

**BETHEL MOTOR SPEEDWAY**  
**COUNTY ROUTE 141 – WHITE LAKE, NY**

**BMS MODIFIED RULES – 2023**

(Last Updated 1/10/2023)

The “BMS” or Bethel Modified division is a limited cost, open wheel, pavement style modified class. The rules have been formulated to encourage participation of cars from numerous similar divisions, with concessions designed to blend the different cars together in a single race with equal competition. The stock based “IMCA” style cars are allowed better engines and lighter transmissions while the low-slung “NASCAR” style cars must utilize more limited engines to compensate for their superior handling and braking. The intention is to provide Bethel Motor Speedway as a venue for affordable modified racing, as the class has gotten too expensive at many larger tracks.

**Technical Specifications, BMS MODIFIED:**

These rules have been formulated to encourage participation. It is not the intention that every participating car will be equipped with all the items allowed by these rules. Since cars from a multitude of tracks and numerous sources of used cars and parts must be considered, the rules have been written to accommodate what is likely to be available or already installed on cars that are in the area or available for purchase used.

2023 BETHEL MOTOR SPEEDWAY BMS MODIFIED RULES are generally based on two references. Stock clip cars follow IMCA guidelines while Fabricated clip “SK” cars follow NASCAR guidelines.

**1. CAR ELIGIBILITY:**

1.1 Several combinations will be eligible for competition in 2023 as follows:

Option	Chassis	Engine	Carb	Min. Weight	Tires	Wheels	Max. width	Left %
SK1*	SK (Light)	Crate 602	2bbl	2650	13” slick tire	14” max*	84” *	56%
SK2	SK	GM Crate 602**	4bbl	2550	9” track tires	10” max	84”	58%
SK3	SK	Open 350	2bbl	2650	9” track tires	10” max	84”	56%
IM4	IMCA	Crate 602	4bbl	2450	9” track tires	10” max	84”	N/A
IM5	IMCA	Open	2bbl	2550	9” track tires	10” max	84”	N/A
IM6	IMCA	Open	4bbl	2650	9” track tires	10” max	84”	N/A
SK7	SK	GM Crate 602**	2bbl	2550	9” track tires	10” max	84”	58%
SK8	SK	“Other” Crate 602 *See sec- 28.4.1	2bbl 4bbl	2600 2650	9” track tires	10” max	84”	56%

\*SK Light cars, complying with all Stafford Motor Speedway rules, shall be allowed to run as-is only in certain events indicated in the BMS schedule. Other than in those designated events, SK Light cars will be considered as option SK2, SK7, or SK8 and shall comply with SK2, SK7, or SK8 provisions.

**\*\* Bottle Cap type seals will be the only acceptable seals for the SK 2 and SK7 engine options. Older GM break off type seals will be considered "Other" Crate Engine and be defined as the #SK8 option.,**

- 1.2 All cars in competition must prominently display the option# and the required minimum weight on the left side hood area or A-pillar for use by track scale personnel. 2" or larger letters in contrasting color required. Cars not displaying option # and required minimum weight must meet highest minimum weight for this division.
- 1.3 Rules for SK style fabricated clip cars can be found in Sections 24 through 29 of these rules, with detailed engine specs in Section 28. With the exception of those items posted, all other rules remain the same for all style BMS Modified cars. Specific questions should be directed to speedway officials.

**NOTE: Rules Sections #2 through #23 pertain to stock-clip & IMCA style cars (option #IM4, #IM5 and #IM6); additionally, the SK style cars shall also comply with the same rules unless specifically changed by Sections #24 through #29.**

## **2. FRAMES**

- 2.1 Factory production complete full 1960 or newer parallel American passenger car frames required. Camaro/Firebird (1967-1981 style) stock front clips will also be allowed. No Jeep, Bronco, etc. or 4 wheel drive frames allowed. No sports car frames allowed. No front wheel driving allowed. Frames may be cut only behind all stock suspension mounting points. Stock frame must extend at least to the rear of the engine block at the bellhousing flange.
  - 2.2 Frames may not be widened or narrowed and must be able to support roll cage on both sides. Must be full and complete both sides. Front cross member must remain full and intact where joined at the frame rails, center of cross member may be notched for radiator and/or steering clearance only.
  - 2.3 MINIMUM FRAME AND BODY HEIGHT from ground is 3 inches (exception is front cross member).
  - 2.4 MINIMUM WHEELBASE 106 inches, both sides (1" TOLERANCE allowed).
  - 2.5 MAXIMUM WIDTH (front or rear) shall not exceed 84 inches from outside edge of tire to outside edge of opposite side tire.
3. **STEERING** box must be OEM. No rack and pinion allowed. Must remain within original bolt pattern for type of frame used. In cockpit, steering may be modified to suit driver's taste, but must be kept on left side of cockpit. No center steering. Steering wheel hub shall be padded. No plastic collars or retainers on steering wheel disconnects.
  4. **SHOCKS AND SPRINGS:** One shock per wheel only. Additional shocks in other locations permissible. Any shock on car may be claimed for \$75. One steel coil spring per wheel only. No coil over shocks allowed on front suspension. No homemade coil overs used anywhere on car. Coil-over eliminators are allowed on rear suspension ONLY. Coil-over shocks are allowed on rear suspension ONLY.
  5. **FRONT SUSPENSION** must be unaltered OEM and be in stock location and must be replaceable by stock parts. Weight jack must be in original center line of spring. Stock passenger car spindles only. No fabricated spindles. Bottom A-frames cannot be altered or moved. Front sway bar must be OEM. No aluminum or fiberglass front suspension parts allowed. Aluminum calipers, "A" frames or spindles,

or any other aluminum front suspension parts are not allowed. **Aluminum safety hubs will be allowed.** Tube type upper A-frames allowed and can be moved, cross shaft may be aluminum.

