

# **M-40 Vintage Modifieds Rule Book 2017**

**This book covers;**

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**Technical Procedures**

**General Rules**

**Penalties for Rules Infractions**

**General Procedures**

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**Mentoring Programs**

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## **1. Eligibility**

**US and Canadian closed cars & pickups to 1975.**

**Up to 1975 compact cars or trucks. (Vega, Pinto, Austin)**

**All C.V.M or VROA compliant cars. Original metal bodies only.**

## **2. Body Rules**

- 1. No top chopping**
- 2. Stock body width**
- 3. Trunk may be shortened-contoured or cut vertically**
- 4. Rear of body must be completely closed with sheet metal and extended down to frame.**
- 5. No spoilers, wings, or fenders. No air dams.**
- 6. All windows must be stock size. Only the windshield to be covered. Windshield must be clear 1/8" or thicker lexan. Windshield must fully fill the opening.**
- 7. All body panels, including roof inserts, must be sheet metal or made for racing plastic. Minimum sheet metal .20 gauge. Front hinged roof hatch allowed.**
- 8. All cars must have full hood. Hood must cover top of radiator or have a fixed cover over radiator. No exposed cap or top hose.**
- 9. Hood scoops can be full length of the hood and no wider than 22" and no higher than 1" above air cleaner. Scoop must not be made to direct air over roof or impair driver vision.**
- 10. Nothing in front of radiator except grill and air scoop to move air to radiator.**
- 11. No die cast or plastic grills.**
- 12. Louvers on hood and side panels forward of front firewall only.**
- 13. Body panels solidly attached and must extend to bottom of frame rails, no screws(sheet metal) anywhere on car.**
- 14. 4" minimum body sides to ground clearance. 3" on the nose area ONLY.**
- 15. 1/4" maximum air gap on hood and trunk lid.**

16. 6 degree maximum body rake. Measured on window with frame rails level. 0 degrees.
17. Hood and trunk must be fastened when car is on track.
18. Cars must be properly painted, included frame and roll cage. Must be numbered and maintained in proper condition.
19. Must have contrasting numbers on both sides and roof facing outside of the track. Numbers must be of 18" minimum height on the sides and contrasting color to the body, easy to read.
20. Minimum height from ground to high point of roof is 54 1/2" for pre-1948 cars. 52 1/2 for 1949-1975 cars. (With driver in car).
21. Body may be offset up to 4" from center line of frame for bodies 1948 or older. 1949-1975 offset 1" from center line.
22. Front of car: No front fenders or any tire covering of any type allowed. Rear of car: At least one-half (1/2) the width of the tire on each side of the car to extend outside of the body.

### 3. Frame & Suspension    *Part A - Fabricated Frame - ALL CARS*

1. Frame must match attached outline, except the rear kick up may be vertical.
2. Entire frame must be 2" X 3" X .100 wall thickness steel tube including mandatory front and rear cross members. The 2" X 3" must be upright.
3. Added builder choice and sub frame may be any size, no frame part may be closer than 5" to ground.
4. Main frame may not be drilled or altered in any way to reduce weight.
5. Maximum wheel base is 118".
6. leaf springs only. Springs are either two transverse or four parallel springs. No combinations.
7. No other springs allowed.
8. Load bolts and sway bars ok.
9. Front of car: No front fenders or any tire covering of any type allowed. Rear of car: At least one-half (1/2) the width of the tire on each side of the car to extend outside of the body.

### 4. SHOCKS:

One welded steel body shock per wheel. NO TAKE APART SHOCKS

## 5. PART B S-10 Frame

The S-10 Frame will not be legal for the 2017 season. The Vintage Mods at M-40 will only utilize the fabricated frame built to the requirement drawings.

