between the right and left header system is allowed.
- f) Collector tubes must run separately into each muffler used.
- g) There must be two separate three inch pipes exiting the muffler system.

- h) Exhaust system must exit behind the driver straight back or exit out right side of the car in front of rear wheels.
- i) Exhaust pipe exiting out the right side of race car must be flush with the body and may not be more than eight inches to the top of the pipe measured from the ground with the frame height set at four inches.
- j) Exhaust may not exit body further forward than 28 inches from centre of rear axle.
- k) Mufflers are mandatory. A decibel reading of 98.

#### 15. Cooling System

- a) Radiator must remain stock in appearance and remain in standard position.
- b) Must include an overflow container with a minimum one liter capacity mounted ahead of firewall.
- c) **NO ANTIFREEZE! Water wetter allowed or substitute.**

#### 16. Electrical

- a) **Battery MUST have master kill switch.** Switch **MUST** be **centrally** mounted for ease of access by driver and safety crew. **MUST** kill motor and all power.
- b) **AGM batteries or dry cell REQUIRED. No Lithium batteries.**
- c) Battery **MUST** be located outside of the driver's compartment but within the wheelbase of the car. Battery **MUST be completely sealed from the driver's compartment** and accessible only from outside the vehicle. Battery fasteners **MUST** be 1/8"x1" steel strap or 3/8" rod minimum.
- d) **Starter MUST be operational** at all times.
- e) No electronic or traction control devices allowed.
- f) Starter must remain in stock location.

#### 17. Transmission

- a) Any stock type manual transmission of five speeds or less. All transmissions **MUST** have all gears working.
- b) Transmission adapter plates are not permitted.
- c) Stock type clutch disk, pressure plate and flywheel. 10" minimum diameter clutch disk is required. Flywheels must not weigh less than 13 lbs. Aluminum clutch parts and aluminum flywheels are not permitted. Pressure plates that incorporate an aluminum pressure ring with a magnetic steel or iron face are permitted.
- d) 7.25" aluminum two or three disk clutch allowed with stock diameter SFI flex plate.
- e) No lightening of flywheels.
- f) A scatter shield or minimum 1/8" thick steel plate, 180° safety shield or blanket mounted over the bell housing bolted to the floor is mandatory for manual transmissions. An aftermarket safety bell housing is recommended.
- g) Bellhousing: O.E.M. bellhousing or approved steel clutch housing permitted. Starter mounting position must remain same as on standard production bellhousing and be large

enough to permit inspection of flywheel and pressure plate. If original aluminum housing is used a ¼ inch minimum by six inch wide steel scatter shield that is positioned between the floor and bellhousing covering the top part of the housing, 180 degrees around, is required.

- h) Shifter: Conventional type shifter only (double rods not permitted). Only fire resistant shifter boots will be allowed. The shifter boots must meet the SFI 48.1 specification and display a valid SFI 48.1 label visible on the outside surface of the shifter boot. Quick release fasteners will not be permitted to secure the shifter boot. No aluminum allowed. The shifter boot, when installed, must be completely sealed to the floor of the car. Installation of the shifter boot must be acceptable to the technical inspectors.
- i) Traction Control: No electronic or otherwise traction control devices allowed.

#### 18. Driveshaft

- a) Driveline: Drive shaft and universal joints must be similar to standard production type. Steel, 360 degree retainer hoops, ¼ inch thick by two inches wide must be positioned at the front and rear of the drive shaft and within 12 inches of each universal joint. Aluminum or fiber drive shafts are prohibited. Front retainer loop must be circular and no more than six inches in diameter. Drive shaft must be painted white, with car number clearly marked on the shaft.

#### 19. Differential

- a) Rear axle ring and pinion may be any gear ratio.
- b) Differentials of OEM style are optional.
- c) OEM type carriers permitted only.
- d) Maximum bolt pattern is 5x5.
- e) Only all-steel rear end housing and carrier assemblies permitted (including hub, yoke, pinion and support and drive plate assembly).
- f) Rear differential housing must be centered in car.
- g) Steel aftermarket spools are permitted.
- h) Camber must be equal on both sides +/- 0.5 degree. Negative on right. Positive on left. Camber will be measured with digital level in vertical axis. Will be measured on sidewall of tire.
- i) No limited slip or positraction devices.
- j) Full floating axles suggested.

