



Medicine Hat Auto Racing Association
HOBBY STOCK
 Revised for 2024 Race Season



NOTE:

- ***ATTEMPTS TO “BEND” THESE RULES OR FIND AND TAKE ADVANTAGE OF “LOOPHOLES” WILL NOT BE TOLERATED. IF YOUR CAR IS NOT INSIDE THESE RULES, YOUR CAR WILL NOT RACE.***
- ***MHARA Board of Directors reserves the right to amend any rule at any time as it pertains to Safety, Environmental and/or Property Issues.***
- ***. 14 years and older will be allowed with signed wavier from guardian, they must use a hans or equivalent neck restraint. Must have previous racing or driving experience.***

HS1 DRIVER’S SAFETY EQUIPMENT
HELMET

- **ALL helmets MUST be full face and “SA 2015” rated or newer.**
- head and neck restraint required. Must also have left and right head supports.

DRIVING SUIT / GLOVES

- **MINIMUM**-single layer driving suit SFI-1 (***MUST BE CLEAN AND IN GOOD CONDITION FOR SAFETY REASONS***)
- Double layer driving suit meeting SFI-3-2A/1 **HIGHLY RECOMMENDED** (***MUST BE CLEAN FOR SAFETY REASONS***)
- Standard cotton base or Nomex underwear **HIGHLY RECOMMENDED.**
- Fire resistant race gloves or 100% leather driving gloves **MANDATORY.** **NO** mechanics gloves or fabric backed gloves allowed.
- Racing boots with fire rating or ALL leather shoes **MANDATORY.** Boots **HIGHLY RECOMMENDED.** **NO** nylon running shoes.

HS2 MODEL

- Any North American “**FULL**” size standard production rear wheel drive passenger car, 1965 or newer sedan or hardtop is eligible.
- Wheelbase not less than
 - 108” GM Products
 - 104” Ford and
 - 105” Dodge Products
 wheelbase measured from center of rear axle to center of front lower ball joint
- **NO** station wagons
- **The # 1 rule is STOCK.** **NO** change or modifications to the stock production cars or parts, unless written in these rules.

HS3 BODY

- No part of frame or body can be lower than 6 inches from the ground except front cross member, oil pan, sway bar, exhaust, lower rear control arms and shock mounts may be 3-inch minimum from ground level.

- Cars **MUST** be neat and repaired for **EACH** Raceday. **MUST** present a pleasing appearance to fans.
- Sheet metal must be kept in place always during the entire race event and must not be modified from original stock condition unless otherwise noted in rules package. No skirts, spoilers or other “add-ons”. **NO EXCEPTIONS.**
- Bodies **MUST** be complete and stock appearing. After market tubular bumpers are allowed but must follow the contour of the plastic nose piece. Bumper ends must be curled in, so they don’t project outside tire track / width.
- Front hoop **ALLOWED**. **MUST** be made of minimum 1.50” x .095” tubing. **MAXIMUM** two vertical supports per side. **NO** separate radiator protection bar **IF** front hoop is used.
- Doors must be bolted or welded shut.
- Wheel wells **MAY** be radiused. No more than 1 ½” greater than radius of tire. Radiused edges **MUST BE ROLLED** having no sharp edges.
- Front inner fender wells **MAY** be removed as per above. **NO** skinning of fenders allowed.
- Cars must be stripped of all glass and combustible material. All sharp objects must be removed. **NO** wood or lumber permitted in cars for any reason.
- Factory windshields may be retained if in good condition. Glass windshields **MUST** have four (4) steel safety tabs (two on top edge of windshield and two on bottom edge of the windshield) to ensure the windshield stays on the car.
- Lexan windshield may be used in place of factory windshield but must have minimum 3 bars in front of driver for safety reasons. If you choose not to run a windshield you must have Minimum of three windshield bars in front of driver.
- face helmet having face shield down always on track.
- Hoods **MUST** be kept in place always. **NO** hood scoops allowed.
- **STOCK** trunk hinges **MUST** be retained in stock factory location. Stock hood (only the hinges can be removed from hood / body) and trunk lid **MUST** be securely held shut by approved hood (minimum 4) and trunk (minimum 2) pins. **MUST NOT BE BOLTED DOWN.**
- Steel interior body panels can’t be gutted except for inner door panels. (4 door cars—**front door panels only may be gutted**)
- Trunk floor must be either fully stock steel or floor may be replaced with minimum 22 ga, steel in stock location. A **MAXIMUM** 6" diameter drainage hole to be cut into the lowest portion of trunk floor.
- All holes in floor, front and rear firewalls **MUST** be sealed using **MINIMUM** 22 GA thick sheet metal (**NO ALUMINUM**) riveted or welded in place. **NO** sheet metal screws allowed.
- Stock dash **NOT** required, but if removed it **MUST** be replaced with a sheet metal dash having exposed edges rolled.
- If mechanical oil pressure gauge is used, you must run metal or steel braided line, **NOT NYLON OR PLASTIC.**
- **NO FIBREGLASS OR PLASTIC BODY PARTS ALLOWED** except for composite plastic nose or tail / rear cone replacement.
- All mirrors to be removed.

