



Medicine Hat Auto Racing Association



## RENEGADE TRUCKS

Revised for "2017" Race Season

**ATTEMPTS TO "BEND" OR TAKE ADVANTAGE OF "LOOPHOLES" WITHIN THESE RULES WILL NOT BE TOLERATED. YOUR TRUCK WILL NOT RACE OR ON THE SPOT DISQUALIFICATION AS PER ANY AUTHORIZED M.H.A.R.A TECH / BOARD MEMBER.**

### RT1 MODEL

- Open to any full size ½ ton truck
  - 2 wheel drive regular cab fleet side truck only. Step side(s) not allowed.
- Short box extended cab allowed. Must be fleet side as above.
- Only Stock OEM replacement parts may be used

### RT2 BODY / FRAME

- Trucks MUST be neat and repaired for EACH Race day. MUST present a pleasing appearance to fans.
- All bodies must be steel and STRICTLY STOCK.
- NO altering or channeling of the body on the frame.
- **Truck frame, K member, and all cross members must remain intact, complete, and in OEM location. Cross member for transmission mount can be relocated to accommodate rear transmission mount. No material to be removed (i.e. lightening / weight reduction etc) from these parts.**
- ALL doors and end gates MUST be securely welded.
- ALL flammable materials MUST be removed.
- Windshields, rear and all side glass must be removed.
- Lexan windshield may be used in place of factory windshield, but must have 3 bars in front of driver for safety reasons.
- If no windshield is run the driver must have min 4 vertical metal bars in front of driver for protection. **Must be ¼" square minimum.** Optional: metal mesh welded to bars.
- NO loose objects may be carried in the truck.
- ALL trim, side mirrors, interior mirrors, head lights, marker lights, rear lights, light lenses, and plastic grills etc. MUST be removed.
- **NO object may be welded or reinforced on vehicle such as trailer hitches etc.**
- ALL hoods must be securely fastened with a MINIMUM of 4 hood pins OR 2 rear hinges and 2 front hood pins.
- Nonfunctional hood scoops are allowed
- Sub-frame to body insulators MAY be removed but must be replaced with solid shim.
- The front wheel wells MAY be removed.
- Inner rear wheel wells and box floor MUST remain intact. **Except upper rear shock and mount provision (RT4 rear suspension).**
- **Rear box covers allowed.**
- Cab floorboards MUST be steel and stock.
- Front firewall MUST remain stock, in stock position
- ALL holes in floor and front and rear firewalls MUST be sealed using a MINIMUM 22 GA sheet metal (NO ALUMINUM). Must be riveted or welded (NO sheet metal screws allowed).
- Rub bars allowed. **MAXIMUM 1.75" OD or 1" x 2" flat iron.** (In between wheel wells only)

- Rub bars must run parallel to the body panels and must not have sharp edges.
- Rub bar gap to body panel must not exceed 1 inch.
- Front and rear bumpers MANDATORY.
- Bumpers MUST remain in stock location. Using factory mounting and brackets for same make, year and model of truck.
- Front and Rear bumpers MUST not have any sharp edges causing cut tires. If so they must be capped to the body with 3/16 X 4 steel plates.
- Stock steel bumpers or front and rear fascias with original steel bumper behind (front only).
- NO ballast allowed
- MINIMUM Truck weight of 3500lbs after the main event WITH DRIVER IN TRUCK
- Maximum of an 8" high spoiler is allowed on rear deck

### **RT3 ENGINE, AIR CLEANER/INDUCTION, CARBURATION, IGINITION, COOLING AND EXHAUST ENGINE**

- Engine MUST remain In OEM position,
- NO modified engine mounts.
- Engine sizes – CHEV 350/305, DODGE 360/318, and FORD 351/302. Chev, Dodge, Ford straight 6 cylinders – V6 engines ALLOWED.
- NO stroker motors will be tolerated. ZERO TOLERANCE.
- MAXIMUM overbore .060".
- Race oil pump and pan ALLOWED. No dry sumps allowed.
- Pistons MUST be cast aluminum/forged, flat or dished, NO pop up pistons.
- MAXIMUM engine compression ratio 10.0 – 1.
- Any cast iron head allowed – NO aluminum heads
- Porting, polishing, port matching ALLOWED on cylinder heads and intake manifolds
- Any cast iron or aluminum dual plane intakes with no air gaps (welded or bolted), after market intake ALLOWED.
- Intake manifold MAY use 4 or 2 barrel adapter or use 2 barrel intake manifold.

#### **CAMSHAFT / VALVETRAIN**

- MAXIMUM lift not to exceed .500 inch.
- Duration will be up to the driver's discretion.
- Hydraulic flat tappet lifters only.
- Only 1.5 ratio stock stamped steel rockers or steel 1.52 roller tips.
- NO full roller rockers and NO roller lifters.

