

**A. Competing Models**

1. Model year 1986 – 2007\*. **Approved model cars ONLY under competing models are:**

<b>Buick:</b>	<b>Century</b>	<b>LeSabre</b>	<b>Somerset Regal</b>
<b>Chevrolet:</b>	<b>Celebrity</b>	<b>Monte Carlo</b>	
<b>Chrysler:</b>	<b>LeBaron</b>		
<b>Dodge:</b>	<b>Intrepid</b>		
<b>Ford:</b>	<b>Taurus</b>	<b>Thunderbird</b>	
<b>Pontiac:</b>	<b>6000</b>	<b>Grand Am</b>	<b>Grand Prix</b>
<b>Oldsmobile:</b>	<b>Cutlass Ciera</b>		

No station wagons, Jeeps, convertibles, sports cars, Camaros, Firebirds, Mustangs or Cougars. All glass except windshield removed. Windshield must be replaced with Lexan, supported by one upright brace in center. Hoods, front fenders, rear quarters, roofs and trunks must remain stock for make of body. **Front fenders and rear quarters may not be cut or shortened. If in doubt, don't cut.**

2. Frames: A. **ALL** TIGER SPORTSMAN must run GM 108.1 wheelbase metric frames with Chevrolet 350 CID motors **ONLY**. Eligible bodies listed in #1 above.
3. \* Bodies: Five Star fiberglass Sportsman short track body optional.  
**639 – 112 Plastic Fender allowed**  
**ONLY PACKAGE "A" APPROVED FOR THIS OPTION.**  
Options: Monte Carlo #639-112  
Grand Prix #339-112 \*

**\* Package #339112 may be used optionally with Ford Taurus, Dodge Intrepid nose and tail.**

**In addition, Five Star plastic front fender #550-23P (L or R, W or B) may be used.**

The Five Star '88 Monte Carlo Body is an approved aftermarket body option.

**No Outlaw Bodies Allowed**  
**S2 Bodies Allowed**

## B. Safety/Design

1. Full cage mandatory.  
Specifications for Perimeter Roll cage: Maximum offset allowed 1" from center line of tread width.

Material to be used must be DOM or seamless, .090 minimum wall steel tubing. All cars required to have a 4 point or main structure of the roll cage must be symmetrical in all directions. Minimum length for door bars is 42 inches. Total height of roll cage to be 40-1/2" from bottom of frame. Halo to be no less than 1" lower. Width of halo to be no less than 46 inches outside to outside of tubing. Dash bar required, along with an X-type member across and behind driver. One piece of tubing running diagonally or perpendicular between halo in top of cage centered is required. Four curved horizontal door bars on driver's side with minimum of eight (8) inches to edge of seat from inside of door bars required. Minimum height of door bars 22-1/2 inches from bottom of frame. Passenger side three curved door bars with minimum 66 inches between driver's side door bars and passenger side door bars, outside to outside. A so-called "Petty bar" must run from center of cage to upper right front halo. Require 1/8" minimum steel plating of driver door bars.

**Main frame rails and clips may not be pierced or drilled or otherwise altered for purpose of reducing weight.**

2. Pipe size used for roll cage must be minimum 1-3/4 inches O.D., with thickness minimum .095.
3. Bumper brackets must be in stock locations. All bumpers must be mounted by shear pins.
4. Refer to diagram for roll cage and front hoop construction/front and rear hoops allowed. Mandatory 4 curved bars in driver's door, minimum 3 bars in passenger door constructed of .095 1-3/4" O.D. tubing. Inner door panel may be cut out. All roll cage tubing must be minimum .095".
5. Spoilers allowed maximum 3" height and maximum width of trunk lid only.
6. Interior Detail:
  - a. A full width dash is required in all cars. Vertical surface of dash must project in a single plane across the car. Top horizontal plane of the dash should carry forward to the firewall and enclose entire area beneath windshield. Instruments must be neatly mounted to vertical plane of dash panel.
  - b. Interior of car must be completely enclosed in respect to engine compartment, track surface, tires and rear fuel cell compartment. Interior panels must be minimum of .020 inch thickness of steel.
  - c. Right side floor pan may be level with transmission height or drop back down level with floor on driver's side. SEE DIAGRAM.

