# **B MOD RULES 2021**

# SUSPENSION AND CHASSIS

### **SECTION 1: FRAMES**

A. Coil-over front and rear clips or OEM clip be a minimum of 2" x 3" .083 wall rectangular steel tubing for bottom section for main frame rails, from front of firewall to 24" behind Rear axle housing and where main cage joins the frame. It should be plated or gusseted. Main frame rails must be made of .095 2" x 3" rectangular tubing.

### **SECTION 2: A-ARMS**

A. Top and bottom A-Arms must be steel. Aluminum cross shafts and strut supports are allowed.

# **SECTION 3: CHASSIS ADJUSTMENT**

- A. No driver controlled chassis adjustments in cockpit of race car
- B. No independent rear suspension
- C. No open tube rear-ends
- D. No in-board brakes
- E. Brake bias adjustment is allowed
- F. No bump stops allowed
- G. Max 1 ¼' sway bar can be slapper style or 3 piece bar
- H. No torque absorbers, spring or rubber loaded torque arms, pull bar, spring preloader, lift bars, etc. must use fixed suspension components.
- I. Only one spring per wheel allowed, no spring preloaders allowed

# **SECTION 4: SHOCKS**

Steel body non adjustable non rebuildable shock only. One shock per wheel. There will be shock claim in place of \$100 per shock. Denying the claim will result in forfeit of all points and a 1 year suspension of car, driver, and car owner from the time of the claim. Must be a B Mod points driver or car owner to claim.

#### SECTION 5: RACE CAR WIDTH

A. Maximum overall width outer sidewall to outer sidewall is 86"

# **SECTION 6: RACE CAR WHEELBASE**

- A. Minimum wheelbase, center of spindle to center of rear axle is 105"
- B. Maximum overall length from front bumper to rear bumper is 17'-0"

### SECTION 7: RACE CAR WEIGHT

- A. GM sealed 602 (2018 and newer encrypted seals only) 2600 pounds minimum with driver, 59% left side
- B. Steel OEM head engine per rule book 2700 Pounds minimum with driver, 59% left side

# **SECTION 8: RACE CAR WHEELS**

A. Maximum wheel width 10" no minimum width. All wheels must be racing type, no stock type. Steel wheels only.

#### **SECTION 9: ENGINE SET BACK**

- A. Maximum 18" setback as measured from the centerline of front spindles to #1 spark plug.
- B. Engine crankshaft must be centered between frame rails (plus or minus 2")

# **SECTION 10: REAR-ENDS**

- A. Quick-change rear ends allowed
- B. All cars must have floater rear ends
- C. Only full spool, mini spool, or fully welded spider gears allowed., no lockers etc

### **SECTION 11: TRANSMISSIONS**

- A. Manual transmissions must have 2 forward and 1 reverse working gear or automatic transmission no made for racing transmissions, no internal clutch transmissions.
- B. Clutches must be a minimum of 5.5". OEM type clutch assemblies must run 360 degree steel scatter shield. Automatics to have proper safety blanket as well.

# **SECTION 12: GENERAL BODY**

- A. Car bodies: the car body must be an acceptable full modified body with roof and meet the following requirements:
- B. Cars must be neat appearing and interior must be painted
- C. All bodies must be installed on the frame in a manner approved by officials.
- D. The intent of the body rules is to bring together body shapes and designs from the, B-Modifieds, Featherlite tour, IMCA style race cars, NW modifieds as well as other racing organizations in the Northwest into a competitive, compatible group.
  - What we do not want is to have one car stand out as wild or off the wall looking. Our intent is to give builders some latitude to be creative but to maintain the B mod class as an asphalt modified usually looks around the country.
  - With this in mind build your modified race car body using the existing IMCA style cars, NASCAR Featherlite Series, WVSO B-Modifieds and NM Modifieds as your guild line.
  - REMEMBER, given the parameters of track with, wheelbase and the fact that the front tires and the right rear tire must be completely exposed the LIMITS ARE CLEAR.