#### 20. Brakes

- a) Must have operational four wheel hydraulic brakes. OEM type steel single piston brake calipers required.
- b) Adjustable balance bar that is adjustable from the driver's seat is permitted.
- c) Brake pedal and caliper brackets must be mounted in a welded position.
- d) Aftermarket disc brake hats and rotors allowed (rotor thickness .810 inch minimum).
- e) Magnetic steel drilled or slotted rotors allowed.

- f) Rear brake proportioning valve (one only) allowed.

## 21. Wheels and Tires

- a) **American Racer P/N AR970 (864 compound) only.** No tire shaving or tire softening agents allowed. A total tire use rule will be implemented in 2023.
- b) Any mass produced steel racing wheel 15 inches in diameter and 8 inches in width, with a minimum weight of 19 pounds. Use of IMCA approved wheels recommended.
- c) Same offset wheels must be used from left side to right side, not necessarily from front to back. Older cars will be allowed to run up to 1 inch of offset left to right, these cars must demonstrate that they cannot achieve maximum left side weight at or below minimum weight and are not permitted to have added weight right of the car centerline.
- d) Maximum bolt circle 5x5.
- e) Spacers will be considered as part of wheel and measured as such.
- f) Wheel stud threads must protrude through the wheel nuts.
- g) Minimum wheel shell thickness is .125 inch.
- h) All tires must have their serial numbers registered on the declaration form prior to competing with any tire.
- i) Total allotment for the 2024 season is a maximum of 12 tires for the regular events based on participation.
- j) Teams that participate in the first schedule race event for that class will be allowed 6 tires on that day. Teams that fail to attend the first schedule race event will be allowed to use 4 tires at their first event. All teams will be allowed 1 additional tire for every regular race event that they participate in after that.
- k) 4 tires will be allotted for special events (teams MUST qualify and race on these tires during that event to make these tires eligible to be used in your 2024 tire allotment after that special event.)
- l) Tire cheating penalty: 30 points per tire.

## 22. Weights and Balance

- a) Total weight 3,000lbs with driver, for a 602 Crate and Ford 347 Crate. This will be the base weight for:
  - i) All chassis utilizing a stock front clip.
  - ii) Fabricated 2"x4"x1/8" wall heavy "Cascar" front clip.
- b) Total weight 3,050 with driver, for a 604 Crate or built engine.
- c) Left side of the car shall be no more than 57% of the total weight of the car.
- d) Competition Committee reserves the right to increase or decrease the weight of a race car to equal competition if necessary.

## 23. Ballast

- a) All ballast **MUST** be securely fastened; minimum of two, ½" bolts for every 12 inches of ballast.

- b) Ballast **MUST** painted white with the car number on it.
- c) All ballast must be mounted no lower than bottom side of frame rail.

