

## **SECTION – 5 MODIFIED DIVISION – 2021**

Open to two-wheel drive American automobiles, provided they comply with, and adhere to, specifications as outlined for this division.

### NOTICE

ALL EQUIPMENT IS SUBJECT TO THE APPROVAL OF BEAVER DAM OFFICIALS. NO EQUIPMENT WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THRU INSPECTION UNNOTICED. EFFORTS TO TAKE ADVANTAGE OF “LOOP HOLES” IN THESE RULES WILL NOT BE TOLERATED. ALL RACE CARS ARE SUBJECT TO INSPECTION BY TRACK OFFICIALS AT ANYTIME.

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 complied with these rules. No expressed or implied warranty of safety shall result from publications 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 race director shall be empowered to permit reasonable and appropriate deviation from any of the specifications herein or impose any further restrictions that in his opinion do not alter the minimum acceptable requirements. No expressed or implied warranty of safety shall result from such alteration of specifications. Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final.

Numbers are required on the door or quarter panel and must be at least 20" tall and 4" wide. A number is required on the roof, readable from the right side, and must be at least 30" tall. Numbers must also be on the front and back of car for ease of lineups, and be at least 4" tall. NO METALLIC OR HOLOGRAPHIC NUMBERS WILL BE ALLOWED. No Roman numerals allowed. Numbers need to be of contrasting color to the main color scheme. If there are double numbers, a letter will be assigned to you by the track to go with your number. If a letter is required with the car number, the letter must be at least fifty percent (50%) of the height of the number. IT IS THE RESPONSIBILITY OF THE DRIVER TO ENSURE THAT THE SCORERS CAN READ THE CAR NUMBER. IF YOUR CAR NUMBER IS NOT READABLE FROM THE SCORING TOWER, THE CAR WILL NOT BE SCORED UNTIL THE NUMBER IS CORRECTED.

Beaver Dam reserves the right to assign car numbers, and to assign or restrict the display of graphics and advertising on race cars. Offensive graphics or slogans are not permitted. All Competitors agree to accept Beaver Dam's decision in this matter.

Where required, participating sponsor's emblems, or decals will be placed in the position designated by Beaver Dam Officials. Cars that do not display all required sponsors emblems, or decals, will receive less prize money.

All cars in competition are required to have a working Westhold transponder (silver side facing the track). The front of the transponder must be placed at on the rear of the motor mid plate. The transponder pouch should be placed horizontally, with a clear view to the ground. If the transponder pouch is mounted to round tube frame components with nylon ties, the transponder pouch should be secured so that it cannot spin from its horizontal position. Failure to comply with transponder requirements will result in a penalty. Penalties will be imposed in accordance with **SECTION 4 - PENALTIES**. No switches permitted on transponder power supply.

## **5.1 SAFETY EQUIPMENT**

A full face, Snell-rated, SA2010, SA2015, SA2020 or SFI 41.1 or newer and better rated for auto racing helmet and face shield is required. Helmet and face shield must be worn at all times car is on the track and must accompany vehicle at time of inspection. Roll bar padding required in driver compartment (Fire retardant recommended). SFI-approved full fire suit, fire retardant gloves, and shoes required. Neck brace optional. Drivers not wearing a neck collar will be required to wear a fire-retardant head sock. Right and left seat head supports required if using head restraint system or neck collar.

*Recommended:* Fire retardant head sock and underwear (**Mandatory** for driver under the age of 18); head and neck restraints; collapsible steering shaft.

Driver-side window net required, minimum 16-inch by 20-inch ribbon or mesh style, and must be mounted to roll cage so latch is at top front of window. Window net must be mounted in a position to protect driver, the window net must be up, and latched at all times the car is on the track. Maximum 4" high, visor attached to window net. Minimum three-inch (two-inch with head restraint system) wide SFI-approved five-point safety belt assembly, or Beaver Dam approved safety restraint system, required (Y-type shoulder harness not allowed), must be mounted securely to roll cage, and be date stamped 2019, or 2020, 2021 or as dated for expiration by the manufacturer. Shoulder restraints must mount to main roll cage, not permitted on rear frame. Kill switch required within easy reach of driver and must be clearly marked 'OFF' and 'ON'.

A Raceceiver model SW1600 or equivalent, tuned to channel 250 (453.1125) is mandatory. Raceceiver unit must lock on one channel only, no scanner units. Failure to comply with Raceceiver requirements will result in a penalty. Penalties will be imposed in accordance with **SECTION 4 - PENALTIES**.