- d. Only one 3 inch spot mirror inside car approved. Cannot extend outside of the windshield "A" pillar. No side mirrors.
- e. No rub rails allowed outside the car.

## C. Crate Engines

### 1. **TIGER SPORTSMAN (FTS) SPEC ENGINE**

FTS spec engine #RPM 602 is available from RPM Racings Engines in Georgia, Vermont.

The 602 GM crate motor is available from RPM Racing Engines in Georgia, Vermont and from Butler & MacMaster in Hallowell, ME and will be required to run a 1.435 restrictor plate.

These plates are available from RPM Engines directly.  
Stock built motors will remain the same as per current Speedway 51 rules.  
The "original" Butler & MacMaster Tiger Sportsman crate may run a stock Corvette 15# flywheel; all other rules remain the same.

For pricing and ordering information for a TIGER SPORTSMAN spec engine, please contact RPM Racings Engines at 802-524-7406 or Butler & MacMaster at 207-623-8895.

### 2. *Motor Placement*

- a. *Engine set-back will be measured from the front of cross member to centerline of fuel pump and is 2-1/2 inches.*
- b. *The centering placement of motor will be measured from fuel pump mount on engine block to the right front inside of frame rail and will measure 6-3/4 inches.*
- c. *The engine height will be checked from a straight edge on top of right front frame rail to the top edge of roll pin on fuel pump.*

## D Engines

### **MAXIMUM ENGINE SIZE FOR ALL MODELS IS 355 C.I.D.**

- 1. Like engines of different year may be used if ALL measurements are alike and all bolt-on equipment fits that engine.
- 2. Any engine parts used must be stock for manufacturer's line including intake and exhaust. Intake manifolds may be interchangeable with option of stock intakes being swapped in tech inspections between teams and/or track officials at the direction of track officials.

3. Stock cast iron exhaust manifolds mandatory. Two and three eighths (2-3/8") O.D. maximum exhaust pipe extending from manifold to outlet. Exhaust must extend beyond driver's compartment.
4. Factory stock engine components only.
5. Piston must be four valve relief O.E.M. ONLY
6. Maximum bore size .040 over stock.
7. No planing, porting, polishing, decking, or flowing heads or blocks.  
**Factory 51 stock.**
8. Carburetor – 4412 Holley with 1" adaptor Canton part #85050 unaltered, with SPEEDWAY 51 restrictor plate. No carb hat air deflection devices allowed. Top of air cleaner must be metal or aluminum.
9. **NO HEADERS.** Mufflers may be removed. No balance tubes or H pipes. No interconnecting exhaust tubes. **Stock cast iron exhaust manifolds only.**
10. Alternators must be used and in working order, **and run off front of motor.**
11. Aftermarket oil pans and oil pumps are allowed.
12. All intakes and water pumps used must be cast iron.
13. **Electric fans allowed.**
14. Head rule with 1.72 valve head will be enforced. A one piece OEM stainless steel valve will be allowed.
15. Maximum valve size listed below:  
Chevrolet                      1.720"IN.      1.500"EX.
16. **Aftermarket motor mounts recommended with mid motor mount.**
17. Any flat tappet hydraulic or solid cam shafts allowed.
18. Maximum 3/8" screw-in studs allowed. Drilling and pinning of press-in studs allowed. 1 piece valves allowed.
19. OEM starters or aftermarket high torque starters allowed.

20. Maximum CID will be 8.5 compression **on non-spec engines**. (A .3 tolerance will be the MAXIMUM allowed. ABSOLUTELY NOTHING OVER 8.8 COMPRESSION WILL BE ALLOWED, AS DETERMINED BY OFFICIAL WHISTLER MACHINE).

## E. Transmission

1. Transmissions must be stock standard 3 speed, no automatic allowed. **Steel type bell housing mandatory.** Mandatory bell housing must remain 360° and shall not be altered, except for inspection hole not to exceed 2" in diameter to be drilled in bottom of bell housing.
2. Standard stock clutch (10.4") and flywheel assembly only. One clutch, one diaphragm-type pressure plate only allowed. No lightening of pressure plate. No aluminum pressure plates allowed – must be completely steel. Inspection hole must be drilled in bottom of bell housing unit for inspection viewing. Flywheel must weigh minimum of 20 pounds. Hydraulic throw-out bearings allowed.
1. Drive shafts must be O.E.M. steel only and painted white. No aluminum drive shafts allowed.
2. Transmission cross member NOT required, however rubber or solid mount for transmission IS required.