### SECTION 13: SPOILERS/AIR DAM

### A. REAR SPOILERS:

- a. A solid rear spoiler of a minimum 1/8 inch thick polycarbonate only, must be installed at the rear deck lid and meet the requirements that follow:
- b. The maximum spoiler size permitted will be five hundred square inches. The rear spoiler must not be wider than the standard width of the quarter panels, measured across the top of the quarter panel. The rear spoiler must be installed at the rear of the quarter panel where the rear panels meet the interior sheet metal. During the race, the trailing edge of the rear spoiler must not extend past the rear edge of the rear bumper. Decals or logos will not be permitted on the rear spoilers.
- c. Spoiler braces may be installed, no exotic spoiler braces or wings permitted.
- d. A maximum of thirty-six inches, measured from the ground to the spoiler mounting point will be permitted.

# B. FRONT AIR DAM

a. An approved air dam may be mounted to the front underside of the car. The optional metal or vinyl air dam must be mounted perpendicular to the ground and no more than 3 inches behind the front edge of the nose panel. The front nose must maintain three inches of ground clearance. The nose panel and air dam must not extend past the outside edge of the front frame rails. The air dam must have a minimum ground clearance of two inches. All support brackets must be mounted to the rear edge of the air dam. Horizontal or flat air deflectors must not extend past the outer edges of the front nose panel sidewalls.

# **SECTION 14: WINDOWS/MIRRORS**

# A. WINDSHIELD

- a. A single one piece flat or radiused type of polycarbonate windshield must be used on the driver side.
- b. The windshield must be mounted flush with the cowl or dashboard panel and extend up toward the top of the windshield opening in front of the driver. May use full width windshield.
- c. Decals will not be permitted on the windshield.

# B. REAR WINDOW

a. The rear windows are allowed.

# C. SIDE WINDOWS/WINDOW SCREN

SIDE  $\frac{1}{4}$  Windows ALLOWED. An approved NASCAR style window net must be installed on the driver side window. Window net webbing shall be  $\frac{1}{4}$ " minimum and 1" maximum width. Window net will be minimum 16" x 22". Window net will attach to the roll bars and be secured by an approved fastener. Seat belt latch and detent ball and lever style OK.

# D. REAR/SIDE VIEW MIRROR

a. Only one rear view and one side view mirror will be permitted.

### **SECTION 15: FIRE WALLS**

- A. A front and rear firewall must separate the driver from the engine compartment and the fuel cell
- B. The front firewall must be positioned below the leading edge of the windshield.
- C. The firewalls must be sealed and welded in place.

# **SECTION 16: GRILL/AIR INTATE**

- A. Only screen will be permitted in the opening to allow for proper cooling.
- B. Only metal grill intake housing will be permitted
- C. Total width of nose of car can be 42" wide, maximum, side panel of nose can be 2" above top of nose panel (max).

### **SECTION 17: HOODS**

- A. All cars must be equipped with a hood manufactured from metal or fiberglass
- B. The hood must be manufactured so that it will completely cover the engine compartment from the left side to the right side.
- C. Hood must be fastened with positive pin fasteners evenly spaced across the front and rear of hood.

# **SECTION 18: ROLL BAR PADDING**

A. All roll bars near driver must be padded with approved padding.

# **SECTION 19: STEERING WHEEL**

A. The center of the steering wheel must be padded

### **SECTION 20: KILL SWITCH**

A. Ignition kill switch must be within easy reach of strapped driver

# SECTION 21: ABSOULUTLY NO PRESSURED FUEL TANKS

NO ELECTRIC FUEL PUMPS

### **SECTION 22: FUEL LINE**

A. Fuel line cannot run through interior of race car

# **SECTION 23: OIL COOLERS**

- A. Oil coolers may be used
- B. No oil coolers may be mounted in the driver compartment

# **SECTION 24: BRAKES**

A. MANDATORY: four wheel working brakes, STRICTLY ENFORCED Can use brakes bias control in car.

### **SECTION 25: THROTTLE LINKAGE**

- A. Throttle linkage must have at least 2 return springs
- B. Cable linkage must be of heavy-duty type WILL BE STRICTLY ENFORCED

### **SECTION 26: RADIOS**

A. Radio communications are mandatory between driver and spotter.

# **SECTION 27: TRACTION CONTROL**

A. No traction control devices are allowed. ONE YEAR SUSPENSION and forfeit of all points IF CAUGHT USING

### **SECTION 28: DRIVE SHAFT**

A. One drive shaft retainer fabricated of stout steel material mounted to cross member. Must retain driveline in case of front u-joint failure. Mounted at front half of drive shaft

### SECTION 29: SEATBELT/SAFETY

- A. Seatbelts mounted securely to frame or roll cage must consist of at least 3" lap belt, 3" shoulder harness and crotch strap no older than 5 years.
- B. Personal Driver Safety Equipment: Helmets meeting or exceeding Snell Rating and 2-layer fire suits, recommended, 1 layer must have Nomex underwear.
  Full face helmets only, Nomex gloves, and shoes MANDATORY. Any helmet with Snell Sticker removed will not be considered as meeting minimum requirements. Snell rating of 2000. Head Restraint system mandatory.