#### 24. **Safety**

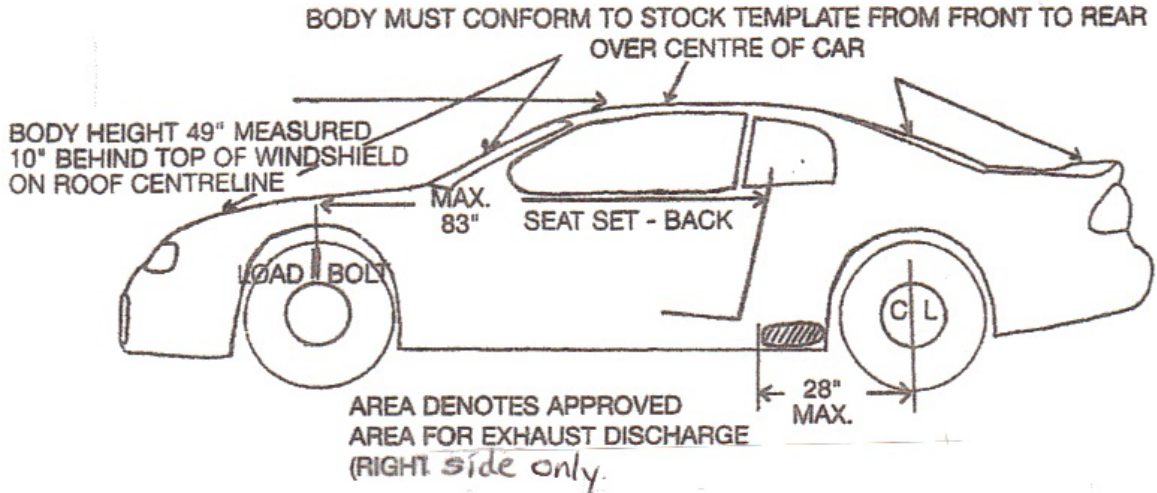
- a) **See General Safety Rules**

#### 25. **Electronics**

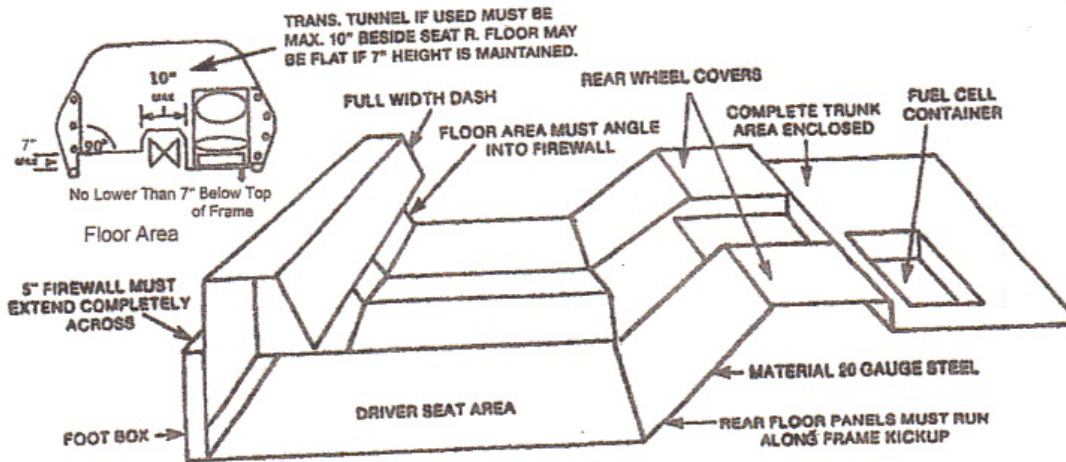
- a) No traction control.
- b) No electronic data logging. that records any driver performance or chassis dynamics.
- c) No go pros or sport cameras may be used to record any driver performance or chassis dynamics.
- d) Any exotic or unapproved electronics must be submitted for approval 30 days prior to use.
- e) Cell phone use must be approved prior to use.