## F. Suspension

1. Any minimum 5" coil spring allowed on coil spring car. No spring rubbers will be allowed. Front "A" arms must be stock or aftermarket option upper steel tubular control arm:  
UB Machine part #15-0809-5R (right)  
UB Machine part #15-0829-6L (left)  
OR  
Port City part #100-06-800RHS (right)  
Port City Part #100-06-820LHS (left)

and shall not be altered in any way except urethane bushings will be allowed in front end only. Rear trailing arms must be mounted in urethane or rubber. Following rear trailing arms are allowed: stock or DCA RaceFab part #17811 Upper, #17812 Lower. Reinforcing allowed. One shock per wheel made of steel non-adjustable. Maximum one-inch sway bar. Stock sway bar with adjustable links will be allowed. Aftermarket sway bar with attaching "I" bolts will also be allowed, **AND MUST BE MOUNTED IN STOCK LOCATION**. No heim joints allowed. Four (4) jacking bolts will be allowed. Right front hub mandatory safety or aftermarket. The Pro Shock WB **steel bodied** series is **mandatory**. **Stock GM unaltered front spindles only.** *Stock Monte Carlo GM Pitman arm only.*

TIGER SPORTSMAN Division rules have been offered the following approved suspension parts from O'Reilly Auto locations:

ITEM	Part #
Upper ball joints	k6136/k5208
Lower ball joints	k6145t
Idler arm	k6187t
Outer tie rods	es2033rlt
Inner tie rods	es2034rlt
Center link	ds909

Monoballs has a weight  
penalty of 100 lbs. +/-

These part numbers are all Moog chassis parts only and O'Reilly Auto will give ALL TIGER SPORTSMAN teams a 15% discount off retail pricing when they show their SPEEDWAY 51 license at time of purchase.

The TIGER SPORTSMAN shock rule reads as follows:

“The Pro Shock WB STEEL BODIED series is MANDATORY and must be mounted at half travel +/- 1 inch at 6” ride height. This rule will be checked and any car not in compliance will not be allowed to compete until 100% fixed, ***measured with driver in car***. A violation after any competition race may result in loss of points, purse, suspension and/or other penalties”.

Stock manufactured rotors and calipers: Aftermarket (Howe/Wilwood, etc.) replacements that are lighter with larger piston which were approved in recent years will **NOT** be allowed.

2. Minimum ride height of 6” will be **strictly enforced, measured with driver in car**.
3. Frames must remain stock metric frame with no altering allowed except where rules permit. Stock rails over rear end must remain to at centerline of rearend. Springs must be mounted in stock upright position, mounted on top of housing tubes, to be positioned center of stock rails as stock. Original spring cars can be removed but springs must remain 34 inches apart center to center of jacking bolts centered between frame rails. Stock control arms must be used on stock frame mounts for rear end. (Refer to diagram). Stock steering boxes only. Aftermarket stock mounted steering boxes allowed. No steering quickeners. No spring rubbers allowed.
4. Any stock steel racing replacement steering linkage is allowed.
5. **No heim joints allowed.**
6. **Spindles must remain stock and match left to right.**

7. Maximum left front camber allowed  $+2.5^0$  degrees of camber, measured with Speedway 51 gauge, **with driver in car. 8. No suspension limited travel devices allowed stock or not, unless noted in rulebook.**

#### G. Tires

1. **TRACK TIRE ONLY** allowed. All four tires must be SPEEDWAY 51 Approved LMS AMERICAN RACER AQ 488/ left side tire & AQ 529/ right side tire all on 7 inch rims with 4.5 depth & .51 minimum durometer guage reading.
2. No tire softener allowed. Chemical treating of tires WILL NOT BE allowed. No shaving of tires allowed in TIGER SPORTSMANS division. A durometer rule will be in effect regarding minimum tire hardness.
3. Questionable tires, or tires not meeting above criteria as determined by officials, may be confiscated by officials and could result in disqualification and/or other penalties.
4. 5 lug 15" x 7" aftermarket race wheels only with equal offset from left side to right side will be used. No bleed-offs allowed.
5. Maximum tread width in front and rear **60.5"**. Wheel spacers may be used but must be equal left to right. Legal measurement taken with official Speedway 51 tech gauge only.
6. **Fenders may be cut for tire clearance. Determination will be what the technical inspector feels is REASONABLE. There will be no argument. If in doubt, don't cut.**