## **5.2 FRAME**

1964 or newer OEM perimeter American rear-wheel drive passenger car frame only. No sports car frames. Frame must be full and complete, cannot be widened or narrowed, and must be able to support roll cage on both sides. Exceptions are: weight jack in original center line of spring tower allowed; frame may be cut a maximum 36-inches forward from center of rear end housing; horns may be removed in front of steering box and notched maximum one inch at bottom for tie rod clearance; front crossmember may be notched and boxed for radiator and/or steering clearance; maximum seven inch wide opening in side of spring tower for spring removal. Maximum two inch wide by four-inch-tall frame stiffener may be welded directly to outside of left side frame rail. Top of left frame rail may be removed inside driver's cockpit area. Minimum wheelbase 108-inches, maximum 112-inches, both sides. Maximum overall width shall not exceed 78-inches from outside of tire to outside of tire. No part of frame or body can be lower than four inches from ground except front crossmember and rear frame underslung.

### **5.3 ROLL CAGE**

Must consist of continuous hoops, minimum 1.75-inch O.D. tubing, with minimum wall thickness of 0.095-inch for main cage, frame-mounted in at least six places, *low carbon or mild steel recommended*. Must consist of a configuration of front, rear and top hoops connected by tubing on sides or side hoops. Driver's head must not protrude outside cage with helmet on. Roll cage must be securely supported and braced with minimum one cross bar in top halo. Foot protection bar required. Main cage no further forward than rear of engine. All bars forward of cage must be lower than hood.

### **5.4 DOOR BARS**

All driver side door bars and uprights must be minimum 1.5-inch O.D. with 0.083-inch wall thickness. Minimum three driver side door bars, parallel to ground and perpendicular to driver, and welded to front and rear of roll cage. Passenger side must have at least one cross door bar, horizontal or angled, minimum 1.25-inch O.D. with 0.083-inch wall thickness, and one top horizontal door bar, minimum 1.5-inch O.D. with 0.083-inch wall thickness. Steel door plate, 18 gauge or 0.049-inch minimum thickness, must be securely welded to outside of driver side door bars and cover area from top door bar to bottom door bar and from rear hoop down-post to five inches in front of seat. Must be visible for inspection.

### **5.5 BODY**

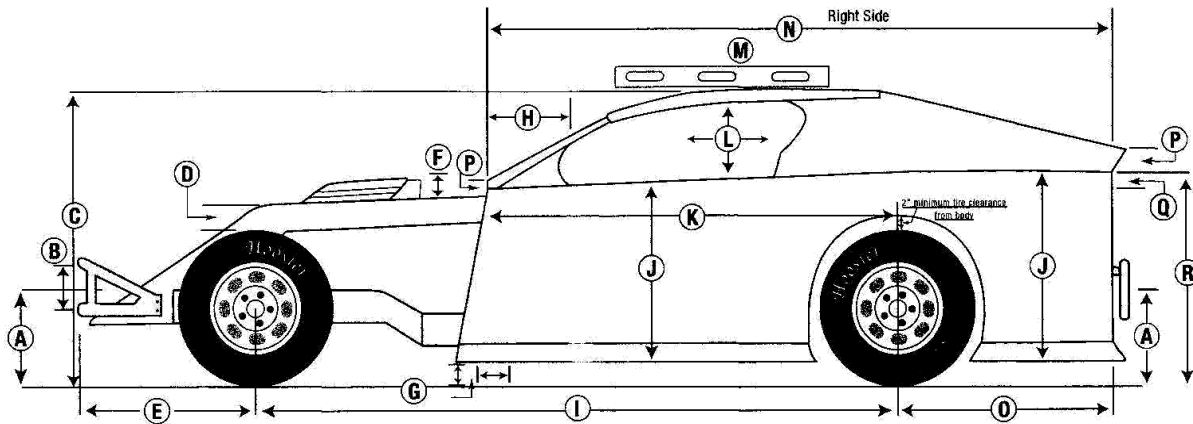
No composite or plastic body panels allowed except roof rock guard, hood scoop and nose piece. Body and interior deck must be same width, front to rear, and parallel to OEM frame. Aluminum nose panel must be flat with maximum 2.250" fins allowed. Plastic nose MD3 part #020-410 allowed. Cooling holes allowed. Nose panel may be no wider than two inches outside of front frame horns. Nose panel must remain within confines of front bumper. Nosepiece must be mounted in an approved manner, and extend no further back than the front edge of the hood. Nose must be the same width front to rear. Nose may not be higher than front, top of hood. Plastic valance permitted. May not extend more than 4" below the bottom of the frame horns. Engine compartment must remain open (no side panels). Hood must be level or sloped down at front and be enclosed at rear. No reverse hood rake allowed. Hood can be no more than 2" higher than interior deck at the rear edge. Hood must cover the radiator. No panel in front of right door to engine compartment. No inner panels. No car covers. Must have front windshield and rear window support posts. Driver and passenger side windows must have at least 12-inch opening (height and width), measured at center of window, between lowest point at top of window, whether roof or roll cage, and highest point at bottom of window, whether interior or body. Sail panels may not extend ahead of back of seat. All sail panels must be solid, no open sail panels permitted. May use Lexan in sail panels. May use full windshield. Roof must be fiberglass or aluminum, full size and rounded down in all directions. No dished roofs allowed. Driver roof hatch allowed. Maximum 1.5-inch rolled down rock guard allowed on roof front. Maximum four-inch roof sides allowed. Maximum one-inch ridge down sides of roof. Maximum one-inch rear roof stiffener (must face down). Roof must be mounted within 1/2" of roll cage. No raised or elevated roofs permitted. No fins, lips, wings, spoilers or air controlling devices. Maximum four-inch plastic skirting allowed on bottom of doors nose, and quarters. No reflective doors or quarter panels. On both sides, body may be maximum one inch outside of rear tires for clearance. Rear spoiler allowed when utilizing GM604 crate motor. Spoiler must be of a one-piece design. Spoiler to be no more than 2 inches tall, measured tip to base. Maximum sixty-six inches wide. Maximum of one 1" spoiler stiffener permitted, minimum 1" down from