# Diagrams

Western Elite Division

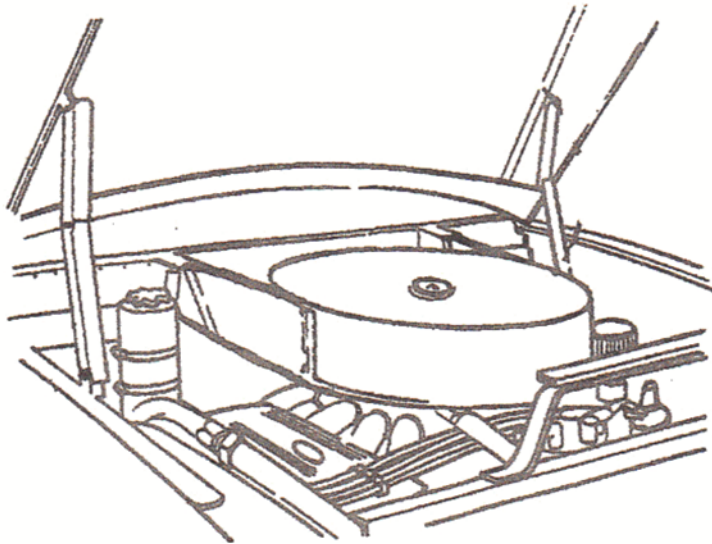


## Interior Detail (Must be totally enclosed)

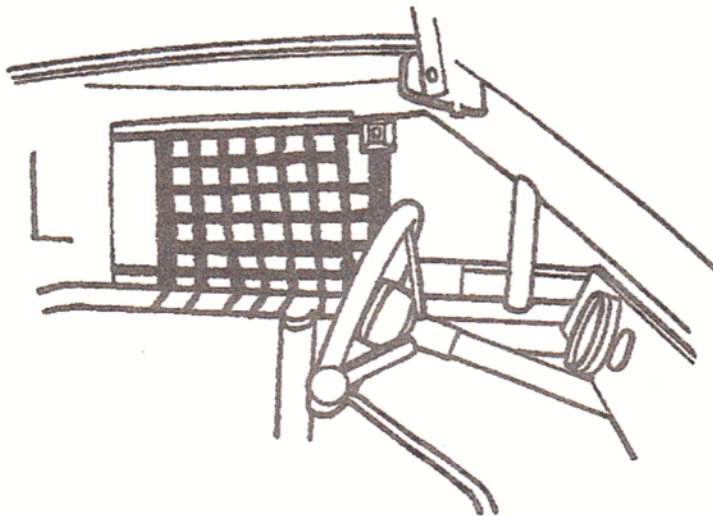


20 Gauge Steel Throughout Including Including Trunk and Dash Area  
Interior and Trunk Floor Must Extend As Close As Possible to Fiberglass Body

"Crush Panels" fabricated of steel, aluminum or plastic  
(Max. 3" wide) may be used to ensure tight fit