#### H. Rear Ends

1. Open or locked rear end allowed. Locked rear end must use Coleman part #SP-801-28 (28 spline) or #SP-802-31 (31 spline) **ONLY**. Rear disc brake mandatory. Brake bias device allowed. (Aftermarket brackets allowed – **NO slotting or centric bolts allowed on rear end mounts, or trailing arms, only one mounting point allowed.** stock manufacturer's rotors, calipers, etc. **ONLY**). No cambered rear ends allowed. Must be driven with solid flange drive plates. All rear ends are MANDATORY floater-type rear end.  
No aluminum tubes, no titanium or gun drilled axles and no aluminum center sections allowed. **Rearend must be mounted center of rear frame rails.**
2. Gears with a ratio between and including 3.55 and 5.19 will NOT be allowed. Maximum final drive ratio is 6.00.

## I. Gas Tanks

1. Fuel cell height must be 12" from ground to bottom of mandatory steel box housing can, must be safely secured in the trunk, horizontally centered between frame rails. All cars will have a **minimum 15 gallon, maximum 22 gallon fuel cell MANDATORY**, and a check valve in vent line is mandatory. Fuel cell must be enclosed in 20 gauge steel container.

## J. Safety Equipment

1. All cars must have seat belts and shoulder harness – quick release aviation-type minimum 3" safety belts required. Stock passenger seat belts and harness not allowed. All seat belts must be bolted (NOT spot-welded) to roll cage. No cam lock seat belts allowed.
2. Aluminum racing seat is mandatory. Seat must appear as close to stock position as possible, securely fastened (bolted, not tack welded). (See diagram for installation instructions).
3. There **MUST BE** a horizontal bar which attaches behind seat to prevent it from collapsing backward. A support for headrest or seatback extending to support back of head is mandatory. Splash guard is required behind head and shoulders.
4. An approved driver's window screen mandatory. Required seat belt type latch. Must be attached at top and bottom front by single seat belt locking device and 3/8<sup>th</sup> steel rod top and bottom, **or spring lock type allowed**.
5. **It is mandatory that a fire extinguisher** with working gauge be attached to the car interior, on driver's right side crossbar. Must be within reach of driver and accessible to safety crews from both left and right side, with a quick release. No taping allowed.
6. **All cars must have a safety cut-off switch** on driver's right side cross bar. Must be within reach of driver and accessible to safety crews from both left and right side.
7. Driver's fire retardant suits and gloves are highly recommended. The following are suggestions to aid in your safety: goggles, fire retardant socks, undergarments, racing type helmets – DOT or SNELL approved.

## K. Height/Weight

1. **Minimum height** – lowest point 6", measured with driver in car.
2. **Height: a point measured 10" back from top of windshield to center of roof must be minimum 51" from ground.**
3. **Minimum weight** ALL: **3,000 lbs.**



4. Weight may be added (lead bars must be 5 lbs. minimum and bolted securely to frame rails and may not be concealed). All weight (bolt-on) must be located ahead of centerline of rear axle and above or on inside of factory frame rails. No weight may be hung beyond the width or below the original factory frame rails. All lead must be painted white, with car # painted in contrasting color. Bolts must pass through lead, and must be secured with properly sized bolt and nut. No pinch bolts allowed. 5. Maximum **55.0%** left side weight rule (55.0% **ABSOLUTE**).