the top. One spoiler support permitted, maximum 2" x5" triangular design. No full or partial car covers at any time in pits except for rear tail cover in personal pit area only. Rear tail cover must be positioned at taillight panel and be vertical only.

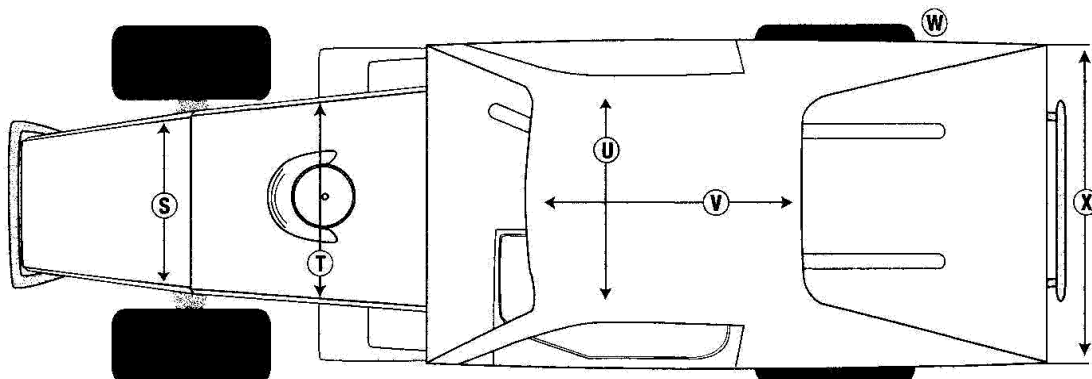
### Modified Body Dimensions

- A 20" max. 16" min. (ground to center of bumpers, front and rear)
- B 6.5" min (center to center)
- C 54" max. roll cage, 56" max roof height 42" min.
- D 6" max. Hood drop (sides), sealed off from driver's compartment and max. 6" rake.
- E 36" max.
- F 6" max. Scoop cannot extend past front of hood.
- G 4" min. Door may extend maximum 6" past block at bottom on both sides.
- H 19" max. Must be same on both sides
- I 112" max. 108" min.
- J 31" max. 27" min.
- K 72" max. or not past back of block, at top. Left side may extend forward to cover foot box, if necessary.
- L 18" max. 12" min. opening, both sides.
- M With level, must have no more than 2" clearance at rear of roof, and 5" at top front.
- N 120" max. 106" min.
- O 48" max. 34" min.

- P 4" max. at front and rear, gradual slope from roof to this point
- Q Interior slope is 6" max. front to rear and flat across. If flat at front half of interior, you have used up 50% of your 6". So, from behind driver to rear, you may only have 3". Optional escape hatch allowed.
- R Top of interior must be flush with top of door and quarter panels. An optional escape hatch from driver to passenger door, to provide 12" opening, allowed.
- S 38" max. 28" min.
- T Min. 24" nose. Must be flat and flush with sides.
- U 66" max. 24" min. No narrower than radiator, must cover radiator.
- V 52" max. 44" min.
- W 56" max. 50" min.
- X Body may be 1" past tires on both sides
- Y 66" max. 53" min. measured at top of interior deck Must be same front to back.
- Z \*\*Rear panel - 8" min. / 90-degree angle. Must be solid, attached to deck, extend to quarter panels, and securely fastened.
- AA \*\*Sail panels - Must extend from roof to rear of car and be same on both sides. May extend maximum 2" past rear edge of interior deck. Must mount to outside of, and be no wider than interior deck. Must mount under and inside of roof sides. Must mount within 2" of outside edge of interior deck.