HS4 ENGINE

- **ENGINE MUST BE STOCK.** May run hypereutectic flat top pistons with 4 valve reliefs. Must run stock crank and rods or stock replacements.
- 602 sealed crate will be allowed. All seals must be in place.
- Any steal cylinder heads allowed.

- **NO** stroked or de-stroked engines.
- Engine must be of the same manufacturer and series of engine available for that make of car. i.e.; GM to GM, Ford to Ford, etc.
- **Aluminum dual plane Edelbrock performer intake or equivalent allowed**
- May use 2- or 4-barrel cast iron intake
- Any car with casting / part numbers that have been removed or tampered with **WILL BE DISQUALIFIED.**
- Stock or racing oil pans allowed. **NO DRY SUMPS ALLOWED**
- **Only one (1) Holley 350 carburetor allowed with maximum 1" (one inch) thick adapter.** Stock for manufacturer of engine. Choke plate and shaft may be removed.
- **All race cars must run a MDS #8728 rev limiter with max 6200 chip. Or approved equivalent rev limiter<No 6al boxes allowed.**
- **Open air filters allowed.**
- **NO** performance type air filters allowed. (e.g. K&N or FRAM AIRHOG etc.)
- **NO** dual-line double pumpers.
- Electric fuel pump **ALLOWED.** MUST be mounted outside of car (i.e. under trunk floor between frame rails) **MUST** use Ford Inertia switch. Ford part number 9341A or 9341AZ. Switch **MUST** be located within driver's reach when belted in seat.
- **MUST** use metal fuel lines. **MAXIMUM** ten (10) inches of fuel hose to be used in total between fuel pump and carburetor. Double braided, high pressure, hydraulic hose with proper fittings on ends can also be used.
- Naturally aspirated engines only. **NO** turbo-charged, super-charged or forced air induction of any type permitted.
- **NO** grinding, cutting, porting or polishing of any type allowed.
- **NO** shaving head surfaces.
- **NO** roller parts allowed.
- Hydraulic lifter camshafts **ONLY.** Maximum .450 / .460 valve lift
- Radiator **MUST** fit between frame rails.
- Electric fans **ALLOWED**
- **NO** antifreeze or glycol permitted in radiator / water system.
- Water wetters are permitted.
- Unleaded retail gasoline **ONLY, NO ADDITIVES.**
- Exhaust manifolds **MUST** be stock cast iron. **NO** modifications. **NO** center dump manifolds.
- Exhaust pipes **MUST** extend from manifold to behind the driver at which point they may be turned down or exit on either side of the car in front of the rear wheel wells. (Maximum 2 ½" diameter exhaust pipes)

HS5 CHASSIS & SUPENSION

- Both front springs **MUST** be the same size. (e.g. Same number of coils, same diameter, same wire size.)
- Both rear springs **MUST** be the same size. *e.g. Same number of coils, same diameter, height, same wire size or same number of leaves*
- **NO** heating, cutting, shimming, spacing or modification to springs.
- **ALL** springs **MUST** be in stock location. **NO ALTERATIONS.**
- **NO** adjustable or shimmed coil spring mounts allowed.

- Rated springs allowed but must adhere to all spring criteria stated above.
- If using rated springs on rear differential, factory spring mounts may be altered to hold spring in place but the spring must be centered over axle.
- Only factory original chassis suspension parts or aftermarket equivalent/replacement parts (OEM) for make, model and year of car may be used. Factory upper control arm bolts can be replaced to achieve up to the maximum allowable camber numbers / adjustments below.
Stock replacement tubular upper a-arm allowed. Must be same on both sides.
- Parts must be mounted in stock location.
- Left and right side components mounting points **must** match factory dimensions in all directions.
- Adjustment to stock suspension **MUST** remain in limits of stock adjustment.
- **No modifications** (other than stated in rules) **to gain movement** permitted.
- **NO** spacers, spring de-arching, shimming, chains, heating, lumber, etc may be used to alter stock suspension.
- Sway bars **MUST** have stock hook up in stock mounts.
- Only one stock mounting, non-adjustable shock per tire / corner in stock location.
- **ANY** single shock may be claimed for forty (\$40.00) dollars following engine claim procedure.
- **MAXIMUM** 53.8% left side with driver sitting in seat with gear on after the main event.
NO TOLERANCE. MHARA track scales will rule.
- Maximum right front / left rear diagonal (cross weight) weight is fifty-one and one half (51.5%) percent of total car weight.
- **NO** Ballast allowed.
- **Frame from seam above center of rear wheels to back bumper may be replaced if damaged with 2x3 .125 wall rectangular tubing.**