## **L. Miscellaneous**

1. **All brakes** must be in working order. Rotors must be minimum 1" thickness for front rotors and minimum  $\frac{3}{4}$ " thickness for rear rotors.
2. **Hood hinges and trunk hinges are mandatory.** Minimum three fast release hood pins must be in hood and two trunk pins required.
3. **Drive shaft** must be painted white with safety loops.
4. **No two-way radios** allowed.
5. **Driver must purchase TIGER SPORTSMAN driver license**, and must present proof of issuance of license. Only licensed members will be allowed in pits at reduced fee.
6. Battery must be housed and mounted securely behind driver seat, but remain outside of driver's compartment, and cannot be mounted beyond center line of rear axle.
7. Entire front fenders and vertical sides of nose panels must be free for Speedway 51 participating contingency award companies decals. Competitors wishing to participate in purse and point fund payouts **MUST** maintain all Speedway 51 required decals in assigned positions throughout the race season.

## **M. Numbers**

1. Numbers will be assigned on the driver's license.
2. Numbers will be at least 18 inches high and three inches wide **NEATLY** lettered. It is recommended that all numbers be as large as possible to facilitate scoring. Numbers must be in contrast to car body color. There will be numbers on each side of the car. There will be a number on the roof lettered to be readable from the scoring booth (on the right hand side of the car). There will be a number on the headlight cover lettered to read head-on, and one on the tail light cover for scoring and to aid in the line-up. There will be a number in the upper right (passenger) corner of front windshield to aid in line ups. Metallic numbers are not allowed.

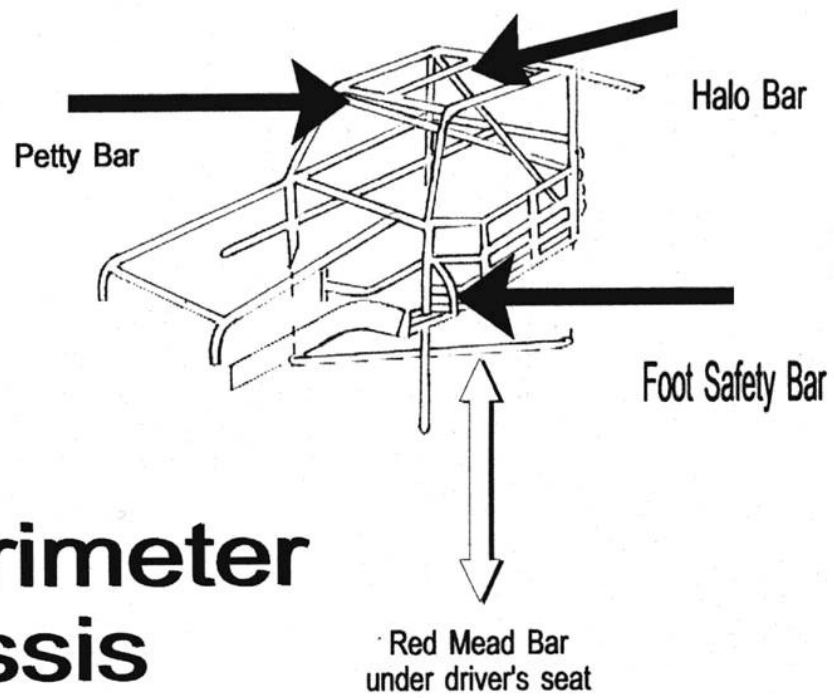
**IT IS THE RESPONSIBILITY OF THE COMPETITOR TO OBTAIN AND BECOME FAMILIAR WITH THE CURRENT RULES PERTAINING TO THE DIVISION IN WHICH HE/SHE CHOOSES TO PARTICIPATE.**

**ANY ITEM NOT COVERED IN THE SPEEDWAY 51 RULES SECTION MUST BE STOCK OR APPROVED IN WRITING BY SPEEDWAY 51 OFFICE. IF ANY ITEM BEING CONSIDERED BY COMPETITOR IN THIS DIVISION IS NOT ADDRESSED IN THESE RULES.**

**COMPETITOR IS REQUIRED TO CONTSPEEDWAY 51  
SPEEDWAY 51 FOR A JUDGEMENT AS TO ACCEPTABILITY.**

**The rules and/or regulations set forth herein 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 obtained, read, and understood a copy of the current rules, and complied with these rules. NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATION OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator, or official.**