## 6. Roll Cage

1. Minimum 6 point roll cage.
2. Minimum 1 3/4" OD round tubing .09" wall primary bars. 1 1/2 "OD .090 Wall secondary bars.
3. Three door bars each side. Left side must be bowed out.
4. Left side (Drivers) door bars must have minimum 1/8" steel plate, at least 200 square inches to protect driver torso. Full door plate recommended.
5. Center of windshield to have 1/4" cable or 1" .090" wall tube. Bar/cable centered between halo bar and dash bar. (Becker Bar)
6. Must have X in frame under main cage 1 1/2" minimum or K Frame 1 1/2" minimum.

## 7. Fuel & Fuel System

1. Fuel cell mandatory. Cell must be completely enclosed in metal can.
2. Cell must have crash protection bars.
3. Cap must be tethered.
4. All fuel lines must be braided or solid. No copper.
5. Mechanical fuel pumps only.
6. Metal fuel filters only.
7. No fuel lines inside cockpit.
8. Pump gas, race gas 110 octane, E85 only.

## 8. ENGINE PART A - Inline 6 250ci Chevy. 240ci Ford

1. Inline 6 cylinder over head valve engine cast iron block & production cast iron head.

2. Any head work ok. Two valve per cylinder.
3. Production crank, stock stroke.
4. Any rods, any pistons.
5. Flat tappet cam and lifters only.
6. Any intake.
7. Only Qty 1. (2 BBL Carburetor). Holley type, carter or demon. **MUST** have 2 return springs.
8. Engine location: Maximum allowed distance for setback of engine is measured from center line of king pin measured back to the number one spark plug and is 13"

Maximum allowable distance down to center of crankshaft from line across the top of the frame at the crankshaft bolt is 5". Engine must mount vertically within 10 degrees of OEM position. Chrysler to be in OEM position. Maximum offset from center is 2". See the Modifieds Drawing.

**9. PART B - INLINE 6 : over 256cid, 292cid or 300cid**

1. Same as above except flat top pistons only.

**10. PART C – V8 Engines – Chevy, Ford, Dodge.**

1. 360cuin. Maximum. Cast iron small block and production iron heads only. Head work ok.
2. Any intake.
3. Holley #4412 500CFM - 2BBL carburetor only with no modifications
4. Flat top pistons only.
5. Any rods.
6. Flat tappet cam and lifters.
7. Production crank, balancing ok.
8. Engine set back V8 Engines, 17" from center left of axel to #1 spark plug hole.
9. Offset 2" maximum.
10. V8 Engines, crankshaft to ground 11" minimum measurement with race car sitting on the ground. 20psi in all 4 tires Maximum.

### 11. Ignition inline 6 & V8

1. Battery powered only. No magnetos.
2. Must have a RED master kill switch. Kill switch must be easy to see. Off must be push in or turn lever down, OFF position must be labeled as such.
3. V8 engines MUST run a Rev Limiter, **6200 chips**.

### 12. Exhaust

1. Any header or cast manifold.
2. All exhaust must exit through a muffler(s) 100 decibel MAX or per the track rules if track rule is quieter.

### 13. Cooling System

1. Any type of radiator mounted at front of car.
2. Radiator must not be outside of frame or above hood.
3. Auxiliary coolers must be protected and outside of driver compartment.
4. Race Cars **MUST** have an overflow catch can, they can be located forward of firewall. Steam vent from overflow can, must be visible to the driver on the front passenger side of the window.
5. No antifreeze allowed, Water Wetter, Engine Ice, Evans is approved to use.

### 14. Drive Train

1. Blowout proof bell housing or OEM bell housing with 1/4" steel 180 degrees 4" wide shield or approved blanket on manual clutch. SFI approved shield ok.
2. Any flywheel or flex plate ok.
3. Any working clutch.
4. Any transmission that does not have an internal clutch. Chevy., Ford, Dodge, after market.
5. Must have working reverse.
6. Steel or aluminum driveshaft only and must be painted white. Have the car number attached.
7. 360 degree driveshaft hoop 3" to 6" behind front of u-joint. Rear will be 3" to 6" in front of the rear u-joint.