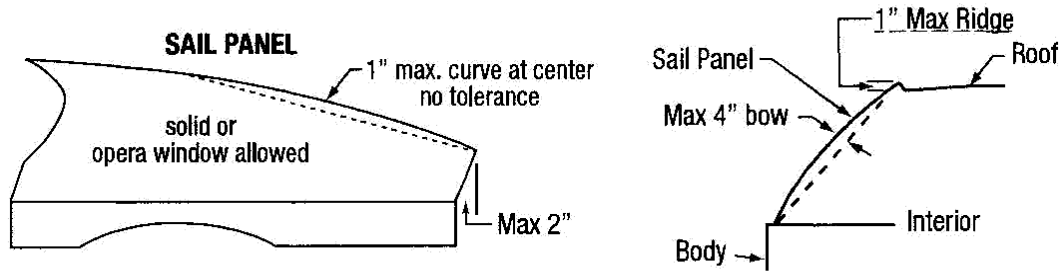


All body measurements are max. unless otherwise specified. Dimensions have zero tolerance.



. No expressed or implied warranty of safety shall result from alterations of specifications. All interpretations or deviations of these rules are left to the Beaver Dam Officials. THEIR DECISION IS FINAL!

**Sail Panels**



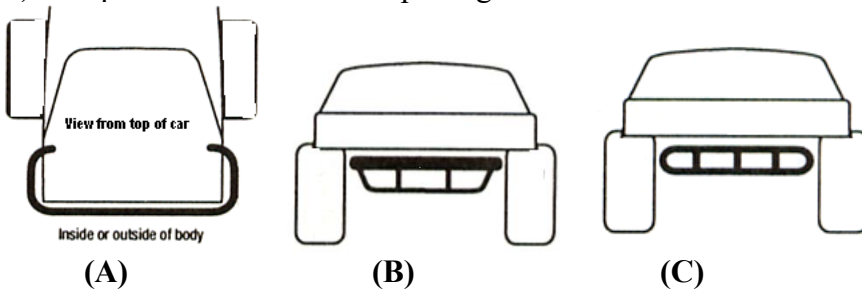
See Tech Staff for additional sail panel examples.

Rear bumper must resemble one of the following designs.

(A) Solid bumper of square or round tubing, no wider than five inches outside each frame rail. The ends of the bumper must be capped.

(B) If rear bumper is wider than five inches outside rear frame rails, it must be capped, with no sharp edges, and bent forward on the ends at 90-degree angle. The ends of the bumper must be attached to the frame rails.

(C) Bumper constructed in a loop design.



**5.6 DRIVER COMPARTMENT**

Must have minimum three windshield bars in front of driver. Lexan or aluminum cowl panel in front of driver can be no wider than cockpit and no farther back than steering wheel. Minimum 0.125-inch aluminum, or 0.060-inch steel, complete floor pan required. Aluminum high-back seat only and must be bolted in, using minimum 0.375-inch bolts, next to left side frame rail and ahead of rear tires. Bottom of seat can be no lower than bottom of frame rail. Driver must be sealed off from track, driveline, engine, fuel cell, cannisters and pumps. Oil coolers must not protrude above interior. Oil Accumulators (Accusumps) cannot be mounted in the driver's compartment. No driver-adjustable devices allowed while car is in competition except brake adjuster. No mirrors of any kind.

## **5.7 FRONT SUSPENSION**

All components must be steel, unaltered OEM, in OEM location, and replaceable by OEM parts, exceptions are: tube-type upper A-frames with or without aluminum or steel cross shaft, and mounts can be moved; stamped steel OEM replacement lower A-frames; rubber, nylon or steel lower A-frame bushings, no offset or bearing type; welded or bolted shock mount on lower A-frame; OEM or OEM replacement ball joints allowed. Lower A-frames must be right and left, and of same design. Lower A-frame mounts and bolt holes on frame must be within OEM specifications. No screw in style lower ball joints permitted. Sway bar must be unaltered OEM. No bump stops, or suspension stops of any style permitted. Drop chains permitted. Chain must mount from frame rail to lower A frame. Chain must be slack during inspection. No unapproved suspension stops of any manner permitted.

## **5.8 STEERING**

No rack and pinion. All components must be steel, unaltered OEM, in OEM location. Exceptions are outer tie rod end and adjustment sleeve may be replaced by a minimum 0.625-inch steel rod end and steel tube; spindles can be ground for brake caliper clearance only; unaltered, OEM Pinto spindles or OEM replacement Pinto spindles with 'IMCA' raised cast allowed; bolt on spindle savers allowed. Speedway Motors IMCA approved; multi-piece spindles allowed. Steel steering shafts and knuckles only; driver compartment steering may be modified, must be kept on left side. Spindles must be right and left, and of same design. Quick release required - steering quickener and steering wheel may be aluminum. Idler arm, pitman arm, and center link must match frame.