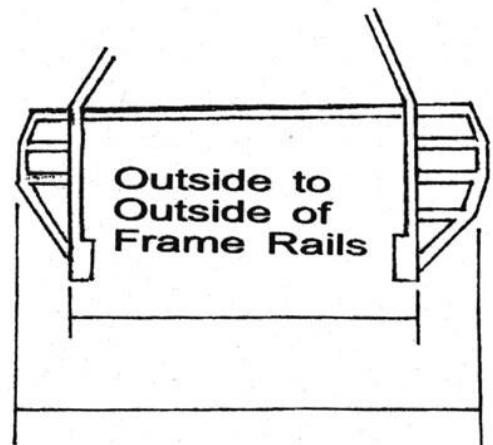
**EIRI 3/9/17**



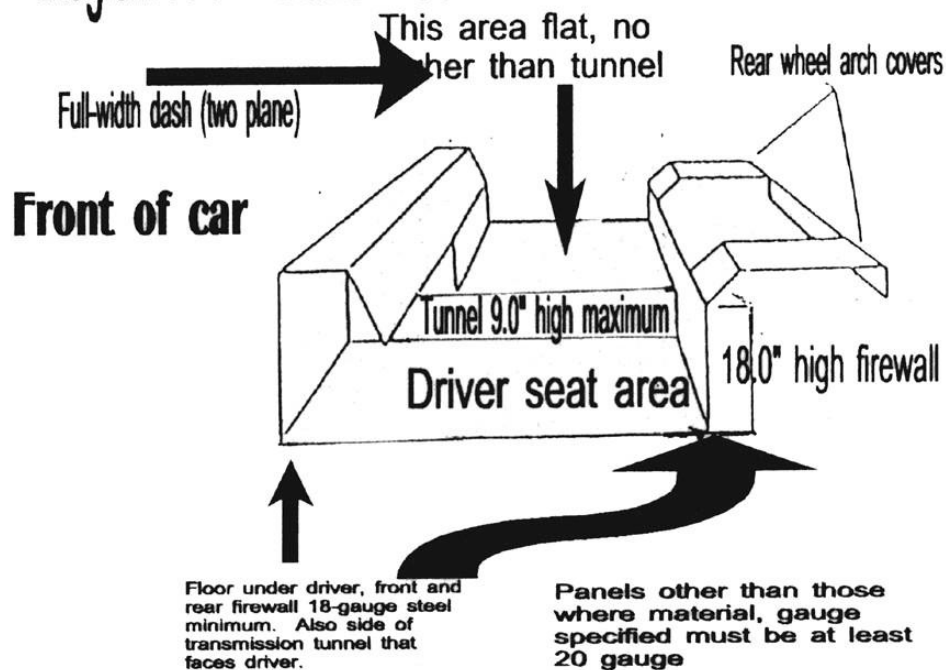
## Full Perimeter Chassis

## Typical Front View

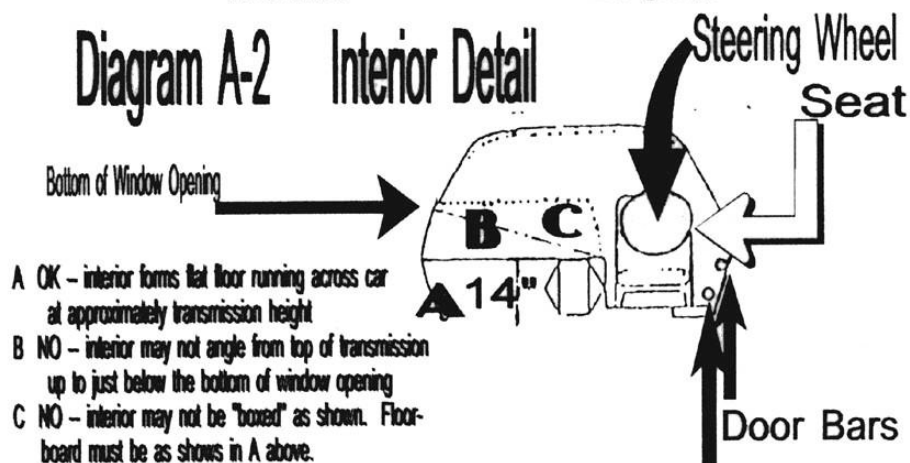
Frame reinforcement recommended for existing cars.  
Frame reinforcement REQUIRED for new cars.