#### **AIR CLEANER / INDUCTION**

- Air cleaner is mandatory to act as a flame arrestor, but can be any type.
- Air cleaner must fit under the hood
- No ram air or ducting or cowl induction systems allowed.
- May use any aftermarket air filter element in factory style base/lid combination.
  - must be mounted to top of carb only, no remote mounting.
  - filter and housing must fit under hood.
  - no ram air or cowl inducting allowed.

#### **CARBURETION / FUEL**

- Rochester Quadra jet 4 barrel carburetor ALLOWED.
- Holley 500 cfm. 2 Barrel will be allowed on spec motors.
- Adapter/spacer may be used to transition from 2 bbl carb to 4 bbl intake maximum 1.2" thick with gaskets at installed height.

- Choke plate MAY be removed.
- NO fuel injection systems.
- Electric fuel pump allowed. Must use inertia switch (Ford part# 9341A or 9341AZ) and to be mounted within drivers reach when belted in.
- Must use metal fuel line from carb. Max of 10" of rubber fuel line can be used FROM fuel pump to steel line. May use double braided, high press hose with proper sealed fittings on ends in place of metal lines.
- Regular unleaded pump gas, premium pump gas, **NO Aviation fuel allowed**. 2014 class vote OVER RULED by M.H.A.R.A board for all safety reasons. Note there will be period checks either by tech , any safety personnel or any qualified M.H.A.R.A member. There will be a hydrometer on site for verification. You have been warned.

#### IGNITION

- **Must use MSD p/n 8728 rev controller with a maximum 6600 rpm chip in it.**
- **Must use factory style ignition, no aftermarket multi-spark systems allowed.**

#### COOLING

- Radiator MUST remain in stock location with a minimum 1 liter over flow container.
- Cooling systems MUST be flushed of glycol antifreeze and refilled with water only
- Water wetter compounds ALLOWED.
- Radiator fan can be belt driven or electrical.
- **No auxiliary water tanks.**

#### EXHAUST

- Stock manifolds or after market headers allowed.
- Exhaust pipes maximum OD is 3".
- **NO cross over's, X pipes, Y pipes, H pipes, or Balance pipes.**
- **Allowed to add a collector tip. Maximum length of collector tip is 12".**
- **Exhaust outlets must exit behind cab.**

#### Crate Motor

May use GM performance crate engine part no.88958602 or 19258602.

- Can use Quadrajet 4 barrel, Holley 500 cfm 2 barrel or Holley 650 cfm 4-barrel carb.
- May be used in Chev, Ford or Dodge trucks.
- When installed in Chev- mounts and placement must be factory.
- When installed in Ford or Dodge a Chev transmission may be used.
- Transmission cross member may be moved to fit mount.
- Lower section of chev motor mount may be altered to fit Ford or Dodge K frame.
- Rubber/polyurethane section of motor mount must remain intact.
- The center line of crankshaft must be centered in frame measured at the center point between lower ball joints +/- half inch when crate motor installed in a Ford or Dodge.
- When crate motor is installed in a Ford or Dodge the center line of the fuel pump must be a minimum of 1.75` in front of K frame measured at the frame rail of the truck.

\*\*\*\*\* ALL IGNITION, REV LIMITER, AIR CLEANER AND FUEL PUMP RULES APPLY\*\*\*\*\*

#### RT4 SUSPENSION

##### GENERAL

- NO lumber or chains allowed.
- Stock anti-sway bars allowed on front ONLY. They MUST be stock size for make, model and year. (may be adjustable).
- **Wheelbase must remain stock to make, model and year.**

- **Minimum Ride Height requirement of 5". No portion of frame rails can be lower than 5" to the ground.**
- **No bump stops allowed.**
- **Track width front and rear may not exceed 82.5 in. when measured from outside to outside of tires at the hub height.**

## SHOCKS

- Only one stock mounting shock allowed per tire / corner
- Shocks can be OEM or after market.
- No adjustable shocks or bearing mounted ends allowed.
- All shock bottoms must remain stock and in stock location.
- All top mounts may be relocated but mount remain stock. (exception see rear shock section).
- **All shocks must bump and rebound completely with internal stops. Teams must supply tech with any shock upon request.**

## FRONT SUSPENSION

- Rated springs are allowed
- Front spring alterations ALLOWED.
- ALL OTHER PARTS MUST REMAIN STOCK. No lightening of components.
- **Spring spacers allowed, but must NOT be adjustable. Spacers DO NOT need to be equal height. Must have a window cut into the spring pocket for easy tech.**
- A-ARMS:
  - OLDER Chev models top can be shimmed out as needed but the bottom "U" bolts can be moved 1 hole outwards. In other words pull U bolt and rotate 180 deg. Drill new hole and drop in.
  - NEWER models upper arm mounts may be moved as need for desired castor / camber.
    - NOTE "A" arms cannot be bent in any shape or form. SAFETY FIRST.
- "A" frame bushings – stock OEM **or OEM replacement**. No offset/adjustable bushings allowed.
- **All frame bumpstops must be removed.**