8. Any rear end. OEM, floater or quick change. OEM must have axle retention. (Welded)

15. Wheels & Tires 8" steel racing wheels only, Wide 5 or 5x5 ok, 1" lugs mandatory

Maximum offset on all cars to be measured from inboard vertical rim bead to the surface of the frame rail. (Measured with the Left front wheel parallel to the frame) The difference in measurement from side to side may not exceed 3" . Access to measure **must** be made available.

**Tires - Hoosier D800 only**

16. Weight Rules

- A. Minimum weight of car & driver after any race shall not be less than 2300 lbs. Inline 6'
- B. Minimum weight of car & driver after any race shall not be less than 2400 lbs V8 engine
- C. Weighed with the driver in the car. No adding of fuel before weighing. Left side weight shall not exceed 60% of total weight.
- D. Ballast weight must be directly and securely attached to the sides or top of the main frame rail or major cross member structure, not the sub frame. All ballast must be inside of body panels. No lead shot or liquid type ballast permitted. All ballast weights must be painted white, with the car number painted in red or black. Any car losing ballast on track will be disqualified.

17. Crash Guards

1. Crash guards are mandatory front and rear. Front crash guard must be mounted a minimum of 3" ahead of front cross-member to provide a crush zone. Must be constructed of steel or aluminum tubing. No sharp corners or rough edges allowed.
2. Crash guards must be flat across. No bowed crash guards. Top and bottom bars must extend the same distance from the cross-member and must be parallel. Optional crash guard (NASCAR modified type) allowed. No crash guards or nerf bars to be filled in with any type or panels .
3. Crash guards must be a minimum of 12" and a maximum of 14" from top to bottom. Center must be 12" to 16" from ground and must have at least one vertical bar.
4. Rear crash guards may extend to 1/2 of rear tire width but must be at least width of chassis at rear cross-member. All rookie drives must have at least one bar on rear crash guard painted bright yellow. No other cars to have yellow crash guards.
5. Front crash bars to be no wider than chassis at front cross-member. Exception on four spring cars, crash guard may be as wide as outside of spring perch. Maximum distance from center of right king pin to the front of the front crash guard must not be more than 32". Ends of



both front and rear crash guards must be tied back into the chassis with steel, flat bar or tubing, minimum 1" x 1/8", or tin straps or thin iron rods. Must be fastened solid at each end.

6. Nerf bars must not extend past outside edges of tires. Compulsory between front and rear wheels. Nerf bars not allowed in front of front wheels.

#### 18. Safety

1. An approved racing seat must be securely fastened to the cage or frame at bottom and backrest. Seat must have padded headrest Halo double head restraints (right & left), on each side of the driver's seat. Aluminum seat is mandatory, 125" thickness. Seat must be mounted above 2" X 3" frame rail.

2. All bars in potential contact with the driver's body must be covered with fire retardant (made for racing roll bar) padding. If running a door liner on left side, sheet padding is recommended. Center of steering wheel must be padded.

#### 19. Steering, Brakes and Starter

1. Any regular type steering box may be used but column must mount to the left of dash center. No center steering boxes. Power steering allowed. Rack and pinion is allowed. All steering parts must have 3" ground clearance. welds on any steering parts must be properly reinforced.

2. Dual brake system is required. Four-wheel brakes must be in good working order. Any type brake system allowed. No power brakes.

3. Cars must be equipped with a self starter in working condition.

#### 20. Mandatory Safety Equipment

1. Driver must have a helmet that is no less than **2005 Snell Foundation SA rated**. Helmets will be inspected and must have sticker. **May have to change to 2010 per track insurance**

2. Full face helmet is recommended. Nomex lining, No motorcycle helmets.

3. **Three inch wide made for racing seatbelts with double shoulder harness must be used. They must have a quick release. Grade 8 bolts recommended with locking nuts. Crotch strap required. Seat Belt Manufacturing Date MUST be within 5 years. NO OUT OF DATES SEAT BELTS.**