### SECTION 30: ON BOARD FIRE SUPPRESSION SYSTEM

- A. All race cars must have functional on-board fire suppression system. NO rubber or plastic tubing allowed on fire system. Control location optional, but must be within easy reach of driver and or safety crew. Must have a current inspection tag. THIS IS MANDATORY ON ALL CARS.
- B. Each pit must have a functioning 5 lb. Fire Extinguisher within easy access of all crew members and safety personnel. MANDATORY.

#### **SECTION 31: DRIVER SEAT**

- A. Seat to be mounted securely to frame or roll cage
- B. Seats to be of metal type only
- C. Right side rib support must be braced.

### **SECTION 32: BATTERY CONTAINMENT**

- A. No batteries in driver compartment
- B. Must be enclosed in leak-proof case if not sealed type
- C. Must be securely mounted
- D. Batter kill switch is MANDATORY, accessible by safety personnel.

**SECTION 33: ENGINES** 

**ENGINE Option 1** 

Factory sealed Gm 602 crate engine. Must be factory sealed 2018 encrypted seals or newer and not tampered with. 2600 lb.

# **ENGINE** option 2

Steel OEM head engine max 360 cubic inch 2700 lb

 OEM cast iron passenger vehicle production block only. NO LIGHTENING of the block No GM Bowtie, Ford SVO or Chrysler W components allowed. GM approved block numbers are: 10105123, 10066034, 3892657, 3914660, 3914678, 3932388, 3932386, 3956618, 3970000, 3970006, 3970010, 3970014, 10066033, 10066036, 10243880, 14010207, 14010209, 14010287, 14016376, 14016379, 10054727, 14088528, 14088548, 14088552, 14093638, 14101148. Stroke must match block. . Maximum 360 cubic inches (GM); 363 (Ford); 370 (Chrysler). OEM or OEM appearing replacement steel crankshaft only - cannot be lightened. No aero wing, bullnose, knife edge, undercut or drilling of second or third rod throws. No stroked cranks. OEM or OEM cast appearing replacement steel rods only – GM 5.7 or 6 inch. Cap screw allowed. No splayed main caps. Conventional hydraulic or flat tappet cam and lifters only, cannot alter lifter bores. OEM firing order cannot be changed (GM: 1-8-4-3-6-5-7-2). May use oil restrictors. 'Wet' sump oiling system only. Steel stock or racing oil pans allowed. CYLINDER HEADS: Steel only. Must be unaltered approved Passenger Car OEM. No GM Performance, vortec or Bowtie. Maximum size valves on ALL GM heads are (2.02 inch intake and 1.60 inch exhaust.); Ford - no SVO heads; Chrysler - no W-2 heads, 360 cubic inch heads only. No pocket porting, polishing or unapproved alterations allowed to any cylinder head or intake. Guide plates, screw-in shouldered studs (GM 0.375 inch max) and poly locks allowed. Roller rockers or roller tip arms allowed. NO SHAFT **ROCKERS ALLOWED** 

All engine configurations are subject to post race technical inspection which could include any of the following: 1. Teardown of motor to a level that allows technical inspectors to check for compliance in every aspect of meeting the engine rules listed in this rules package at every race.

2. Impounding of engine for complete teardown for compliance to rules. 3. Impounding of engine for dyno testing at cost of WVSO for compliance to rules. Failure to comply with any of these requests by track official will be considered an admission of guilt and will be grounds for disqualification. The track can or may confiscate illegal motors and/or Carbs with a \$500 fine issued for car owner to take back possession

There will be an engine claim in place at \$5,000 CASH ONLY. Denying the claim will result in a 1 year suspension of car, driver, and car owner from the time of the claim. Must be a B Mod points driver or car owner to claim.