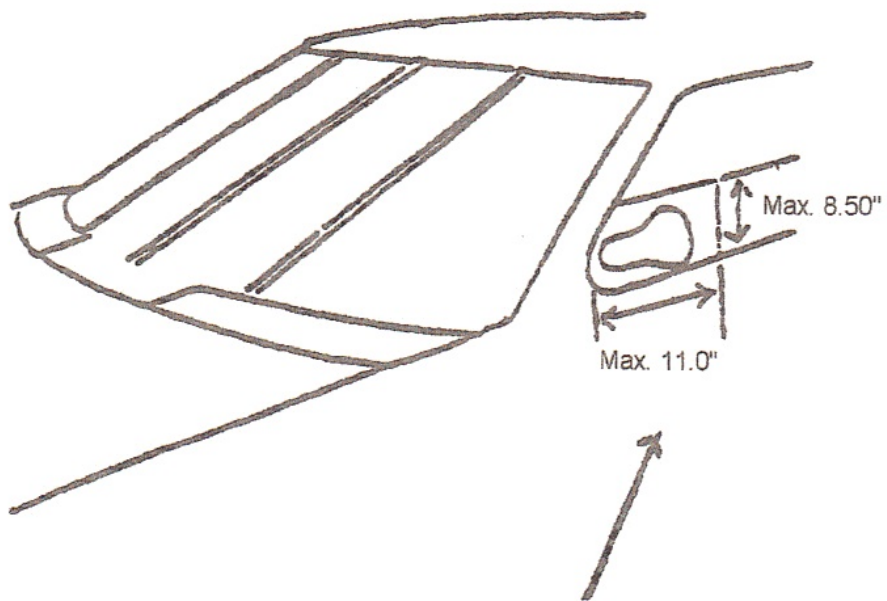


Recommended Air Cleaner Assembly  
and Hood Hinge Assembly

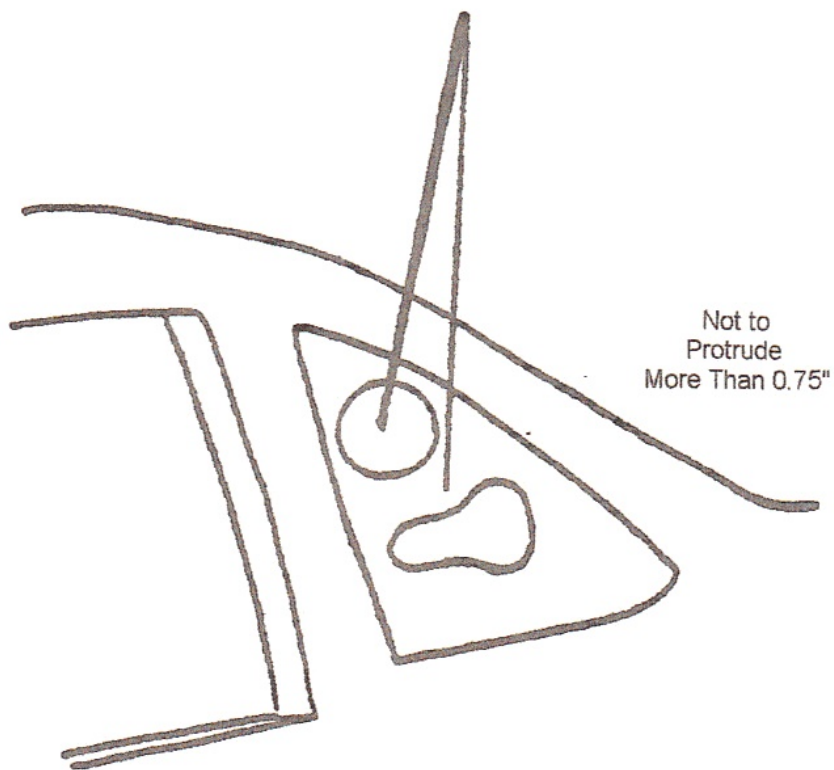


Recommended Window Net Installation

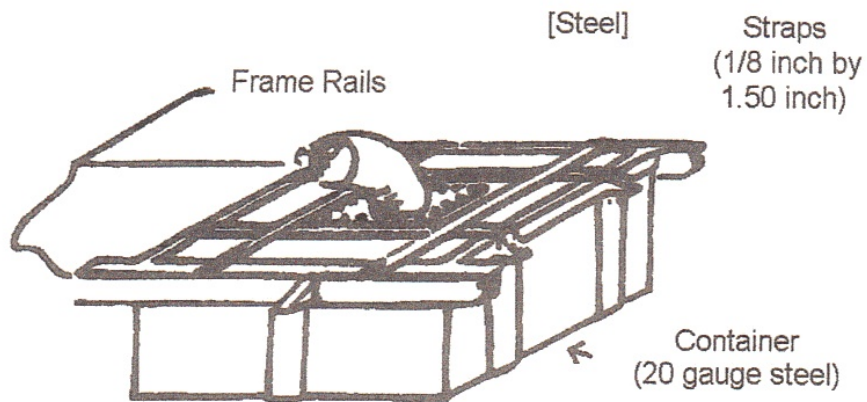
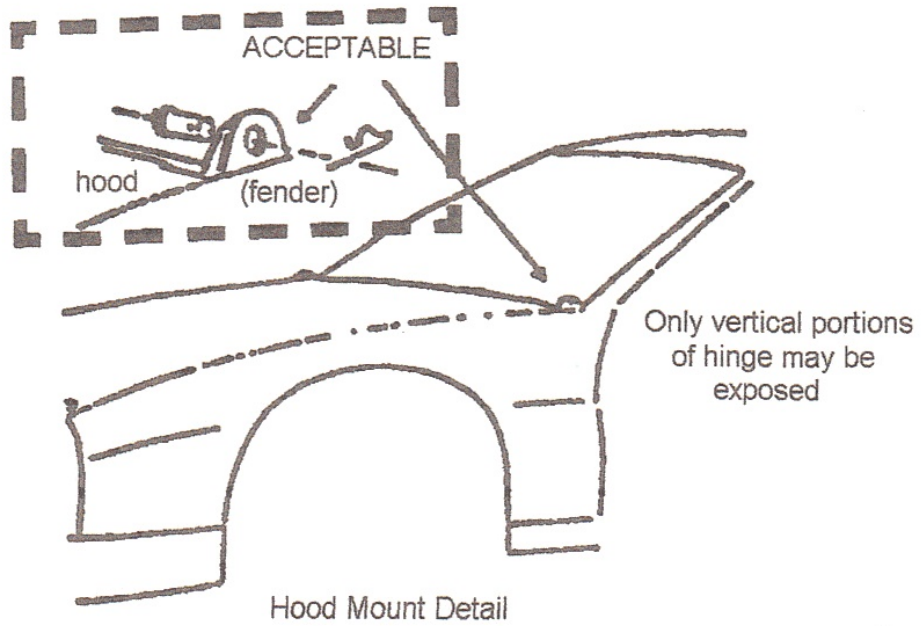