**1. In 2015 ALL Seat Belts will be dated 2010 or newer.**

**2. In 2016 ALL Seat Belts will be dated 2011 or newer. 3. In 2017 ALL Seat Belts will be dated 2012 or newer.**

4. S.F.I. approved or Nomex designed for racing fire suits are mandatory. No Proban fire suits. Suits must be in good shape and should be clean. Double layer suit is recommended. Single layer suits MUST wear NOMEX or CARBON X underwear. S.F.I. approved racing, gloves, shoes, and NECH COLLARS are mandatory. HANS, NEXGEN, Hutchens are recommended.
5. Fire extinguishers are mandatory in the cars. Minimum 2 1/2 lbs, Must be mounted safely, Must have a gauge, Must be within driver's reach. Onboard systems accepted. If extinguisher gauge is empty or reads out of green zone car will not be permitted to run.
6. A fire extinguisher is also required at each pit crew site. A minimum of a 5lb fire extinguisher that is accessible at all time. (Preferable placement is at the rear of your trailer).
7. Driver's window nets are mandatory at drivers' head, Must hook at top and release closest and/or easiest for driver to reach.

## 21. M-40 Vintage Modifieds Frame, Roll Cage, Axle and Engine Location Drawings

1. Frame Requirements
2. Roll Cage Requirements
3. Alternative Axle Design
4. Engine Location

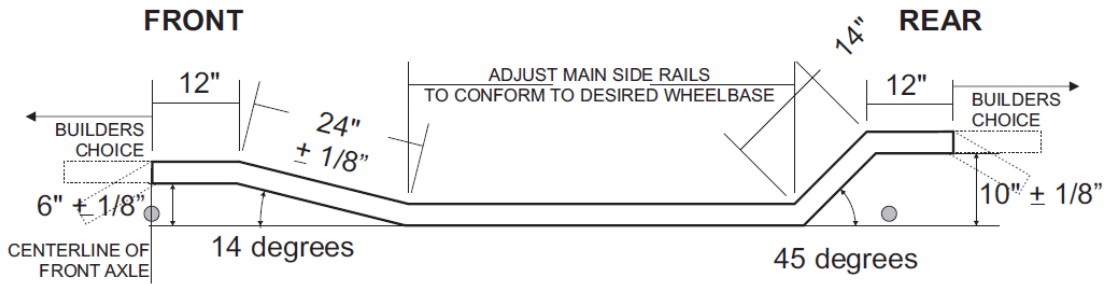
## 22. Radios

1. Raceceivers are mandatory.
2. One-way radios are considered to be part of safety equipment, cars cannot race without one.

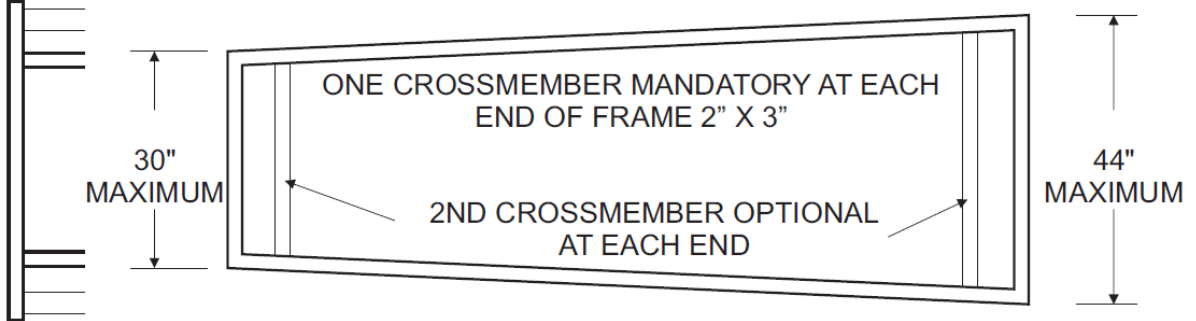
## 23. General Procedures

1. The Owner/ Driver is responsible for the technical legality of their cars.
2. The Tech. Official may check any engines that have blown during the race event for legality.
3. All new concepts and ideas must be taken to the Tech. Official prior to installation on a car. The Tech. Official's decision is final.
4. All cars MUST have a safety and technical inspection at the beginning of each year prior to the 1<sup>st</sup> race event. Tech sticker will be placed on the front windshield.