HS6 DRIVE TRAIN

- Stock transmissions only. **MUST** fit and be on stock OEM mounts.
- **NO** adapter plates.
- Any stock manual or automatic transmissions allowed. **MUST** have working reverse gear.
- Cars with manual transmissions **MUST** have a scatter shield of ¼ inch material installed over clutch and flywheel area.
- Transmission fluid coolers **MAY** be used but **MUST** be securely mounted inside the engine compartment, not ahead of the radiator.
- **Stock diff only for year, make and model of race car. May be welded or spooled.**
- All cars **MUST** have steel, 360-degree driveshaft retainer hoops at least ¼ inch thick by 2 inches wide, **MUST** be positioned at the front and rear of drive shaft and within twelve (12) inches of each U-Joint.
- Front hoop **NOT** more than twelve (12) inches rearward of the front universal joint.
- Rear hoop **NOT** more than twelve (12) inches forward of the rear universal joint.
- Driveshaft **MUST** be painted white.
- All cars **MUST** have stock four-wheel brakes **IN GOOD WORKING CONDITION.**
- Brake lines **MUST** be stock and not restricted in any way.

HS7 TIRES / WHEELS

- Wheel spacers are **NOT ALLOWED**

- All four wheels **MUST** have the same backspacing. Tolerance is plus or minus 1/8 inch.
 - **ALL** wheels should be inspected for cracks before each race.
 - Wheel studs **MUST** extend at least one thread past wheel lug nut, regardless of lug nut size.
 - One inch racing lug nuts are **MANDATORY**
- **Race Tire options are;**
 1. American Racer 265 60 15 and lefts are sh for short.
 2. Each registered hobby stock car is allowed 10 new tires per regular season.
 3. Car's may run used American Racer 265 60 15 street stock tires
 - All cars must run 15" x 7" race rims.
 - Tires with sidewall lettering / markings rubbed off (sanding or grinding) or otherwise altered will **NOT BE ALLOWED**.

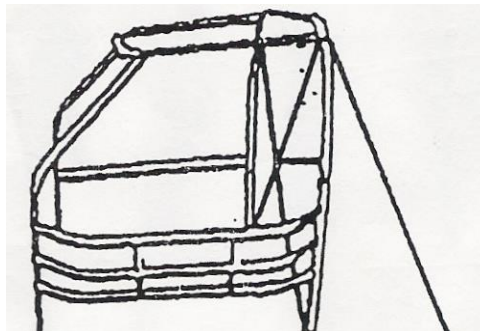
NOTE:

Tire integrity will be monitored by TECH. Tech has the discretion to disallow ANY tire, which in their opinion is a safety concern.

HS8 SAFETY

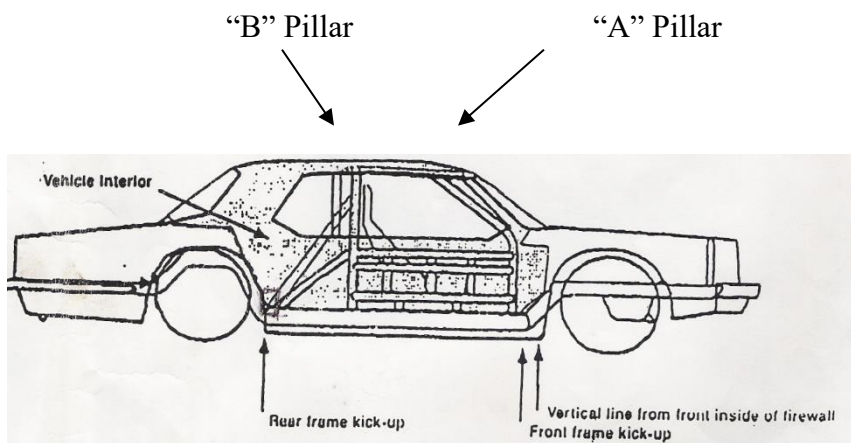
ROLL BARS

- Cars **MUST** have a **MINIMUM** complete 6-point roll cage.
- Rear cage hoop to be positioned within four (4) inches of "B" pillar.
- Front cage hoop to be positioned within three (3) inches of "A" pillar.
- Door bars **MUST** extend out to inside of door skins.
- **MINIMUM** three (3) drivers side kidney bars bent out as close to door skin as possible. **NO** straight bars accepted on driver's side. **MINIMUM** two (2) upright supports between each bar.
- **MINIMUM** two (2) passenger side door bars **REQUIRED**. Bent out to door skin **RECOMMENDED**. **MINIMUM** two (2) upright supports between each bar.
- Four (4) door bars are **STRONGLY RECOMMENDED** on driver's side.
- All bars **MUST** be minimum 1.75" x .095" wall thickness. **(THIS WILL BE TECHED)**