- 6. REAR SUSPENSION:** Rear of frame may be altered to accept leaf or coil springs. Steel springs only. No torsion bars allowed in rear suspension. Trailing arms/radius rods may be steel or aluminum.

No hydraulic, ratchet or electric weight jacks allowed anywhere in or on car. No air shocks or air bags allowed

**7. REAR AXLE:**

7.1 Any passenger car type or truck rear end may be used. Also, Quick-Change type rears allowed.

7.2 No independent rear axles allowed.

7.3 No traction control devices allowed.

7.4 **Welded or spooled rears ONLY.**

- 8. BRAKES** must be operable and effective on all four wheels and must lock up all four wheels during inspection with brake bias devices allowed. Proportioning valve allowed, front to rear only. Brake lines must be outside frame rails and visible. No brake shut-off or pressure sensitive devices allowed. Calipers cannot be lightened and must be OEM. Rotors cannot be lightened. Rotors may be re-drilled for different bolt pattern or larger studs. Cars that appear to have inadequate brakes may be removed from the race due to safety reasons.

**9. WHEELS & TIRES:**

9.1 15" maximum diameter X 10" maximum width steel racing type wheels are mandatory. Wheel centers must be minimum 1/8" thickness.

9.2 All four wheels must have minimum of 5 lug nuts per wheel. Studs must extend through lug nuts. 1/2" lug studs and 1" lug nuts are highly advised.

9.3 Any thickness steel or aluminum wheel spacers may be utilized, but only with adequate length and strength wheel studs.

**9.4 Any wheel offset will be allowed**

9.5 All tires must be in good condition, not excessively worn, damaged, or deteriorated and shall be capable of sustaining racing cornering loads. TIRE SOFTENER IS NOT PERMITTED.

**REQUIRED TIRES** American Racer 970 Treaded racing tire, Teams will be given the first three points races of the Division's season to burn off old tires. Sidewall markings must be legible on at least one side of the tire. Any tire that does not have legible markings on at least one side is prohibited and will be deemed illegal. No racing slicks allowed.

**10. BODIES:**

10.1 1949 or newer American compact passenger cars only (no panel vans or station wagons). Stock appearing windshield and rear window support unit (painted roll bars - not acceptable substitute). May utilize a half-windshield, flat, with no wings, mounted to the roll cage. Must

have a minimum of three windshield bars in front of driver, or full steel screen, or full Lexan windshield.

- 10.2 Firewall and floorboards are Mandatory. All body parts should be recognizable as factory production vehicle. Fiberglass and metal duplicates of body parts are permitted. Handmade body parts may be constructed of steel, aluminum or fiberglass, but should be recognizable as factory production vehicle. No plastic body parts allowed. Fabricated bodies must be same width, front to rear, and parallel to the frame. All vehicles in competition must have complete paint job. Unpainted aluminum bodies not acceptable.
- 10.3 Original roof line of vehicle must be maintained. Must be fiberglass or steel full size roof. Sail panels must closely resemble stock vehicle and be the same on both sides of the car. Any reinforcing lips on rear of sail panels must be 180 degree bends. Maximum 4-inch plastic skirting allowed on bottom of doors and quarters.
- 10.4 Engine compartment must remain open, no side panels. Hood side may have maximum of four (4) inch drop and must be enclosed at rear of hood; maximum hood scoop height - six (6) inches; bodies should extend no further forward than back of engine block. Passenger side of body must be no further forward than rear of block. Rear of bodies to be solid panel at least eight (8) inches high and include car number. No panel in front of right door to engine compartment. No inner panels.
- 10.5 Driver and passenger side windows on both sides of the car must have at least twelve (12) inch vertical opening. Left side quick release competition window net is required.
- 10.6 No car covers or covers on suspension parts.
- 10.7 Body installation must be done neatly and properly maintained in a presentable condition. Sponsors names must not interfere with car numbers and must be neatly lettered.

## **11. BUMPERS**

- 11.1 Bumpers shall be used both front and rear.
- 11.2 Front bumpers shall be mounted frame end to frame end with the bottom loop parallel to the ground. Should be made of a minimum of 1 1/4 inch steel pipe and must be able to support the car if lifted by wrecker. Front bumper must be painted with bright color.
- 11.3 Rear bumper, nerf bars and body must not extend beyond the width of rear tires and must not contain any sharp edges. Rear bumpers may be constructed of steel pipe or channel and must protect the fuel cell.
- 11.4 Center of bumpers (front and rear) must be 18 inches, plus or minus 2 inches, from the ground. No sharp edges allowed on bumpers or nerf bars.

## **12. ROLL CAGE:**

- 12.1 Must consist of continuous steel hoops not less than 1-1/2 inches outside diameter and must have a wall thickness of at least .095". All joints must be properly fitted, welded and gusseted for strength.
- 12.2 Must be frame mounted in at least (6) places. Roll bar padding is required in driver's compartment. Fire retardant padding recommended.
- 12.3 Must consist of a configuration of front and rear hoops connected by tubing on the sides or side hoops. Driver's head must not protrude above cage with helmet on and strapped in

driver's seat. Must have minimum of one cross bar in top half of roll cage. Roll cage must be securely supported and braced.

