

# **2010 MIS LATE MODELS**

Rev 1/4/2010

The Guidelines 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 guidelines shall govern the condition of events and participation therein. They are intended as a guide for the conduct of events and are in no way a guarantee against injury or death to a participant, spectator, or official. The Director of competition, or his authorized designate, shall be empowered to permit minor deviation from any of the guidelines and or regulations herein, or impose any further restriction, which, in his or her opinion, does not alter the purpose of the organization. Deviation of these guidelines and or regulations will be the responsibility of MIS officials, whose decisions are final.

## **SEATS**

Approved aluminum driver's seat required.

Seat must be fastened to frame/roll cage and located to give adequate distance from driver's arm to door bars.

Shoulder supports on right and left sides of seat and head support on right are required.

Full containment seats recommended.

## **SAFETY BELTS**

Minimum 3-inch wide lap belt, 3-inch wide shoulder harness and submarine (crotch) strap required.

Belts must be anchored to roll cage or frame. Grade "5" bolts and hardware required.

Shoulder harness must not be anchored lower than 2-inches below drivers shoulder height.

Belts must be dated **2006** or newer.

6-point belts (double crotch strap) are recommended.

## **DRIVING COMPARTMENT**

Cockpit must be completely sealed off from engine compartment and fuel cell.

Padding required around driver including steering post

Securely mounted fully charged fire extinguisher with visible dial type gauge required.

Ribbon or mesh type window net with belt buckle release required. Buckle located at top/front recommended.

Clearly labeled push-pull or toggle type kill switch accessible from either side of car required.

No suspension components including stabilizer bar can be adjustable from the driving compartment.

## **DRIVER'S ATTIRE**

Complete approved fire retardant driving suit and gloves required.

Eye protection and a Snell SA-2000 (SFI 31.1 2000) helmet or newer required.

SFI-38.1 Head and Neck restraints, fireproof shoes, and fire systems recommended.

## **APPEARANCE**

A professional appearing paint job in an attractive color required. All lettering must be professional and in good taste.

Numbers: 18-inches on both doors, and roof, readable from the right side.

1" square rub rails allowed, mounted within 3" of ends & ends must be tapered and capped.

## **WHEELBASE & TREAD WIDTH**

Minimum wheelbase 104"

Maximum tread width 65", measured center to center of tires at spindle height (front and rear).

## CHASSIS

Tube or stock stub allowed. Frame rails must be a minimum of 2" x 3" x .125" wall tubing.  
Minimum ground clearance 3.5" with driver.

## ROLL CAGE

All roll cage tubing must be at least 1.75" x .090" wall. Welded gussets required on all joints. At least four evenly spaced horizontal bars required on left, and three on right side. X-configuration on right side, counts as one bar.

All door bars must be mounted to the frame rails and the main roll cage uprights.

Door bars must be connected with a minimum of two equally spaced vertical tubes.

Left side door bar deflector plates of at least .125" steel required. Diagonal bar in top hoop required.

Floor pan under driver must be heavy-gauge steel.

## SUSPENSION

Conventionally mounted 5-inch springs or coil over type suspensions.

Steel or aluminum bodied, non-adjustable shocks, FROM LIST BELOW OF APPROVED SHOCKS:

AFCO: SERIES 13T, R, S, 21

BILSTEIN: SERIES SZ, SN

CARRERA: SERIES 6100

PRO: SERIES A, AC, TA (STEEL), PG

QA1: SERIES 21, 50, 62, 67

ARS: SERIES 2000

Manufacturers components must be used, valving optional.

Post race shock disassembly is the responsibility of the owner/crew chief. Bring tools or make arrangements.

No bump-stops/ limit Bumpers or coil bind set-ups. Maximum allowed is one spring rubber per spring.

One shock / spring per wheel.

Rear suspension must be solidly mounted (no rubber bushings). Heim joints only.

No lift bar, fifth coil or other spring-loaded/hydraulic suspension device allowed. No rear stabilizer bars.

## SPINDLES & HUBS

Any steel spindle allowed. Aftermarket hubs with 5/8" wheel studs required, **long enough for threads to show on outside of lug nuts**. No gun-drilled studs permitted. **No weight penalty for wide five hubs.**

## STEERING

Rack & Pinion, or steering box with center link style required. No electric power steering units.