## REAR SUSPENSION

- Rear suspension MUST be leaf spring ONLY.
- **The use of rear leaf spring lowering kits is allowed (lowering shackles and front mounts). Lowering shackles cannot be the threaded style (i.e. quick adjust). Front lowering mount must use existing holes and not change vehicle wheelbase.**
- **No cambered rear ends.**
- Upper shock mount may be located above box floor with frame mounted bracket and shock factory style mount.
- **Maximum 2 in. of box floor removed around complete assembly.**
- **Bump stops must be removed off of frame and axel if they were factory equipment.**

## RT5 DRIVE TRAIN TRANSMISSION

- ANY O.E.M transmission allowed.
- ALL automatics must have **OEM or OEM replacement** functioning torque converter.
- ALL pressure plates and clutch discs MUST be OEM stock sizes for year / model of truck (no aftermarket miniaturized assemblies).
- No multiple disc assemblies.
- No racing clutch assemblies allowed.
- NO ram clutches
- Trucks with manual transmissions MUST have an explosion proof scatter shield of ¼ inch material installed over clutch and flywheel area.

- NO aluminum flywheels.

#### REARENDS

- Rear ends ALLOWED are posi-track, welded, mini spools or full spool.
- OPTIONAL 9" Ford rear ends. . MUST use spring perches off stock rear end housings
- NO lightened gears.

#### DRIVESHAFTS

- All trucks MUST have steel, 360-degree driveshaft retainer hoop, ¼ inch thick by 2 inches wide, MUST be positioned at the front of drive shaft and within SIX (6) inches of U-Joint
- Driveshaft MUST be painted white.

#### BRAKES

- All trucks MUST have stock four-wheel brakes IN GOOD WORKING CONDITION.
- ALL brake parts must be OEM or OEM replacement.
- NO rear wheel disc brakes unless stock for year and model of truck.
- NO aftermarket brake assemblies.

**Note: Periodic brake checks will occur.**

#### RT6 STEERING

- ALL components and mounts MUST be steel, unaltered OEM in stock position.
- NO Steering quickeners ALLOWED.
- Steel steering shaft and u joints ONLY.
- Steering wheel disconnect MANDATORY.
- Steering wheel impact pad MANDATORY.

#### RT7 TIRES AND WHEELS

- Hossier 800 series tires only.
  - Each registered car will be limited to a maximum of 12 race tires, per race season (this includes any MHARA points event during each race season). Each tire must be scanned by track official before it's raced and only these tires can be used during or after qualifying for all race events (you can practice on whatever you want). Randonne checks will be done and if you're caught with a tire on your car not designated to you, that car / truck will be DQ's and lose all that day's points for the first infraction. If you have damaged a tire during an on-track incident and it's deemed not safe to race on, the tech official may allow you another tire but the damaged tire will come out of your allotted tires.
- Must run the same 4 tires you qualify on all night. Tires can be moved around on truck but same 4 must be run all night UNLESS driver has prior approval from tech (due to flat, damage, etc.).
- MAXIMUM 15" x 8" wheels.
- Steel racing rims allowed.
- NO aluminum rims
- No softening, conditioning, spying, or grooving of tires. Grinding or cleaning with an abrasive disc is allowed.

#### RT8 SAFETY

##### ROLLCAGE

- Electrically welded ONLY. Brazing or soldering NOT ALLOWED.
- Low carbon or mild steel.
- Main cage must consist of continuous hoops minimum 1.75" OD tubing with a MINIMUM wall thickness of 0.095"
- MINIMUM four-post roll cage REQUIRED.

- Front down bars and rear hoop MUST be welded to OEM frame (should locate cage to cab of truck and cab of truck to frame)
- Driver's head MUST NOT protrude outside cage with helmet.
- Front hoop allowed. Same material / size as main cage specs and a max of 4 down bars per side.
- Rear hoop MUST have "X" brace, consisting of one full horizontal and one full diagonal bar, MINIMUM 1.25 " OD with 0.083" wall thickness.
- MUST consist of one horizontal dash bar connecting the two down bars. **Must have 1 diagonal bar from top corner (behind driver's seat) to opposing bottom corner (passenger side).**
- Passenger side front down bars MUST be a MAXIMUM 11" in from top of door. Minimum 36" between front and rear down bars at top of door panel.
- ALL roll cages on super cab trucks to be no more than 6" behind the door post.
- 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