- 12.4 Low carbon mild steel tubing is recommended. No brazing or soldering allowed. No threaded pipe.
- 12.5 Protection of feet is mandatory. Bar across the back of engine with vertical bars and rub rails or similar protection.
- 12.6 No brace forward of cage may be higher than stock hood height.
- 12.7 A minimum of three driver door bars, at least 1.5 inch OD, must be as parallel to ground as possible and located perpendicular to the driver so as to provide maximum protection for the driver without causing undue difficulty getting in or out of the vehicle. The sidebars must be welded to the front and rear of the roll cage members. No brazing or soldering allowed. Door bars less than .095 wall thickness must have at least four (4) bars at least 1 1/2 inch diameter.
- 12.8 Steel door plates, 18 gauge or .049-inch minimum thickness metal, must be securely welded to outside of door bars on driver's side. Plate must cover the area from the top door bar to the bottom door bar and from the rear down post to five inches in front of the seat. Must be visible for inspection.

### **13. SEAT & SEAT BELTS:**

- 13.1 A racing style aluminum seat is mandatory. Must be securely fastened (bolted) to the roll cage and/or frame. No floorboard installations. A minimum of six (6) bolts are required, four (4) in the seat area and two (2) in the backrest; minimum 3/8" diameter, Grade 5 or Grade 8, with flat washers and locking nuts. No carriage bolts or lock washers.
- 13.2 The seat must be positioned completely to the left of the center line of car.
- 13.3 A high back seat or padded roll bar headrest is mandatory. Driver's head must not protrude above cage with helmet on, strapped in driver's seat. Roll bar padding shall be installed wherever impact by the driver could cause injury.
- 13.4 Seat belts & harnesses must be a minimum 5-point style (including sub-belt). 5-point seat belt/harness shall employ 3" quick release lap belts and 3" shoulder straps. (2" shoulder straps allowed ONLY with HANS type device.)
- 13.5 Seat belt & harness must be securely fastened to the frame or cage and NOT to floorboards or sheet metal components of car. All mounts MUST be in direct line with the direction of the pull. Bolts MAY NOT be inserted through belt webbing for mounting.
- 13.6 Seat belts will be rejected if not in good condition. Refer to General Rules, Pages 18-20 for instructions, and Page 24 for diagrams of proper installation of seat belts & harness. Seat belts will be inspected by Track Officials, and must be dated within five years (i.e., in order to be legal for the 2023 season, the date stamped on the belts can be no older than 2018). Seat belts without a legible date stamp on them will NOT be allowed.
- 13.7 SEAT BELTS MUST BE WORN TIGHTLY AND SECURELY AT ALL TIMES WHILE ON SPEEDWAY!! NO EXCEPTIONS!!

**14. WINDOW NET** shall be installed in driver's side window opening. Net may be web, string or mesh construction. Net and mounting hardware must be of adequate strength to restrain driver in case of side impact. Window nets must have quick-release mechanism that can be operated from inside the car, by the driver. When released the net must drop down and out of the window opening.

**15. FUEL CELL** is required and must be mounted by at least two solid steel straps, two (2) inches wide around cell. Fuel cells must be enclosed in a metal container and must be mounted securely behind rear axle, protected by roll cage tubing. Fuel cell must be a minimum of four inches ahead of rear bumper and no part of the cell should be lower than protective tubing. Fuel cell must have check valves, bladder recommended. Fuel cell size is limited to 32 gallons maximum capacity. Pick-up must not be underneath fuel cell. Fuel cell mounts must be steel, securely welded to frame/cage.

15.1 No electric fuel pumps allowed. No glass bowls on fuel pumps or fuel filters allowed; no plastic fuel filters.

15.2 Fuel shut-off valve must be clearly marked "On" and "Off" and in reach of driver.

15.3 No rubber fuel lines allowed in cockpit, must be braided hose or steel tubing only.

**16. Fuel:**

16.1 VP Race Fuel only. No other fuel is permitted. Random checks will be made throughout the year to ensure use of VP Race Fuel. Refer to General Rules regarding placement of required decals and driver suit patches to be eligible for Race Fuel points fund bonus.

**17. ELECTRICAL:**

17.1 All cars must be self- starting. All vehicles must have the capability of starting without being pushed or pulled. All cars must join the lineup on demand, unaided, or go to rear of race if push is needed.

17.2 BATTERY must be securely mounted and shielded. No Bungie cords or ratchet straps. One 12-volt battery only. Battery shut-off switch in reach of the driver is recommended.

17.3 Ignition kill switch required within easy reach of the driver. The switch must be clearly marked "ON" and "OFF".

17.4 GAUGES: All gauges, tachometers, etc. MUST be mounted below the dash line and out of the driver's direct line of sight. Gauge mounting is subject to inspection and approval by track officials.

17.5 No electronic monitoring or computer devices capable of storing or transmitting information except tachometers allowed on cars. No ignition control boxes allowed. No traction control devices allowed. Rev limiter is allowed.

**18. COOLING SYSTEM:**

18.1 Cooling systems may be modified. Mechanical or electric fans are permitted, must be shrouded.

18.2 Radiator must be placed in front of engine. Aluminum radiator allowed. Radiators and oil coolers must not protrude above interior and must not be in cockpit.

18.3 Water ONLY. No Anti-freeze or other additives allowed.

- 18.4 Radiator overflow catch can min. 1 QT capacity is required. Must be securely mounted; no plastic ties or bungee cords. Any overflow tubes must be directed to the ground, inside frame rails.