Quick release steering wheel hub required.

Steering column must incorporate a minimum of two U-Joints

Collapsible steering shaft recommended.

## REAR END

Stock or rear spur gear type quick change units with steel tubes, No mini type quick change. Maximum camber 1/2 degree.

Spool, Detroit Locker (ratchet type), and Torque Sensing, differentials are permitted.

One-piece straight spline drive plates only. Drain plugs must be safety wired.

## BRAKES

Four wheel brakes required at all times.

Single or dual piston (steel or aluminum) calipers.

Four (4) piston calipers allowed with **NO** weight penalty. Maximum retail price \$190.

Maximum diameter 12 1/4" rotors. No drilling or drilled rotors permitted. **Self centering** or floating **rotors are NOT permitted. Rotors must be solidly/rigidly bolted.**

No floating caliper brackets, ABS units or brake recirculation systems.

Only one brake bias adjusting unit per car.

## ENGINE LOCATION

GM engines must be located so that the **center of the** furthest forward spark plug **hole** is no more than 2" behind the front axle centerline.

Ford and Chrysler allowed 4" engine set back, as measured above.

Crankshaft centerline 10" minimum ground clearance.

## ENGINES

Limited Concept Engine-

Two valves per cylinder. No aluminum blocks or heads. GM & Ford - 362 CID maximum, Chrysler - 373 CID maximum, (add 20 lbs for cid over 362).

All engines must meet the following specifications regardless of manufacturer: Stock or stock replacement cast iron unaltered heads with factory valve angles (no angle milling, porting, polishing, acid dipping allowed). GM Bowtie numbers 14011058, 10134392, (casting number 14011034 and 12480034), World Products Sportsman II numbers 011150, 011250 allowed. Ford 351N and 352N heads, World Products Windsor Sr. 053040 allowed. Chrysler 5249769 and 4529446 heads allowed. **Casting numbers must be visible on all heads.** Gasket matching not permitted. Maximum 2.02-inch intake and 1.6-inch exhaust valves required. Flat top pistons required. A minimum of zero deck height required. 10.8 to one maximum compression ratio. Connecting rods must be magnetic steel. Honda journal rods not permitted. A 3/4inch NPT inspection hole in oil pan required. Inspection hole must be located in line with second or third rod journal of crankshaft, on either side of pan and above sump area (oil level). Hole in windage tray in line with inspection hole required. Valve spring retainers are the only titanium parts allowed. No radius edge lifters allowed. Lifters must be able to rotate in their bores. No roller or mushroom cam/lifters. Maximum valve lift - .600" (measured at retainer). OEM style rocker arm mounting required. Firing order may not be altered. Ignition system may not be computerized, programmable or have memory circuits. No magnetos, crank trigger, multiple coil or programmable ignition systems allowed. Production type steel crankshaft with normal configuration counter weights. No dry-sump or vacuum systems of any kind allowed. External single stage oil pump allowed on Ford engines. OEM type, mechanical fuel pump, in original location, required. **If beehive valve springs are used, the competitor may be required to switch valve springs on two valves at time of inspection to conventional springs for valve angle measurements.**

**Carburetor:** Holley 4412-2 bbl. Holley 4412 Carburetor Rework Guidelines:

Body of Carbs: No polishing, grinding, or drilling of holes allowed. Gasket surfaces may be machined for improved sealing. The choke may be removed, but all screw holes must be permanently sealed. Choke horn may not be removed. Boosters may not be changed, including no additional holes. Height, size, and shape must remain standard and unaltered.

Venturi area must not be altered in any manner. Casting ring must not be removed. Base plate must not be altered in shape or size. Butterflies: Must not be thinned or tapered. Screw ends may be cut even with shafts, but screw heads must remain standard. Throttle Shafts: Shafts must remain standard and must not be thinned or cut in any manner. Any attempt to pull outside air other than straight down through the venture is not permitted. No aftermarket metering blocks permitted.

Jets may be changed. No dial-a-jet devices.