## **5.9 SHOCKS**

One steel, nonadjustable, unaltered shock per wheel. No through rod shocks permitted. One additional shock allowed in lift- or pull-bar area. No external or internal bumpers or stops. All shocks must completely collapse upon inspection at any time. Maximum 7" stroke front shock and maximum 9" stroke rear shock. No shock may be used to preload or pin any spring. No threaded body, front coil-over, air, or remote reservoir shocks. No Schrader or bladder type valve allowed. Front half may be shielded. One or all shocks may be claimed per event for \$50 each. Beaver Dam reserves the right to claim any shock for \$50. Claim must follow claim procedure in **Section 3.9**

## **5.10 SPRINGS**

One steel, non-progressive, closed end coil spring per wheel only. Steel or composite leaf spring allowed. One additional spring allowed on pull bar or lift bar, may be progressive. Any coil spring must be at least 4.5-inches O.D. Front spring must measure 9 1/2" in height. Rear spring must be between 11" to 16" in height. 1/2" tolerance on spring heights. No torsion bars, air bags, inner liners or spring rubbers allowed.

## **5.11 REAR SUSPENSION**

No independent rear suspension. All components must be magnetic steel. No covers allowed. All trailing arms/link bars must be solid tubing. Rear of frame may be altered to accept leaf or coil springs. Steel coil-over eliminators, or steel or aluminum coil-over kits allowed - must conform to shock and spring rules. Coil over eliminators and shock absorbers must be mounted to birdcage or bracket and mount to upper frame rail. Only spring using jack bolt may be mounted to top of axle housing. One mechanical traction pull bar allowed. Lift bars or 5<sup>th</sup> arms

will NOT be allowed. No brake bars. Rubber bumpers allowed only on panhard bar and mechanical traction bar. No sway bar. No suspension stops of any style permitted except for safety chains. Solid safety chains, cables or tethers permitted frame to axle housing only (cannot be mounted to any floating device), no springs or rubbers allowed. Safety chains must have slack during inspection. Minimum 19 inch long panhard bar, measured straight line, center to center. Permitted mounting configurations are: one link, solid mounted to axle tube or one floating birdcage with upper and lower links.

## **5.12 REAR END**

Any steel approved OEM passenger car or truck rear end (housing and carrier) allowed. Safety hubs (floater) allowed. All components must be steel, except lowering blocks, axle cap, drive flange. Full steel spool, steel mini spool or welded rear ends only. Steel axles only. No quick-change devices, heavyweight axle tubes (.250 wall max. thickness) housing braces or cambered rear ends. One-piece drive flange only. No torque dividing differentials. No scalloped ring gears. Steel axle tube quick change allowed. Quick change must use 10" ring gear with aluminum or steel spool. Quick change must use minimum one-inch-wide spur gears and bolt on rear cover. Safety hubs (floater) allowed. Steel axles only. Any additional components must be steel, except lowering blocks, axle caps, U-joint caps, and one-piece drive flange. One-inch inspection hole required in housings. No torque dividing differentials, scalloped ring gears or cambered rear ends. Magnesium center section permitted on QC rear.

## **5.13 BUMPERS**

Steel bumpers must be on front and rear at all times and welded, or mounted with minimum 0.375-inch bolts. Rear bumper may be a maximum of six inches beyond rear deck.

Rear bumper must be constructed of solid square, or minimum 1.25-inch O.D. tubing with 0.095-wall thickness, and – similar to diagram - no wider than five inches outside of rear frame rails. Fuel cell protector must be vertical to rear bumper. If wider than five inches outside rear frame rails, must be capped and bent forward 90 degrees, or constructed in a loop design. Must have at least one upright, minimum 1.25-inch with 0.065 wall thickness, from bumper to fuel cell guard.

Two-bar front bumper must be minimum 1.25-inch O.D. tubing with minimum 0.065-inch wall thickness (maximum 0.095-inch) mounted frame-end to frame-end, no wider than width of material outside frame horns and with bottom loop parallel to ground. Top bar must be directly above bottom bar, minimum 6.5-inches apart, measured center to center.

## **5.14 TIRES/WHEELS**

Must use unaltered Hoosier Race tire, G60-15 with IMCA stamped on sidewall. Plated tires only. No chemical softening, conditioning, or grooving of tires. Original configuration of factory tread pattern must not be altered. Tires may be ground or straight siped within confines of tread (not past factory straight line). No re-caps. All wheels must be unaltered magnetic steel, 15-inches diameter, 8-inches wide, minimum shell thickness 0.095-inches, and minimum 19.0 pounds. No wide-five-wheel adapters allowed. Aluminum, spacers only. May use bead lock, on right rear only. External, steel bead lock only and it cannot make wheel any narrower than 8-inches and no wider than 8.75-inches. Must use only magnetic steel bolts. Mud covers allowed on right side wheels. Mud plugs must have car number. Disc style wheel covers must have

unbalancing foam installed. Steel bolt on mounting hardware required. Bolt on mounting tabs must be integral to the wheel or bead lock or be securely welded to the wheel. Aluminum inner mud cover allowed on left rear only. Rim-mounted bleeder valves allowed. Magnetic steel lug nuts only. A MINIMUM TIRE PRESSURE OF 12 LBS WILL BE ENFORCED ON THE RIGHT REAR. Tire rubber samples may be taken for inspection at any time for further inspection in accordance with sampling procedure is section 3.6.