#### **19. TRANSMISSION:**

- 19.1 Must have at least one gear forward and one reverse, plus neutral position. With motor running and car in a still position, driver must be able to engage car in gear and move forward, then backward. OEM production type transmission will be allowed - three speed, four speed and automatic. No five speed transmissions, "in & out" boxes, or quick-change devices allowed. Functioning shifter must be in stock location on transmissions manufactured after 1995. Racing "direct drive" two-speed transmissions with internal clutch may be used (no magnesium case allowed). All aftermarket transmissions must be IMCA approved part numbers. Must be aluminum case with internal clutch and must bolt to explosion proof bellhousing and utilize a steel full size minimum 13" starter flex plate with starter mounted in stock location on engine block. No coatings or paint allowed on transmission cases.
- 19.2 All manual gear type transmissions must have a standard OEM case and must have a working disc type or approved cone-type clutch inside an explosion-proof steel bell housing.
- 19.3 Automatic transmissions must remain in stock OEM Stock appearing automatic case. Original bell housing must remain. Must have an approved scatter shield or blanket. Scatter shield may be constructed of .25 inch by four inch steel, 270 degrees around flex plate or flywheel. A coupler may be used.

- 20. DRIVE SHAFT** loop is required and must be constructed of at least 1/4 inch x 2 inch steel and should be mounted no more than 6 inches back from front of drive shaft. Drive shaft must be painted white. No aluminum or carbon fiber drive shafts.

#### **21. ENGINES:**

- 21.1 **"OPEN 2 bbl & 4 bbl ENGINE" (option #IM5 & #IM6):**
- 21.1.1 NO ALUMINUM HEADS OR BLOCKS
- 21.1.2 Any American make engine may be used as long as rear of engine (bell housing flange) is mounted at least 72 inches forward from the center line of rear axle. Engine offset must be kept within two inches of centerline of front cross member.
- 21.1.3 All engines used in competition must be able to be used in conventional passenger car without alterations. Motor mounts CANNOT be removed or altered. Castings and fittings must not be changed. No machine work on outside engine or on front or rear of camshaft. Cylinder block may not be altered in such a way as to prevent it from being used in a stock application. Stock OEM components must be able to be immediately used in their stock locations.
- 21.1.4 No total "dry sump" oiling systems allowed. "Wet" systems must be operative.
- 21.1.5 NO magneto ignition systems allowed.

21.1.6 ASPIRATION shall be a single two barrel or a single four barrel carburetor ONLY. Must be naturally aspirated and must meet all stock dimensions. No fuel injection allowed.

21.1.7 2 barrel carburetor on option # IM5 engines shall be limited to a single Holley #4412, 500 CFM two (2) barrel carburetor for gas with no modifications. The choke and choke housing may be removed. Only Holley parts allowed. Maximum one-inch (1") thickness adapter plate (or spacer) allowed, flat top and bottom. NOTHING PROTRUDING INTO THE INTAKE AND NOTHING INTO THE CARBURETOR.

21.1.8 Two (2) paper gaskets, one (1) per side, maximum thickness (.065"). Dual throttle return springs are mandatory.

**21.2 "602 CRATE ENGINE" (option #IM4):**

21.2.1 The crate engine GM part # is 88958602 / 19258602. This is a factory-sealed 350 horsepower, cast iron cylinder head, hydraulic lifter engine requiring minimal maintenance.

21.2.2 Seals on crate engines must not be tampered with or removed. Any such tampering shall require the engine to be resealed and re-certified by a GM authorized crate engine servicing facility before being allowed for competition.

**21.2.3 REQUIRED CARBURETOR:**

21.2.3.1 Carburetor #IM4 shall be a single stock Holley 650 cfm 4 barrel #4777, #80777, or #80541-1 with no modifications allowed except removal of the choke plate and linkage, spot welding of the throttle shaft and changing of metering jets. Dual throttle return springs are mandatory.

21.2.3.2 OPTIONAL Carburetor #IM4 - a single Holley two-barrel model #4412 carburetor may be used. All parts must be a Holley manufactured part for the 4412 model. Polishing, grinding, resizing or reshaping of any part or orifice is not permitted. The body, base plate, metering block, and bowl must be a standard Holley 4412 part, HP parts are not permitted. OEM type gaskets, jets and power valve must be used. The diameter of every hole in carburetor must pass the standard Holley pin and tooling gauges as part of our routine tech process.

- (1) Body of carburetor and metering block: No polishing, grinding or reshaping of any part. Drilling of additional holes or plugging holes is not permitted.
- (2) The choke may be removed, but all screw holes must be permanently sealed.
- (3) Choke Horn: Choke horn may not be removed.
- (4) Boosters: Boosters may not be changed. Size or shape must not be altered. Height must remain standard.
- (5) Venturi: Venturi area must not be altered in any manner. Casting ring must not be removed. (6) Alterations to allow additional air to be picked up below the opening of the venturi such as altered gaskets, base plates and drilling holes into the carburetor will not be permitted.
- (6) Base Plate: Base plate must not be altered in shape or size.



- (7) Butterflies: The stock Holley 4412 or Stainless Steel Holly part #346 butterflies must be used. They may not be thinned or tapered. The Butterflies must remain as manufactured, and must maintain the Holley production tolerance thickness of .0438" to .0398". Idle holes may be drilled in butterflies. Screw ends may be cut even with shaft but screw heads must remain standard
- (8) Throttle Shaft: Shaft must remain standard and must not be thinned or cut in any manner. Only Holley parts allowed. Maximum one-inch (1") thickness adapter plate (or spacer) allowed, flat top and bottom. NOTHING PROTRUDING INTO THE INTAKE AND NOTHING INTO THE CARBURETOR. Two (2) paper gaskets, one (1) per side, maximum thickness (.065"). Dual throttle return springs are mandatory.