### **SECTION 34: IGNITION**

- A. OE type or MSD type ignition allowed. Only one ignition box and coil permitted. Must use track mandated rev chip of 6,000 RPM's or less at all times on Crate engines.
- B. No digital ignition boxes

NO TRACTION CONTROL OF ANY TYPE getting caught will result in a 1 year suspension of car, driver, and car owner from the time of the infraction.

#### **SECTION 35: CARBURATORS**

- A. 650 cfm HOLLEY TOOL LEGAL CARB with a max of 1" carb to intake spacer allowed for GM sealed 602 crates
- B. 500 cfm HOLLEY TOOL LEGAL CARB with a max of 1" Carb to intake spacer allowed for Steel OEM Head engines

### **SECTION 36: FUEL**

A. Gasoline or Racing fuel is the only fuel allowed. Subject to tech. no alcohol or nitrous. Maximum octane rating is 115.

### **SECTION 37: TIRES**

A. Only 970 Hoosiers will be used NO EXCEPTIONS! You may have 6 new tires for the 1<sup>st</sup> race and 2 new ones after each race your car races. If you skip a race you are not entitled to have 2 new tires for that race. All tires will be etched and marked during the season. No tire softening or additives allowed. FINES OR SUSPENSION FOR ANY TIRE INFRACTION

# SECTION 38: ROLL CAGE, RUB RAILS AND BUMPERS

- A. Construction: Roll cage construction to be one- and three-quarter inch with wall thickness minimum of .090 magnetic steel tubing
- B. Roll cage: For main cage you may use .090 1  $\frac{3}{4}$  round D.O.M. seamless or .095 cold roll steel tubing.
- C. Gussets: An appropriate amount of gussets mandatory on all joining tubes in roll cage.
- D. Driver door bars: all cars can have 4 door bars with at least 2 uprights between each bar in line with each other, 2 uprights from main frame to bottom bar. Driver side door bars must be plated.
- E. Passenger door bars: Passenger door bars to consist of a 1 ¾" minimum top bar and an "X" configuration from top bar to frame.
- F. Rub rails: Rub rails required between front and rear wheels to extend no further out than outside edge of tires, and no further in than 1" from outside of tires. Must be no further than 6" from rear tire and 10" from front tire at bend height will be at the centerline of rear wheels, 1 ½" minimum size tubing. A diagonal brace is to be installed. All rub rails to be capped or have rounded ends so tires do not get cut. .090 minimum thickness use on rub rails. No aluminum rub rails, mid steel only. One set of each side of car. All nerf bars shall be exposed to outer side of panels. NO SHARP EDGES
- G. Rear bumpers to extend minimum center of rear tires. No more than outer edge of rear tires. Fabricated bumpers may use a 3" aluminum I beam with flat flange facing to rear (contact point)

each end must be cut to 30 degrees angle minimum. A shaped cap welded at each end covering sharp edges as not to cut tires. 3" I beam will be used as rear bumper only. Front and rear bumpers must have a 16" contact center from ground.

#### SECTION 39: RACE CAR APPERANCE

- A. Paint and numbers must be readable contrast. Please note that dark colored cars sometimes are difficult to see and score. Side panel numbers must be a minimum of 12" high and must be visible on both the right and left side of car. Rooftop numbers must face the grandstand side of the race car and must be a minimum of 18" high. Chrome, silver, gold foil numbers are allowed but may need additional outlining if difficult to read by score keepers. Reasonable and numerous complaints from scorers may require a re-doing of numbers.
- B. Appearance: Race cars must maintain clean and neat appearances. SUBJECT TO PENALTIES.

### **SECTION 40: SAFETY**

- A. Inspections: All race cars will pass all safety rules prior to participation in any competition.
- B. Fuel cells: a fuel cell is mandatory. Must be enclosed in metal container.
- C. Must have fuel cell guard to prevent collision entry also straps top and bottom. Must have check valve in vent tube of fuel cell. All fuel cell cages shall have 14-gauge steel metal piece covering all of rear outside of cage, steel plate between rear end and fuel cell is optional at this time, but highly recommended. Must be extremely well secured. Must have foam blocks inside of fuel cell.
- D. Must have minimum of 8" from back fuel cell to contact point of rear bumper and must be minimum of 8" off the ground from the bottom of fuel cell.

ALL ABOVE RULES SUBJECT TO TECH.

IF IT DOESN'T SAY IN THESE RULES YOU CAN THEN YOU CAN'T