#### **5.14.1 TIRE DUROMETER LIMIT**

Five cars will be selected, at random, prior to the start of qualifying races. Durometer readings will be taken at three points across the rear tires (outside, middle, inside) of each car. The readings will be averaged together. The minimum allowable durometer reading of any tire prior to the qualifying races, B Main race, and A Main race will be ninety percent (90%) of the average reading.

Example: Average durometer reading of five selected cars: 50

Minimum allowable reading prior to race: 45

#### **5.15 BRAKES**

Must be steel, approved OEM, operative four-wheel drum or disc. Must maintain minimum OEM dimensions for hubs/rotors and calipers, cannot be lightened. Bolt pattern may be changed. Larger studs allowed. Rear rotors may be aftermarket 0.810-inch thickness (new). Vented rotors only, no scalloped or ceramic coated rotors. No brake shut-off or pressure sensitive devices. One front to rear proportioning device allowed. Brake lines must be visible. Single link brake caliper floater mount permitted. Only one per side permitted.

#### **5.16 EXHAUST**

Round tube headers only. All primary header tubes must enter directly into one collector at same point at end of header. Collector length maximum 9" long. Turn downs permitted, maximum 10" long. 19" overall max length on combination collector and turndown. Mufflers mandatory at all times car is on the track No anti-reversion collectors or mufflers permitted. Loss of muffler is an automatic mechanical disqualification. 95-decibel limit 100 feet from car. All exhaust must go through mufflers, two per car, one per header. No merge collectors, extensions, inserts, cones or balance tubes. No exhaust sensors. Pan evac systems allowed. Valve covers and headers may be modified for use of pan evac systems.

#### **5.17 FUEL SYSTEM**

Mechanical or belt driven fuel pump only and must be mounted at front of engine. Racing fuel cell required, maximum 32-gallon capacity, must be in minimum 20-gauge steel container. Cell must be securely mounted behind rear axle, between rear tires, minimum of four inches ahead of bumper, minimum of ten inches above ground. Must mount with minimum two solid steel straps around entire cell, two inches wide and 0.125-inch thick or one-inch square tubing. All cell mounts must be steel, securely welded to frame/cage. Protective tubing must cover rear and extend past both sides of cell. Fuel cell protector must be vertical to rear bumper. No part of cell shall be lower than protective tubing. Fuel cell vents, including cap vent, must have check valves. If fuel cell does not have aircraft style positive seal filler neck/cap system, a flapper, spring or ball type filler rollover valve is required. Pick-up must be on top or right side of cell. Limit of one fuel filter. No cool cans. Air cleaner top/stud cannot direct air into carburetor. No top flow air cleaner housings or cold air boxes. One naturally aspirated two- or four-barrel



carburetor only. One carburetor adapter/spacer allowed, maximum 2.20-inches thick, including gaskets. GM crate motor if using a spacer must use unaltered carb spacer Moroso # 64940 or Speedway motor # 545-64940. No adjustable throttle bore carburetor spacers.

### **5.18 FUEL**

Gasoline or 99.9 % pure methanol. No E85 or E98 permitted. Racing fuel allowed. NO nitrous oxide. NO performance-enhancing additives. Upper cylinder lube allowed with alcohol only.

### **5.19 WEIGHT**

Minimum weight limit of 2,450 pounds, no tolerance, after race with driver in car. No weights and/or loose objects in driver compartment, above interior deck, or outside body. Weights must be securely mounted to frame or roll cage and painted white with car number on it. Must be attached with at least two 0.50-inch bolts. No titanium, magnesium or carbon fiber products. Only carbon fiber components allowed are rock guard and hood scoop. No gun-drilled, tubular, hollow bolts or studs. Steel fasteners only.

### **5.20 BATTERY/STARTER**

One 12-volt battery only, must be securely mounted between frame rails, and positive terminal must be covered. No lithium batteries permitted. Car must have capability of starting without being pushed or pulled. Car must leave initial staging area on demand, unaided, or go to rear of that race. Reverse-mount starters with OEM case transmissions only, see transmission rules for specifics.

### **5.21 GAUGES/ELECTRONICS**

No unapproved, transmitting or listening devices No cell phones permitted in racecar. The exception is one-way Raceceiver radio and scoring transponder as used by Track Officials. Timing retard controls, or digital gauges (including tach) are prohibited. Securely mounted cameras permitted, providing they do not provide any images of suspension components or movements. Competitors are responsible for any liability from publishing any videos. No electronic monitoring computer devices capable of storing or transmitting information except analog tach. All cars must use a, Beaver Dam approved maximum 7800 rpm rev-limiting chip. Rev-limiting chip must function as designed. This may be accomplished using one, non-adjustable, 12-volt ignition box with one high-end rev limiter setting or an internal setting inside box, MSD #8728 rev control, 8727ct, or MSD #8738 additional rev control box allowed. Other limiting systems may be approved by contacting Beaver Dam Technical inspection officials. No additional ignition accessories allowed. All components must be out of reach of driver, but accessible for inspection. No magnetos or crank triggers. No electronic traction control devices. Upon request from a Beaver Dam Technical Official, a driver must surrender any ignition component for inspection and certification by the original manufacturer. GM604 Crate motor must run 6400rpm rev limit chip or setting.