21.2.4 CLAIMING: All GM Crate 602 engines shall be subject to claiming in the amount of \$6,500 (U.S. Funds). Claimed engines shall be surrendered the night of the claim, at the track, and include only the long block (intake to pan) & ignition as supplied by GM at time of purchase. Claims may be made by another active competitor within the specific division, who must have finished the race on the lead lap, and who must have a 2023 Nascar Driver License or 2023 Bethel Motor Speedway Membership license. The claims must be submitted with CASH, CASHIERS CHECK, OR MONEY ORDER PAYABLE TO BETHEL MOTOR SPEEDWAY only, along with a written request of the claim, signed, and dated. Engines are only eligible to be claimed when they finish in a top 3 position at the conclusion of their main feature event. The claim must be made within 15 minutes after the feature event officially ended, and must be made to the tech inspector or pit steward. If a valid claim is refused by the driver of the claimed car, it will result in a disqualification from the feature event with a loss of points and monetary/prize winnings. Additional penalties will also occur to the claimed race team by refusing a valid claim.

21.3 **IGNITION** - (H.E.I.) self-contained ignition system will be permitted. The distributor must mount in the stock location and maintain the same firing order as a factory produced engine. No outside ignition box or outside coil allowed. Ford and Mopar must run stock type box and coil. No crank trigger systems will be permitted. No magneto type ignition allowed. No traction control devices allowed. Rev limiters are permitted. All GM 602 Crate equipped cars must use stock type H.E.I ignition.

## 22. EXHAUST:

22.1 Exhaust system must be mounted in such a way as to direct spent gases away from cockpit of vehicles and away from areas of possible fuel spillage.

22.2 IMCA Mufflers are not permitted. Low Back, Turbo, Extreme DIRT style muffler will be permitted. Any muffler deemed "too loud" will not be allowed. Cars losing a muffler or becoming excessively loud during the race, may be removed or black-flagged due to noise constraints.

## 23. WEIGHT: (see table in Sec. 1.1)

23.1 All cars must weigh no less than the weights prescribed per chassis type and engine option type following feature, with driver and helmet in car, with no fuel added. Track scales are official. No tolerance shall be allowed for weights.

23.2 Loose objects and/or weights must not be used in driver's compartment, outside the body or hood area. Any weights added to other areas of the vehicle must be securely mounted,

painted white and have car number painted on it. Weights must be attached with at least two (2) 3/8" bolts, Grade 5 or better, with locking nuts; no lock washers.

**NOTE: Rules #24 through #29 pertain to fabricated-clip SK style cars (option #SK1, #SK2, #SK3, SK7, & SK8).**

**24. FABRICATED CLIP CARS ALLOWED ONLY UNDER THE FOLLOWING REQUIREMENTS:**

- 24.1 Maximum 358 cubic inch, flat top engine with 2 barrel 4412 carburetor OR GM 602 Crate engine.
- 24.2 Must meet minimum weight requirements in accordance with engine option #SK1, #SK2, #SK3, #SK7, or #SK8.
- 24.3 Must use a GM OEM production stock 3 or 4 speed transmission with a 7-1/4" or 10" clutch, or a Richmond two speed transmission with a 7-1/4" or 10" clutch. (see details).
- 24.4 Must meet two inches (2") minimum ground clearance with driver in car at all times.
- 24.5 Fuel must be GASOLINE ONLY. No nitrous oxide. No performance enhancing fuel additives of any kind allowed.
- 24.6 Must run 9" treaded Bethel track tires and steel wheels as prescribed in section 9 above [except option #SK1 (Light 602, 2 bbl) which may use the 13" slick tires provided they are Stafford or Thompson legal for the SK Light divisions].

**SK Light division cars, complying with all Stafford Motor Speedway rules, shall be allowed to run as-is only in certain events indicated in the BMS schedule. Other than in those designated events, SK Light cars will be considered as option SK2, SK7, or SK8 and shall comply with SK2, SK7, or SK8 provisions.**

**25. SK style MODIFIED BODIES:**

- 25.1 Must be open wheeled, conventional asphalt style modified body. Steel or aluminum is acceptable.

No wings, fins, skirts, air dams or other aero-advantage body parts exceeding those allowable by NASCAR Modified standards. Stock and vintage style steel bodies (example: coupe, Gremlin, Falcon, etc.) allowable.

**26. SK style TRANSMISSION:**

- 26.1 No direct drive such as Bert, Brinn, Falcon, etc. allowed. No ram couplers. Disk type clutch required, shall be minimum 7-1/4" diameter. 10" diameter stock style clutch allowable.
- 26.2 A GM OEM production stock 3 or 4 speed transmission or a Richmond two speed transmission must be used. No "top loaders" allowed.
- 26.3 All transmissions must have a constant engagement of the input shaft with gear and countershaft with cluster gears, and must be a 1 to 1 final drive ratio.
- 26.4 GM OEM transmission shall have OEM Stock cast iron, aluminum or magnesium transmission housings, or the Magnus part number MRPSA-1009 housing is permitted. The OEM Stock transmission side cover must be used. **Removal of first and second gears in 4speed transmissions is permitted.** All other forward and reverse gears must be in working

order, and they must be operational from inside the driver's compartment. Only OEM type, steel, angle cut forward gears are permitted. OEM gear ratios must be used.