- If roll bar tubes are **NOT** mounted to frame, they **MUST** meet a 6" x 6" x 1/8" thick plate securely welded to floor.

- Front hoop **ALLOWED**. **MUST** be made of 1.50" x .095" tubing. **MAXIMUM** two vertical supports per side. **NO** radiator protection bar **IF** front hoop is used.
- Rear support bars can run not further back then the front top of rear wheel frame kick-up closet to the rear firewall.
- Two rear support bars **MUST** connect main hoop at least 2/3 of the height up the main hoop.
- "X" brace **MANDATORY** in rear main hoop. Horizontal harness mounting bar to be located between "X" brace and left upright of rear hoop.
- Horizontal front dash bar above stock location of steering column is **MANDATORY**. Bottom of **MANDATORY** steel dashboard **MAY** be mounted on this bar.
- Ankle bars **RECOMMENDED**. **MUST** follow existing roll cage rules. Ankle bars **MAY** be installed on both sides of car but shall attach to front hoop no more than six (6) inches above floor. Any bar higher than the six inches will be considered a "Petty Bar" and will be removed. Measurement taken at **TOP** of bar.

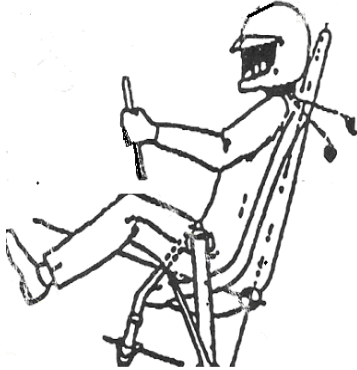


- **NO** part of the roll cage structure shall extend through the front or rear firewall except front hoop.
- Main cage members **MUST BE CONTINUOUS SECTIONS OF TUBING. NO SPLICES, BUTT WELDS etc.**
- Roll cage tubes and other structures that can be contacted by any part of the driver's body **MUST BE LIBERALLY PADDED** with approved padding.
- NO pipe insulation or pool noodles etc. allowed.
- **Steel door plates, 18 gauge or .049-inch minimum thickness, must be securely welded to outside of door bars on driver's side. Plate must cover area from top door bar to frame and from rear down post to five inches in front of seat. MUST be visible for inspection.**

SEAT & BELTS

- **ALL** cars **MUST** be equipped with an **APPROVED ALUMINUM RACE SEAT** which must be fastened to the roll cage. Not bolted to the floor.
Belts monitored by tech and replaced when they show wear and tear or become unsafe
- Five or Six-point **SAFETY BELTS**. (including sub belt (s) and shoulder harness) **MINIMUM** width of 3"

- Belts **MUST** be securely mounted to cage.
- MHARA TECH has the ability to not allow worn/weathered/damaged or stretched seat belts in competition.



The shoulder harness should be mounted behind the driver and above a line drawn downward from the shoulder point at an angle of 40 degrees with the horizontal.

Recommended mounting point is approximately 4 inches below top of shoulder

Seat back should be braced to prevent breaking down and allowing the driver to slide under the belts.

Most desirable lap belt mounting point is 2 ½ inches forward of seat and back rest latching action.

Recommended mounting point for crotch strap is edge of seat.

FUEL CELLS

- **NO STOCK GAS TANKS.**
- Fuel cell with “roll-over” valve in cap **MANDATORY.**
- ALL fuel cells **MUST** be equipped with a “flapper valve” style filler roll over valve.
- One cell per car—single pick up only.
- **NO** divided cells.
- Fuel cell **MUST** be totally enclosed in close fitting steel structure.
- Cell enclosure to be constructed of steel and **NO** more than one inch larger than fuel cell.
- Structure to be secured inside trunk compartment between frame rails, as near to rear firewall as practical.
- Structure **MUST** be secured using a **MINIMUM** of four (4) solid steel straps. **NO PERFORATED STRAPS.**
- Straps to be bolted to trunk floor. **NOT WELDED.**
- Fuel cell protection bar 1.75” X .095” tubing inside trunk is **STRONGLY RECOMMENDED.**