## **5.22 TRANSMISSION/DRIVESHAFT**

Must have at least two forward gears and one reverse, plus a neutral position. With engine running and car in still position, must be able to engage car in gear and move forward, then backward. OEM production type or approved aftermarket transmissions allowed - two-speed, three-speed, four-speed and automatic. No five speed (or more) transmissions, 'in and out' boxes, ball spline or quick-change devices allowed. Functioning shift levers must be in OEM location on all OEM production type transmissions. All belt drive pumps must be mounted on front of engine. Flex plates must be full, steel, unaltered OEM, or OEM replacement. Flywheel/flex plate must bolt to engine between clutch assembly and crankshaft and all driveline components within bellhousing must rotate while car is in any gear. Transmission must be one of the following designs:

### **OEM Manual**

Must have a standard OEM case and working disc-type clutch or approved cone or disc-type coupler inside an explosion-proof steel bellhousing. One flywheel only, minimum 8.5-inch diameter. Diameter of clutch disc must be a minimum of 5.5-inches. Clutch assembly must be steel, except housing, which must be steel and/or aluminum. Bellhousing can have only a hole for throw out bearing lever or hose, must be 270-degrees around top of clutch and flywheel area. Standard or reverse mount starter allowed, must directly engage flywheel.

### **Automatic**

Must remain in OEM or OEM replacement case, with a functioning OEM appearing pump. Aluminum OEM bellhousing may be replaced with aftermarket explosion-proof aluminum bellhousing. Original OEM bellhousing must have approved scatter shield constructed of minimum 0.125-inch by three-inch steel, 270-degrees around flex plate.

### **Aftermarket Manual**

Must have aluminum case, with aluminum internal clutch. Internal clutches made of other materials (e.g. magnesium, composites, carbon fiber, etc.) are prohibited. Must bolt to explosion-proof steel bellhousing, and use full, steel, unaltered OEM or OEM replacement flex plate with starter mounted in OEM location. No coatings or paint allowed on transmission case. No ball spline designs permitted.

### **Drive Shaft**

Minimum two-inch diameter steel drive shaft and must be painted white. Steel slip-yokes only. 360-degree drive shaft loop required and must be constructed of at least 0.25-inch by two-inch steel, or one-inch tubing, mounted six inches back from front U-joint.

## **5.23 ENGINE COMPARTMENT**

Rear of engine (bellhousing flange) must be mounted at least 72-inches forward from centerline of rear axle. Engine offset must be kept within two inches of centerline of front crossmember with engine level. Minimum 11-inch engine height from ground to center of crankshaft. Radiator must be mounted in front of engine. Cooling system may be modified. Overflow tubes must be directed to ground between frame rails. Use of antifreeze is prohibited. Water wetter is permitted.

## **5.24 ENGINE SPECIFICATIONS**

Any American make steel engine block allowed. Aftermarket and OEM performance blocks allowed. Steel heads and oil pan only. Magnetic steel retainers only, no shaft mounted or offset rocker arms permitted. No titanium or exotic engine components permitted. Lifter diameter must

match stock configuration for block being utilized. No mushroom lifers, Roller lifter or flat tappet lifter permitted. OEM firing order cannot be changed. No crank triggers. All engines must be able to be used in conventional passenger car without alterations. Engine mounts cannot be removed or altered. Castings and fittings must not be changed. No machine work on outside of engine. All belt driven accessories must be on front of engine. 'Wet' sump oiling system only. External oil pumps go with engine if claimed. GM crate engine permitted. Crate must use unaltered factory sealed, GM or IMCA authorized rebuilt and resealed or Beaver Dam Raceway resealed rebuilt GM#88958604, #19318604, # 88958602, or #19258602 engine. Rebuilt crate engine must maintain all original specifications and may not be altered in a manner to improve performance. The oil pan may be replaced with Champ pan #cp100lrb and Champ pick-up part #100sb. Installation of these parts must be performed at a facility approved by Beaver Dam Raceway officials. Engine must be inspected and approved by Beaver Dam Raceway officials. Additional seals may be added by officials. Altered or missing seals will result in immediate disqualification, suspension and fine (to be determined by Beaver Dam Raceway officials). Crate engine users must display crate on the a-pillar and are non-claimable. Drivers running crate style engines may not claim. Drivers that switch to a crate after claiming an engine are claimable. A Ford crate or spec engine package is being reviewed and will be approved.