# FRAME REQUIREMENTS

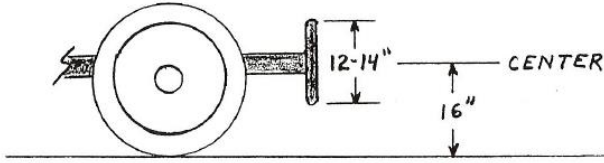


OPTIONAL FRONT CROSSMEMBER ON 4 SPRING CARS

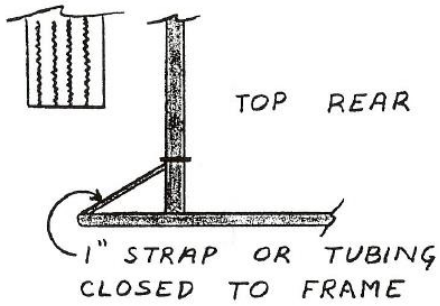


ENTIRE FRAME MUST BE 2" X 3" X .100" MIN. WALL THICKNESS

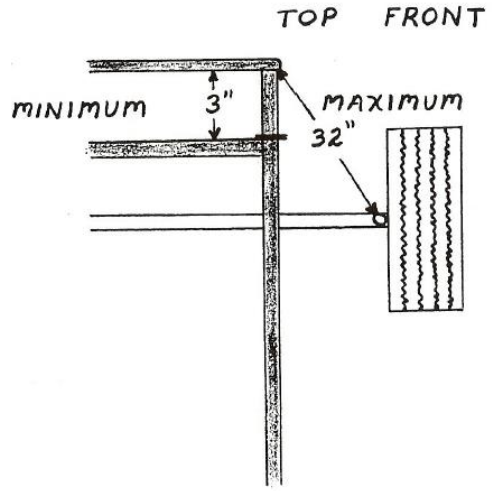
# CRASH GUARDS



SIDE FRONT AND REAR

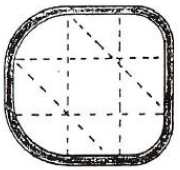


TOP REAR

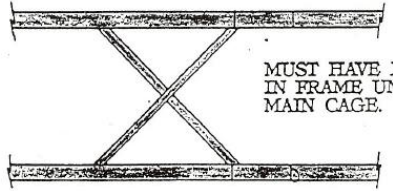


TOP FRONT

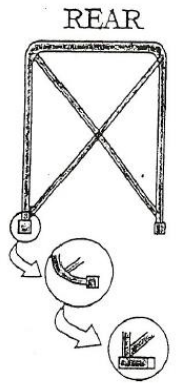
# ROLL CAGE REQUIREMENTS



ROLL CAGE MUST HAVE 2 PROTECTION BARS IN ROOF. (DOTTED LINES SHOW SUGGESTED POSITION ONLY.)

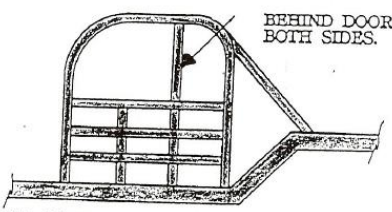


MUST HAVE X IN FRAME UNDER MAIN CAGE.

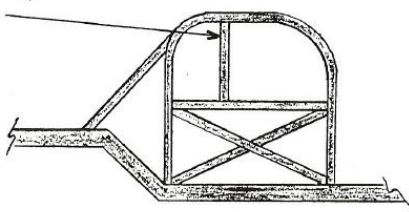


REAR

OPTIONAL METHOD FOR MOUNTING CAGE ON LEFT SIDE ONLY.