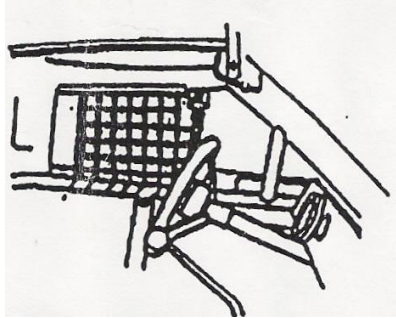
NOTE:

*If spare tire “well” is large enough to contain cell enclosure, bottom of enclosure shall be no lower than **TOP** of axle tube when cell is full of fuel.*

- Fuel cell **MUST** have screw on filler cap.
- **NO** fuel filler piping or gas lines in drivers’ compartment.
- If using rear facing filler neck a length of flexible neoprene **MUST** be used as part of the assembly.
- Filler neck may **NOT** be solid.
- **NO** fuel coolers or cool cans allowed.

WINDOW NETS

- Window nets on driver's door **MANDATORY**.
- **MUST** be nylon ribbon or fine mesh type.
- **NO** string nets allowed.
- **MUST** be a quick opening type.
- **MUST** be attached to roll bar at top and door bar at bottom.
- **MUST** have a release at top of window opening that is accessible to belted in driver and track workers.
- **MUST** be constructed so that mechanism will not be damaged in case of rollover.

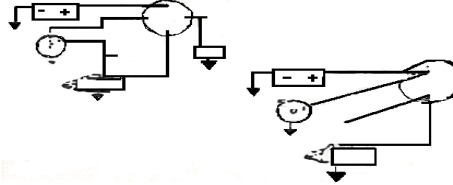


BATTERY

- **ONE BATTERY PER CAR.**
- Battery **MUST** be strapped securely inside a leak proof battery container. Solid steel strap or threaded rod and steel plate recommended. **NO** bungee cords, tarp straps, etc.
- Battery box to be constructed of steel and **NO** more than two inches (2") larger than battery.
- Cover of battery box **MUST** hold leaking battery electrolyte when assembly is upside down.
- Battery **MUST** be in driver's compartment, behind driver.

MASTER DISCONNECT SWITCHES

- All cars **MUST** have two (2) master disconnect switches that kill **ALL** battery power and shuts off engine power.
- **MUST** be located on driver side rear valence (package shelf).
- **OFF AND ON** positions **MUST** be clearly marked.
- **NO** exposed wiring permitted in the trunk area with the fuel cell.
- **Second master disconnect switch within drivers reach MANADATORY. Switch must be clearly labeled.**



FIRE EXTINGUISHERS

- In car fire extinguisher —system **OPTIONAL**. No portables in car on track.
- **ALL** cars in competition **MUST** have a portable fire extinguisher, serviced and tagged within the last 12 months in the pits. Minimum one fully charged 20 lbs. dry chemical fire extinguisher required visible in cars pit area per two cars side by side or one 10 lbs. per individual car.
- **NOTE:** Failure to comply will result in penalty or disqualification.

TOW HOOPS

- Every car **MUST** have a tow hoop on both the front and rear of the car which can lift the car.
- Tow hoop **MUST** be large enough to allow to easy hook-up of tow strap / cable / hook.
- Tow Hoop **MUST** be painted bright yellow.

HS9 NUMBERING

- Car Numbers **MUST** be a minimum of 20" high on each door and roof with a minimum 2" width.
- Roof numbers **MUST** have the bottom of the number on the passenger side of the car.
- **NO** foil or metallic numbers allowed.
- Car number **MUST** contrast with car color.

NOTE:

If scoring/ flag tower cannot see the number, the car will not be scored.

- Driver name **MUST** be on roof above driver door.

HS10 BUMPER FOR ROOKIE DRIVER

- Rear bumper for **ALL** rookie drivers **MUST** be painted yellow. **MINIMUM** three (3") inch yellow stripe full length of bumper (side to side).
- Rookie driver is determined by criteria listed in club rules.

HS11 COMMUNICATION DEVICES

- NO transmitting or listening devices **ALLOWED** in car except track mandated raceceivers.
- NO electronic monitoring computer devices capable of storing or transmitting information except tachometer allowed in car

HS12 TRANSPONDER UNITS

- Transponder units **MANDATORY**.
- Transponders to be located 125” behind forward most point of front bumper.
- Inside right-side frame rail suggested
- This class is meant to be a entry level class,
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- **IF YOU WANT TO GO FASTER GO UP A CLASS**