- 26.5 Richmond two speed - Modification of the dog-ring and slider (high gear only) in Richmond 2-speed transmissions is permitted. No other modifications of any kind are permitted. The following Richmond 2speed transmission part numbers are the only approved: Richmond part numbers: 7020010X, 7020026X, 7027010X, 7027026X, the "X" representing Richmond's ratios letter designator. The following Richmond produced low gear ratios are the only approved ratio for use in the Richmond 2-speed transmission: 1.2250, 1.3391, 1.4588, 1.5956, 1.7442.
- 26.6 Five-speed transmissions, even with gears removed, are not permitted.
- 26.7 Quick change transmissions are not permitted. Automatic or semi-automatic transmissions are not permitted. Auxiliary, over or under drive transmissions are not permitted. High gear must have a ratio of 1 to 1 and no other gear may have a ratio higher than 1.20 to 1.
- 26.8 Machining or lightening of any internal rotating or non-rotating parts including gears, shafts, and case are not permitted. Gun drilled transmission shafts are not permitted. Welding on any internal part will not be permitted.
- 26.9 Additional or different from OEM bearings other than the tail-shaft, which may have roller bearings, are not permitted.
- 26.10 The shifter and all of its components must be made of steel or aluminum.

#### **27. SK style CHASSIS and BRAKES:**

- 27.1 Coil overs shock absorbers allowed (front & rear) when using the fabricated clip.
- 27.2 Rack and Pinion steering allowed when using the fabricated clip.
- 27.3 Wide-five or GN racing spindles, hubs and brakes allowed. Aluminum hubs and brake calipers are permitted (no titanium or carbon fiber allowed) when using the fabricated clip.
- 27.4 Brakes must be operable and effective on all four wheels and must lock up all four wheels during inspection with brake bias devices allowed. Proportioning valve allowed, front to rear only. No brake shut-off or pressure sensitive devices allowed.
- 27.5 Max. width outside edge of tire to outside edge of opposite tire shall not exceed 84".
- 27.6 SK style ENGINE LOCATION - The block must be centered on the chassis within one-inch (1) to the frame. The crankshaft center line must be within one inch (1") of center line between ball joints.

#### **28. SK style FABRICATED CLIP CAR ENGINE RULES:**

- 28.1 IMCA-TYPE "OPEN" 4 BBL ENGINES ARE NOT TO BE USED IN FABRICATED CLIP CARS
- 28.2 "GM 602 CRATE ENGINE" (Option #SK1, #SK2, & SK7):
  - 28.2.1 The crate engine GM part # is 88958602 / 19258602. This is a factory-sealed 350 horsepower, cast iron cylinder head, hydraulic lifter engine requiring minimal maintenance.

28.2.2 Seals on crate engines must not be tampered with or removed. Any such tampering shall require the engine to be resealed and re-certified by a GM authorized crate engine servicing facility before being allowed for competition.

**Bottle Cap type seals will be the only acceptable seals for these engine options.**

**Older GM break off type seals will be considered "Other" Crate Engine and be defined as the #SK8 option.,**

In cases where the cylinder heads, intake manifold, and/or front timing cover have been removed/repared and replaced with **NON-GM seals**, the crate engine would now be considered an **"Other" Crate Engine** and be defined as the **#SK8** option. It would no longer be legal as the #SK2 or #SK7 option.

### 28.2.3 REQUIRED CARBURETOR:

28.2.3.1 Carburetor #SK1 and #SK7 shall be a single Holley two barrel model #4412 carburetor. All parts must be a Holley manufactured part for the 4412 model. Polishing, grinding, resizing or reshaping of any part or orifice is not permitted. The body, base plate, metering block, and bowl must be a Holley 4412 part, OEM type gaskets, jets and power valve must be used. The diameter of every hole in carburetor must pass the standard Holley pin and tooling gauges as part of our routine tech process.

- (1) Body of carburetor and metering block: No polishing, grinding or reshaping of any part. Drilling of additional holes or plugging holes is not permitted.
- (2) The choke may be removed, but all screw holes must be permanently sealed.
- (3) Choke Horn: Choke horn may not be removed.
- (4) Boosters: Boosters may not be changed. Size or shape must not be altered. Height must remain standard.
- (5) Venturi: Venturi area must not be altered in any manner. Casting ring must not be removed.
- (6) Alterations to allow additional air to be picked up below the opening of the venturi such as altered gaskets, base plates and drilling holes into the carburetor will not be permitted.
- (7) Base Plate: Base plate must not be altered in shape or size.
- (8) Butterflies: The stock Holley 4412 or Stainless Steel Holly part #346 butterflies must be used. They may not be thinned or tapered. The Butterflies must remain as manufactured, and must maintain the Holley production tolerance thickness of .0438" to .0398". Idle holes may be drilled in butterflies. Screw ends may be cut even with shaft but screw heads must remain standard.
- (9) Throttle Shaft: Shaft must remain standard and must not be thinned or cut in any manner. Only Holley parts allowed. Maximum one-inch (1") thickness adapter plate (or spacer) allowed, flat top and bottom. NOTHING
- (10) PROTRUDING INTO THE INTAKE AND NOTHING INTO THE CARBURETOR. Two (2) paper gaskets, one (1) per side, maximum thickness (.065"). Dual throttle return springs are mandatory.