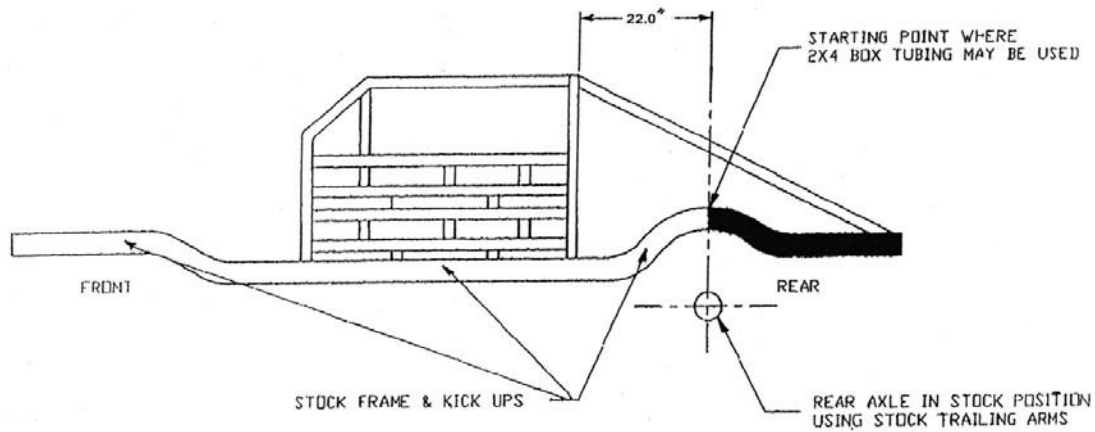
## Diagram A-1 Interior Detail



## Diagram A-2 Interior Detail



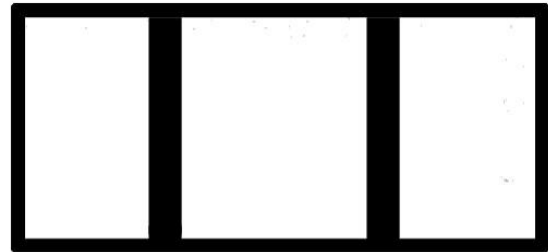
All bolt-on weight (ballast) must be located ahead of centerline of rear axle and above or inside of factory frame rails.



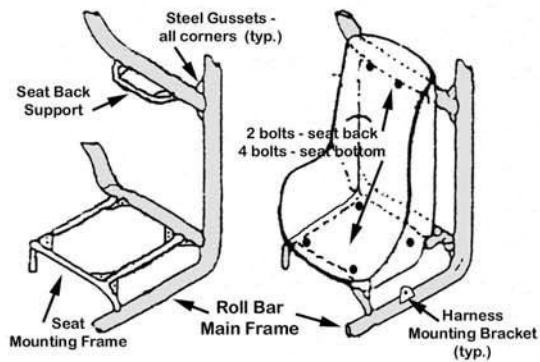
# Fuel Cell Protector



side view



back view



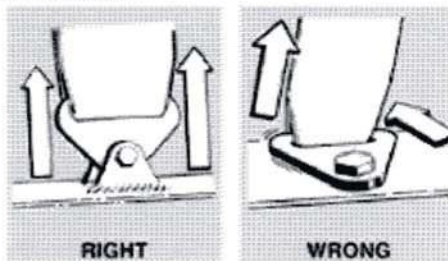
**Basic Seat Installation**



**FIGURE 2**

**Recommended installation for seat / belts -**

- 1) Anti-submarine belt should be anchored behind the chest line.
  - 2) Seat belts anchored apart, the width of driver, at an angle of 45 degrees to the floor of the car.
  - 3) Anchor shoulder straps at a point four inches below top of shoulder.
  - 4) Seat belt anchor should be positioned 2-1/2" forward of the driver's extended back line.
- All mounting brackets should be attached directly to the frame or chassis of car, and installed to limit the driver's body travel both upward and forward. **DO NOT MOUNT TO THE SHEET METAL FLOORBOARD.**



**FIGURE 3 & 4**

Mounting brackets should be installed at an angle that is compatible with the direction of pull on the webbing under full load.

Minimum specification for bolts and washers to attach the seat belts, harnesses and anti-submarine belt hardware are Grade 8.