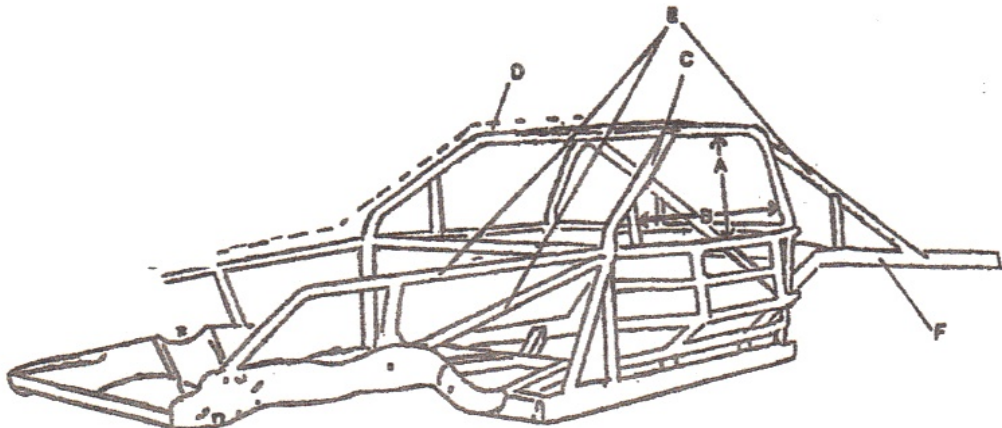
Acceptable  
Fresh Air  
Inlet



Not to  
Protrude  
More Than 0.75"