28.2.3.2 Carburetor #SK2 shall be a single stock Holley 650 cfm 4 barrel #4777, #80777 or #80541-1 with no modifications allowed except removal of the

choke plate and linkage, spot welding of the throttle shaft and changing of metering jets. Dual throttle return springs are mandatory.

28.2.4 CLAIMING: All GM Crate 602 engines shall be subject to claiming in the amount of **\$6,500** (U.S. Funds). Claimed engines shall be surrendered the night of the claim, at the track, and include only the long block (intake to pan) & ignition as supplied by GM at time of purchase. Claims may be made by another active competitor within the specific division, who must have finished the race on the lead lap, and who must have a **2023 Nascar Driver License or 2023 Bethel Motor Speedway Membership license**. The claims must be submitted with CASH, CASHIERS CHECK, OR MONEY ORDER PAYABLE TO BETHEL MOTOR SPEEDWAY only, along with a written request of the claim, signed, and dated. Engines are only eligible to be claimed when they finish in a top 3 position at the conclusion of their main feature event. The claim must be made within 15 minutes after the feature event officially ended, and must be made to the tech inspector or pit steward. If a valid claim is refused by the driver of the claimed car, it will result in a disqualification from the feature event with a loss of points and monetary/prize winnings. Additional penalties will also occur to the claimed race team by refusing a valid claim.

28.2.5 IGNITION: All 602 Crate equipped cars must use stock type H.E.I ignition. No outside ignition box or outside coil allowed. No traction control devices allowed. Rev limiters are permitted.

**28.2.6 VALVE SPRINGS: Not to exceed 80lbs seat pressure.**

28.2.7 OIL PAN/OIL PUMP: A 602 Crate equipped car may use a different oil pan, oil pump, and pickup tube to allow proper clearance to fit within the configuration of the SK modified frame. Replaced oil pan must maintain a wet-sump system. No dry sump or external oil pump is allowed.

28.3 **“OPEN 350 2 bbl ENGINE” (option #SK3):**

28.3.1 North American manufactured engines allowed:

CHEVY Block: Bore 4.040 ONLY (Max) Stroke 3.48 ONLY (Max);

FORD Block: Bore – 4.040 (Max) Stroke - 3.50 (Max);

CHRY Block: Bore – 4.04 (Max) Stroke – 3.58 (Max)

28.3.2 BLOCKS - Must be a stock V-8 American manufactured cast-iron production block with maximum overbore to .040". Chevy and Ford - maximum engine displacement of three hundred fifty eight (358) cubic inches. Chrysler – maximum displacement of three hundred sixty eight (368) cubic inches.

28.3.3 CRANKSHAFT - Any steel crankshaft is allowed providing it maintains stock stroke of manufactured engine block used.

28.3.4 CONNECTING RODS- Stock production O.E.M. or after-market steel rods allowed.

28.3.5 PISTONS - Flat top pistons only.

28.3.6 CAMSHAFTS - Flat tappet camshaft only. All camshaft timing drive systems allowed.

28.3.7 VALVE SPRINGS - Any valve springs allowed. Any retainers will be allowed.

28.3.8 COMPRESSION - No more than eleven to one (11 to 1) compression ratio allowed. A hole must be drilled in the bell housing in order to turn the engine over to check compression.

28.3.9 ROCKER ARMS - Any roller rocker arm systems allowed.

28.3.10 VALVES - No altering of valve guide angle or location. Stock valve angles and spacing for head used. Steel valves only – NO TITANIUM VALVES ALLOWED. Titanium caps and locks permitted. Minimum valve stem size shall be 5/16" minimum.

28.3.11 LIFTERS & CAMS - NO steel billet camshafts. NO roller camshafts. Flat tappet Camshaft ONLY. NO ceramic lifters allowed. NO Schubeck lifters allowed. Steel Lifters ONLY. Stock lifter bores – Chevy .842 – Ford - .875 – Chry .903 inch diameters. Steel laser drilled lifters allowed.

28.3.12 CYLINDER HEADS - Cylinder head design must be stock . Ford and Chevrolet must run steel heads – stock or aftermarket – with maximum 2.020 intake and either 1.500 exhaust valves, or machine head to accept 1.600 exhaust valves. Chrysler must run steel heads – stock or aftermarket – with 1.925 intake and 1.625 exhaust valves. No offset head dowel pins allowed. Machining of heads allowed.

28.3.13 INTAKE MANIFOLD – Stock cast iron or aluminum 2 barrel or 4 barrel intake manifolds only. Must remain stock, no porting, polishing, or other alterations allowed, except planing of bottom to match head will be allowed and the gasket surface can only be cut to meet the cylinder heads. Chevrolet part #7101; Ford part #7181; Chrysler part number PS007381. Any 2BBL aluminum single plane manifold will be permitted.

28.3.14 CARBURETOR – A single Holley two-barrel model #4412 carburetor must be used. All parts must be a Holley manufactured part for the 4412 model. Polishing, grinding, resizing or reshaping of any part or orifice is not permitted. The body, base plate, metering block, and bowl must be a Holley 4412, OEM type gaskets, jets and power valve must be used. The diameter of every hole in carburetor must pass the standard Holley pin and tooling gauges as part of our routine tech process.

(1) Body of carburetor and metering block: No polishing, grinding or reshaping of any part. Drilling of additional holes or plugging holes is not permitted.

(2) The choke may be removed, but all screw holes must be permanently sealed.

(3) Choke Horn: Choke horn may not be removed.

(4) Boosters: Boosters may not be changed. Size or shape must not be altered. Height must remain standard.

(5) Venturi: Venturi area must not be altered in any manner. Casting ring must not be removed.