#### **5.25. ENGINE CLAIM – SWAP RULES**

(A) \$550 cash, claim on engine, flywheel and balancing plates plus the engine from the claimer's car used in the A Main race - \$50 of this goes to track for observing removal of the engines.

(B) Claim does not include - 1. clutch, 2. pressure plate, 3. bellhousing, 4. headers, 5. carburetor, 6. starter, 7. motor mounts, 8. oil/temp. sending units, 9. carburetor spacer, 10. fan and pulleys, 11. clutch ball, 12. clutch arm, 13. throw out bearing, 14. dip stick, 15. water pump, 16. fuel pump, rod and plate, 17. distributor, 18. plug wires, 19. water outlet and restrictor, 20. breathers.

(C) First place finisher will report to the winner's circle. Position 2-4 must report directly to claim area. The winner will report directly to the claiming area directly after the winner's circle and victory lap. The first four positions are subject to engine claim by any other driver finishing fifth on back in feature that has not been lapped by the fourth-place driver. Failure to report directly to claim area will result in disqualification and loss of money and points for first infraction (engine is still claimable); will be treated as engine claim refusal for second infraction. Driver allowed one claim ONLY per event, regardless of outcome of that claim. In case of multiple claims on same engine, a drawing will be held to determine which driver gets the engine. Should the first eligible driver withdraw his claim, his claim card is marked, as a claim and the next qualified driver will be allowed the engine claim. The claim is not charged to those drivers not awarded the claim.

(D) Should any driver voluntarily withdraw a legal claim, he/she will be charged with a claim and it will result in a \$200 fine.

(E) Driver making claim must drive his race car immediately after finish of feature, under its own power, directly to claiming area. Only involved drivers and officials allowed in claiming area.

(F) Claims must be made to official immediately after end of feature race, and claimed engine must be completely removed within one hour from time claim is made and driver agrees to sell claimed engine.

(G) Claims must be made to official, and driver must present \$550 cash.

(H) Refusal to sell forfeits all cash and contingency winnings for feature, any trophies earned in feature, plus ALL points in all claim divisions for the season. Any driver refusing to sell engine, when claimed within rules, regardless of his reinstatement, loses his right to claim any driver's engine for 12 calendar months from date of reinstatement. Claim is not charged to claiming driver in case of a refusal.

(I) First refusal to sell will result in loss of ALL points in all claim divisions for the season and will also result in driver being suspended from Modified Division for one race from date of refusal and until \$1,000 cash fine is paid to Beaver Dam. Fine must be paid prior to driver returning to competition. Second refusal to sell will result in driver being suspended from events for 30 days from date of refusal and until \$2,000 cash fine is paid to Beaver Dam. Third refusal results in permanent suspension from the Modified Division.

(J) Once an engine claim has been made and accepted, the engine is not to be started, under any circumstances. The car is to be pushed to the area where removal will take place. Any driver starting a claimed engine will be immediately disqualified from that event and will be suspended from all events until such time as a \$100 fine is paid to Beaver Dam. All claimed engines must be removed from car at the track.

(K) The cylinder block may not be altered in such a way as to prevent it from being used in a stock application. Stock approved OEM components must be able to be immediately used in their stock location. Any sabotage discovered to claimed engine will result in driver being suspended from competition for 30 calendar days and until \$1,000 cash fine is paid to Beaver Dam. Drivers are to be held accountable for any sabotage discovered while pulling the engine and will be responsible for any and all penalties as a result of any sabotage. The claim will be disallowed, and the money returned to the claimer.

(L) Claim is not in effect on opening night and driver must have been at track on opening night to be eligible to claim second night of season. Following that, no driver may claim unless he/she has competed at that track the two previous consecutive sanctioned events.

(M) No one driver may claim any other one driver more than once during current calendar year.

(N) A disqualification will not affect a legal claim. The engine will be pulled and transferred prior to any penalties being assessed.

(O) Drivers are not claimable the first night at the track.

(P) Unsportsmanlike conduct during the claim procedure, or while pulling the engine, will result in an immediate \$100 fine.

### **5.26 EIRI:**

(Except in rare instances) Decisions of Beaver Dam Officials are final and binding without exception. In some cases, track safety rules may take precedence - any discrepancy between operational and divisional rules should be brought to the attention of Beaver Dam officials. Any rule changes or clarifications during the course of the year will be posted and will be considered as an official part of these rules.

**WARNING:** 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. By participating in these events, all participants are deemed to have complied with these rules. **NO EXPRESSED 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.  
Interpretation or amendments to these rules may be made at any time.

The rules and or regulations set forth herein are designed to provide orderly conduct and to establish minimum requirements for the racing events. All participants are deemed to have complied with these rules upon participating in these events. No expressed or implied warranty of safety shall result from publication or compliance with these rules 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 participants.

The Modified Technical Inspector shall be empowered to permit minor deviations from any specifications herein or to impose any further restrictions that in his opinion do not alter the minimum acceptable requirements