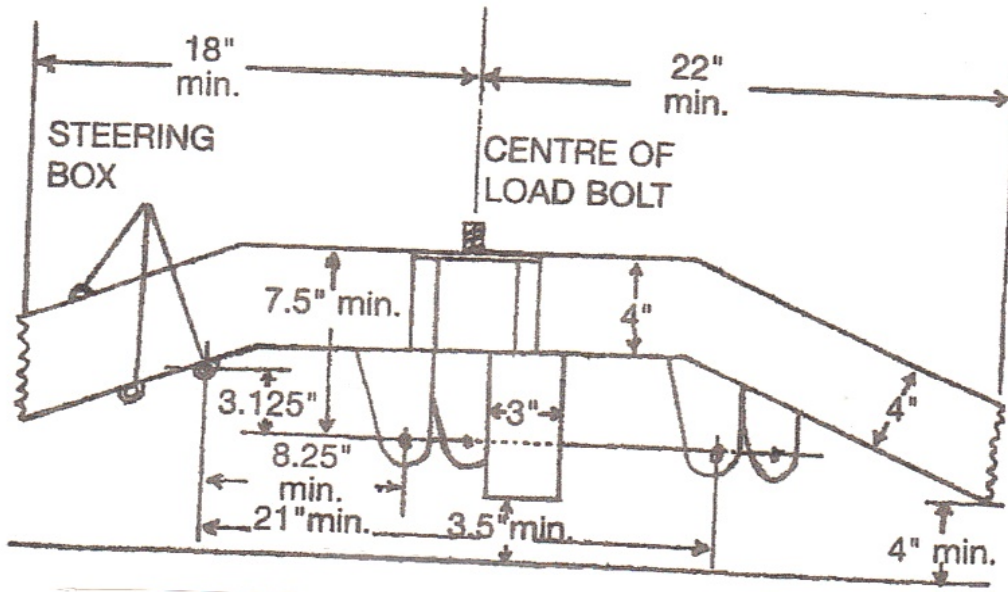
Recommended Fuel Cell Installation

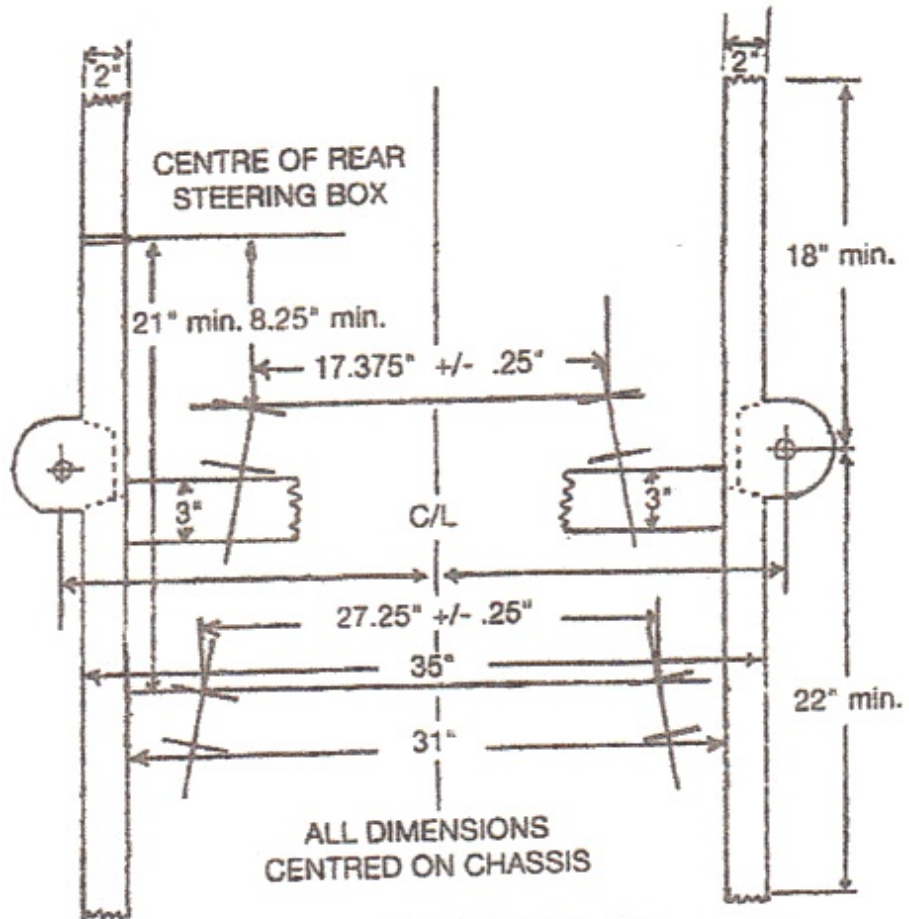


A. Door bar to roll cage 20" Maximum  
 B. Vent bar to rear roll cage 35" maximum.  
 Mandatory on both sides

C-D Main roll cage loop MUST be constructed as close as possible to interior door panels, side windows and upper windshield contour