- **Approved racing seat is mandatory, either composite or aluminum.**
- **Seat must be attached to roll cage**

### ROLL BAR PADDING

- **All roll bars within driver's reach while belted in, must be covered with approved roll bar padding.**
- **Any sharp edges must be removed or padded.**
- **Highly recommended to also pad steering wheel shaft, mounts, and bearings.**

### SEAT & BELTS

- A quick release five or six point approved racing SAFETY BELTS are required.
- MINIMUM belt width is 3 inches, 2 inches for the anti-sub belt.
- Belts MUST be mounted to cage.
- Belts to be MAXIMUM 5 years old.
- Tech has the **authority** to disallow worn/weathered/damaged or stretched seat belts in competition.

### FUEL CELLS

- Fuel Cell MANDATORY. NO STOCK GAS TANKS.
- One fuel cell per truck—**single pick up only.**
- Maximum – 88 liter fuel cell (22 US gallons).
- ALL fuel cells MUST be equipped with a "flapper valve" style filler roll over valve or recommended aircraft style filler cap.
- Fuel cell MUST have a "roll-over" valve in vent line.
- Fuel cell MUST be totally enclosed in close fitting steel structure constructed using 22 gauge steel.
- **Fuel cell to be securely mounted on truck box floor.**
- Structure MUST be secured using a MINIMUM of two (2) solid steel straps. NO PERFORATED STRAPS.
- Straps to be bolted. NOT WELDED.
- **Fuel cell MUST NOT be recessed into box floor**
- **Fuel cell MUST be located between the frame rails, and no closer than 12" from rear of box floor / tailgate.**

### BATTERY

- One 12 Volt battery per truck.
- MUST be securely mounted in a marine type battery box.
- **Battery MUST be a Gel Cell or AGM type**

- Battery **MUST** be located in truck box between frame rails, no closer than 12" from rear of box floor, and no closer than 12" to fuel cell.
- NO exposed wiring will be allowed.

#### **MASTER DISCONNECT SWITCHES**

- A battery disconnect switch located in reach of both the driver and safety crew is MANDATORY. Highly recommend in cab on drivers left side front. Optional 2 switches but drivers front being primary.
- OFF AND ON positions MUST be clearly marked.
- Must be highlighted with day glow paint

#### **WINDOW NETS**

- Window nets on driver's door MANDATORY.
- MUST be nylon ribbon or fine mesh type.
- 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 inset constructed of driver window so that mechanism will not be damaged in case of rollover.

#### **FIRE EXTINGUISHERS**

- Minimum of one fully charged 10 lb dry chemical fire extinguisher required in pit area per truck. **Minimum** of one 20 lb fire extinguisher for two trucks pitting side by side.
- Fire extinguisher must be visible and accessible at all times.
- Fire extinguisher must be serviced and tagged within the last 12 months.

#### **TOW HOOKS**

- Every truck MUST have a tow hook on both the front and rear of the truck which is capable of lifting the truck.
- Tow hook MUST be large enough to allow easy hook-up of tow strap / cable / hook.

### **RT9 DRIVER'S SAFETY EQUIPMENT**

#### **HELMET**

- ALL helmets MUST be full face "SA 2010 or newer" rated
- Some form of head / neck support MANDATORY
- Head and Neck restraint device mandatory for 2016

#### **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 AND IN GOOD CONDITION 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.

### **RT10 NUMBERING**

- Truck numbers MUST be a minimum of 16" high on each door and the roof with a minimum 2-1/2" width.
- Roof numbers MUST have the bottom of the number on the passenger side of the truck.
- NO foil or metallic numbers allowed.

- Truck number MUST contrast with truck color.
- Driver name MUST be on roof above driver door.

#### **RT11 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.

#### **RT12 COMMUNICATION DEVICES**

- NO transmitting or listening devices ALLOWED in truck except track mandated race receivers.
- NO electronic monitoring computer devices capable of storing or transmitting information except for tachometer allowed in truck.
- 1 wireless camera ALLOWED but must be securely mounted in the front passenger side area, NOT within driver's reach.

#### **RT13 TRANSPONDER UNITS**

- Transponder units MANDATORY.
- Transponders to be located 125" behind forward most point of truck front bumper.
- Inside right side frame rail suggested.

**ONCE AGAIN ANY ATTEMPTS TO "BEND" OR TAKE ADVANTAGE OF "LOOPHOLES" WITHIN THESE RULES WILL NOT BE TOLERATED. YOUR TRUCK WILL NOT RACE OR ON THE SPOT DISQUALIFICATION AS PER ANY AUTHORIZED M.H.A.R.A TECH / BOARD MEMBER.**

**Renegade President**