(6) Alterations to allow additional air to be picked up below the opening of the venturi such as altered gaskets, base plates and drilling holes into the carburetor will not be permitted.

7) Base Plate: Base plate must not be altered in shape or size.

(8) Butterflies: The stock Holley 4412 or Stainless Steel Holly part #346 butterflies must be used. They may not be thinned or tapered. The Butterflies must remain as manufactured, and

must maintain the Holley production tolerance thickness of .0438" to .0398". Idle holes may be drilled in butterflies. Screw ends may be cut even with shaft but screw heads must remain standard.

- (9) Throttle Shaft: Shaft must remain standard and must not be thinned or cut in any manner. Only Holley parts allowed. Maximum one-inch (1") thickness adapter plate (or spacer) allowed, flat top and bottom. NOTHING

(10) PROTRUDING INTO THE INTAKE AND NOTHING INTO THE CARBURETOR. Two (2) paper gaskets, one (1) per side, maximum thickness (.065"). Dual throttle return springs are mandatory.

28.3.15 IGNITION - Magneto self-contained systems will be permitted. (H.E.I.) self-contained ignition system will be permitted. The distributor must mount in the stock location and maintain the same firing order as a factory produced engine. No outside ignition box or outside coil allowed. Ford and Mopar must run stock type box and coil. No crank trigger systems will be permitted. No traction control devices allowed. Rev limiters are permitted.

28.3.16 OILING SYSTEM - Pan must be minimum of six (6) inches in depth, made of steel or aluminum. - No vacuum system or oil pan vent. Stock O.E.M. oil pump, must be at stock location. The use of combustion enhancing oils or additives is not permitted. One (1) inch pipe plug between the 1st and 2nd main-caps (with no visual blocking by crank scraper) is required for inspection purposes.

#### 28.4 "OTHER" 602 CRATE ENGINE (Option #SK8)

28.4.1 The crate engine GM part # is 88958602/19258602. This is a sealed, 350 horsepower, cast iron cylinder head, hydraulic lifter engine requiring minimal maintenance as delivered from GM, but no longer has the original GM security seals on the top end (Intake/Cylinder Heads), and/or on the front end (Timing Cover) or has older GM break off style seal bolts. A maximum overbore of .030" will be permitted. The maximum static compression ratio is 9.5 to 1. Examples of Non-GM sealed engines: Riverhead Raceway (RMC), Stafford Motor Speedway (SMS), Waterford Speedbowl, (NLWS), R.A.D. Auto Machine, T/A Engines, Nat's Racing Engines. Larry's Auto Machine. At any time, track management may deem an SK8 engine option as over-competitive and consider it as not conforming to the rules, which could result in disqualification.

#### 29. SK style WEIGHT: (see table in Sec. 1.1)

- 29.1 All cars must weigh no less than the weights prescribed per chassis type and engine option type following feature, with driver and helmet in car, with no fuel added. Track scales are official. No tolerance shall be allowed for weights.
- 29.2 Weights and percentages of cars will be the total weight and percentage before or after an event with driver and helmet in car, seated in driver's position, with no fuel added.
- 29.3 Loose objects and/or weights must not be used in driver's compartment, outside the body or hood area. Any weights added to other areas of the vehicle must be securely mounted, painted white and have car number painted on it. Weights must be attached with at least two (2) 3/8" bolts, Grade 5 or better, with locking nuts; no lock washers.

#### 30. SCORING:

- 30.1 All cars must display numbers acceptable to the scoring and handicapping officials. High contrast, legible numbers shall be located on both sides, and the top of the car. Duplicate numbering may require addition or modification to eliminate scoring confusion.
- 30.2 **AMB/MyLaps or FLEX transponders are now required in all divisions.** Unless otherwise specified by a particular sanctioning organization, transponders are to be



mounted on the right side of the car, between 15 and 20 inches rearward of the centerline of the rear axle, and no more than 18 inches above the track surface. Transponders must be mounted vertically with an unobstructed view of the track surface (no metal underneath). It is the driver's responsibility to be sure that their transponder is charged and functioning properly. If you have a question about whether your transponder is functioning properly, it is YOUR responsibility to ask track staff to check your transponder during hot laps, and track staff will make every reasonable effort to alert you to any issue with signal strength or charge. If a driver's transponder ceases to work during the course of an event, the car will only be scored until the point that their transponder stops reading. Any driver caught improperly mounting their transponder in order to gain an advantage will have their finish position adjusted and/or be disqualified from the event (including forfeiture of points and prize money) at the discretion of speedway officials. If you have a question regarding the mounting location of your transponder, it is your responsibility to verify it with speedway officials prior to competition. Cars equipped with scoring transponders may, or may not, be tracked for lap time purposes. Lap times posted through the electronic scoring system may not accurately list finishing order.

**31. COMMUNICATION/RADIOS:**

- 31.1 One way scanners / radios are required for the driver to receive instruction from track officials.
- 31.2 Radios are to have the speedway driver frequency in place before the start of any practice or event.
- 31.3 Radios shall be mounted behind and out of reach of the driver
- 31.4 The driver must have a radio ear piece for the unit.
- 31.5 No other forms of one way or two-way communication is permitted.
- 31.6 Any car found to be without a working scanner may be black flagged and/or disqualified from the event. Check your batteries.
- 31.7 It is very important to adhere to the instruction of track officials. Failure to properly react to radio instructions, hand signals or flag signals may result in penalties.

**32. MIRRORS:**

- 32.1 Mirrors are NOT allowed in this division