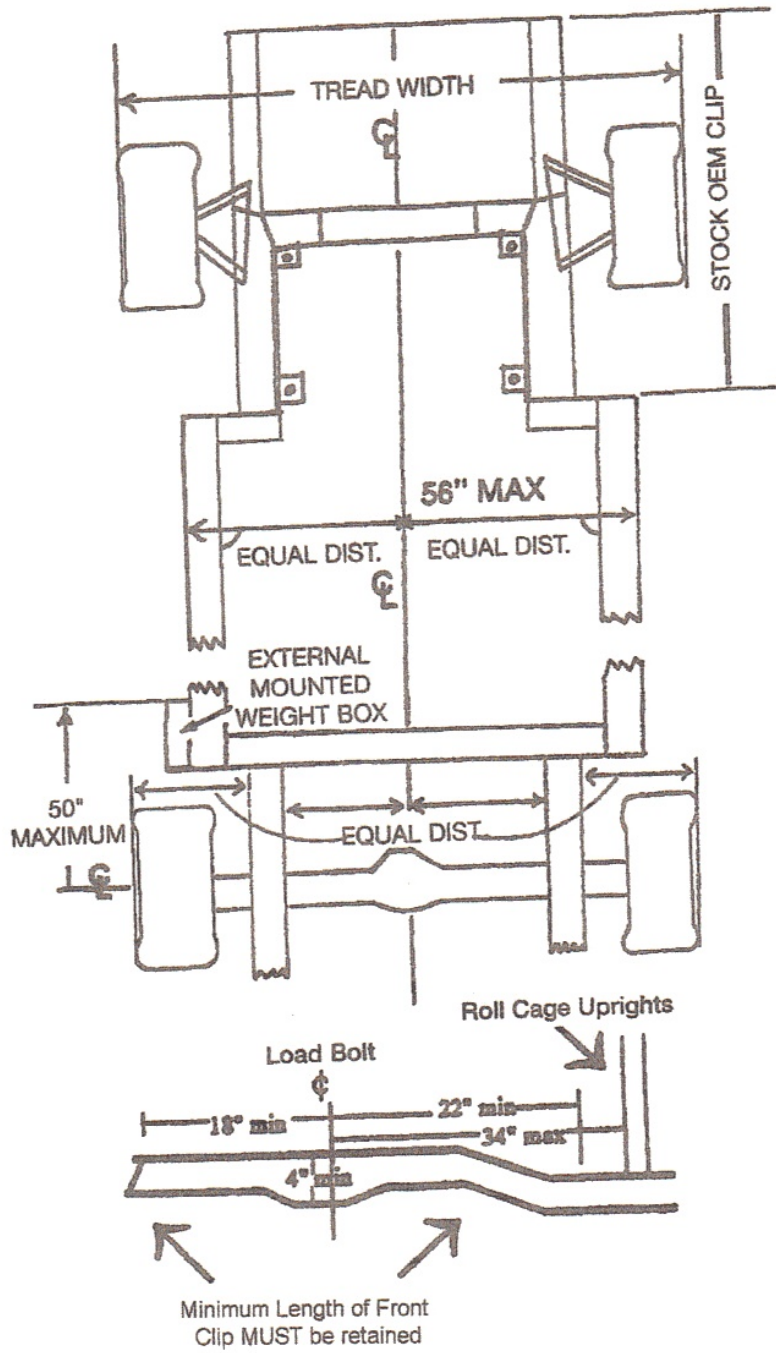
E. All tubing 1.75" x .095"  
 F. Rear frame kick-up over axle





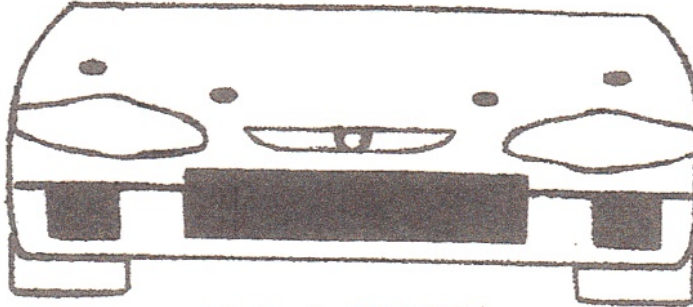
ALL DIMENSIONS  
 CENTRED ON CHASSIS  
 SIDE RAILS 2" X 4" X .125" wall  
 CROSS MEMBER 2" X 3" X .125" wall  
 MINIMUM WEIGHT 70 lbs.

Western Elite Division  
Chassis Diagram





Example of  
Frontal Area Ducting



Grille Opening Measurement  
28" x 6.75"

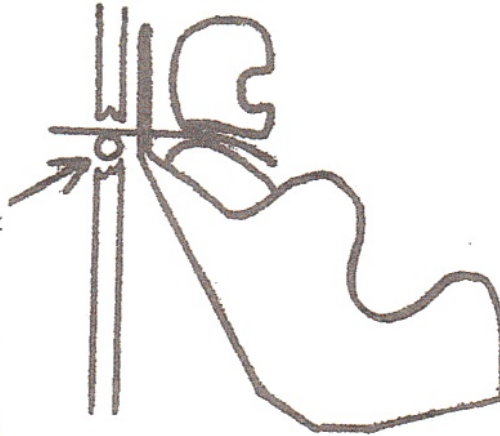
APPROVED SEAT INSTALLATION

Min. 1.25" O.D. x .095"

or 1 F

More than 6" ahead or  
behind main cage upright  
Min. 1.75" O.D. x .095"

Bar level with shoulders  
or Max. 0.50 inch below



Min. 3/8" Gr. 5 Bolts