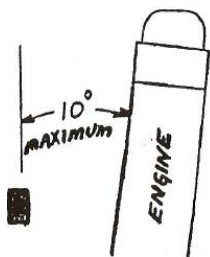
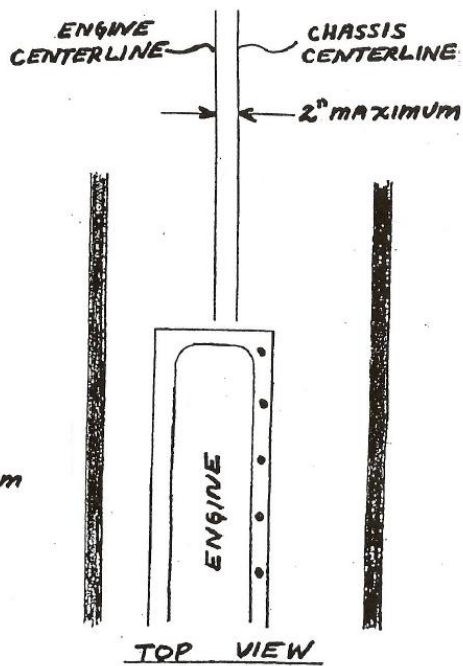
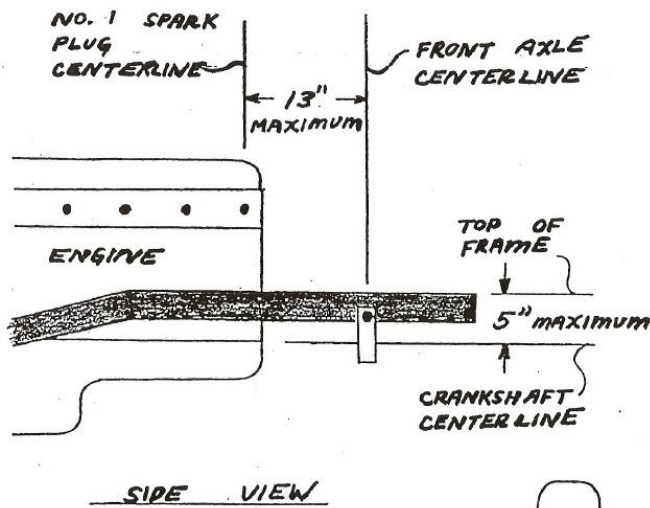
BEHIND DOOR POST BOTH SIDES.



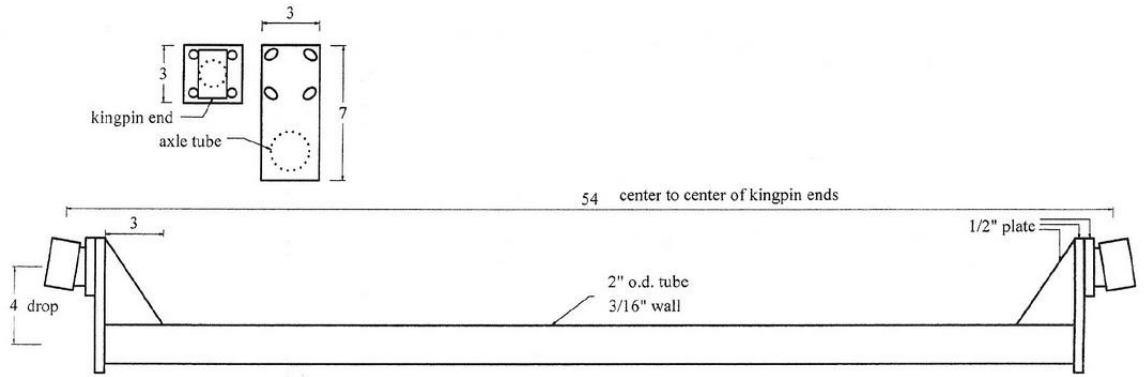
OPTIONAL RIGHT SIDE DOOR BARS

ALL 90° JOINTS IN ROLL CAGE MUST BE GUSSETED.

# ENGINE LOCATION



Axle Specifications



approved adjustable shackle