No addition of any material, such as epoxy, may be added to carb or parts except to seal vacated external screw holes. EXCEPTION: epoxy allowed on boosters of 4412-2 bbl at main body.

**Carb Adaptor:** 1.5" max thickness with gaskets. Original orientation of carb to engine required. Bores must be straight (not tapered, angled beveled or grooved). **No part of carb adaptor may protrude into**

**intake manifold. If spacer/adaptor consists of more than one piece, all holes in each piece must match in size and configuration.**

**Intake Manifold:** Edelbrock Victor Jr. 2975 (GM), 2915, 2920 (Chrysler), 2921, 2980, 2981 (Ford). Plenum and port configuration must remain as-produced. No porting modifications, including gasket matching. No spacer/adaptor plates between intake manifold and cylinder heads.

**Crate Engine:**

Ford, Chevy, and Mopar crate engines allowed.

Engine set back for each will be as stated above, 2" for chevy, 4" for others.

Ignition for all: MSD with Rev-control, with 6400 RPM chip. Mounting on right side of dash required.

Carburetor: Holley 650-HP P/N 80541-1 required. No modifications allowed, no epoxy on boosters.

Ford crate engines must run 1.50 to 1 ratio rocker arms.

GM part number 88958604, must be used as produced. Only permitted updates are 1.6 rockers, 1.5" tall carb spacer (as above), and small balancer.

**ALL CRATE ENGINES:** Certification **and sealing** will be required from REDI **in calendar year 2010**, phone 608-276-5554. Cost for certification at time of printing is \$425 and includes fresh oil and filter, new spark plugs (all engines will be run with spec spark plug and REDI carburetor and gas.) Additionally, new dist cap, rotor and plug wires may be installed and billed for if needed.

**All crate engines may not be altered from factory specs. Any evidence of tampering with engine components will result in disqualification, confiscation, fine, and suspension for balance of season. Tech staff reserves the right to impound motors for inspection or dyno testing. Factory/Certification Seals may be removed by Officials for tech purposes, allowing for more in-depth technical inspection throughout the season.**

**LS Spec Engine:**

**Wegner Automotive Research 5.3L engine only, must be used as produced. Maximum 2" set back as measured above. Must use 4412 2 bbl carb with adapter/spacer plate supplied in engine package. This engine package will be run on a trial basis, with base weight of 2850 lbs. Weight or other parameters may be adjusted during the racing season to maintain competitive balance.**

**RETURN SPRINGS & AIR CLEANER**

Double return springs required. Air boxes allowed with cowl inlet only.

**EXHAUST**

Headers allowed on all engines, maximum retail price \$650. **No** Tri-Y Headers or Merge-Collectors allowed on any engine.

Cast iron manifolds allowed with no alterations or modifications except generator bracket may be removed from exhaust manifold.

Exhaust must remain under car body and exhaust must exit behind driver, beneath car, pointing downward. 100-decibel max.

NO custom, one of a kind or homemade headers.

## **CLUTCH, TRANSMISSION & DRIVESHAFT**

Stock transmission with operating reverse gear required. No straight cut gears. Counter gear must be driven by input shaft.

Made-for-racing clutch required. Two disk 5 1/2" minimum. Carbon clutch not permitted.

Minimum diameter 2 1/2" driveshaft. Safety hoop required on front half of driveshaft.

Driveshaft must be painted a bright reflective color.

## **RADIATOR/COOLING**

Metal radiator mounted in front of engine, between frame horns.

Fan protection and overflow tank located in engine compartment required.

Water pump must be stock type in stock location. Antifreeze is not allowed.

## **FUEL & FUEL CELL**

Fuel cell complete with 1/8" steel can, interior bladder, foam baffle and rollover valve required. All vents must be valved to eliminate leakage.

Fuel cell must be mounted behind rear axle, between frame rails.

Rear protection or ASA bar must extend below bumper and be triangulated back to main frame.

Bottom of fuel cell must be at least 10 inches from the ground.

Filler must be accessed through deck lid. Filler spout may be extended, but not connected to bodywork.

Aeroquip or equivalent gas line required, must be located outside driver's compartment in protected location.

Gasoline only, must meet specific gravity of manufacturer.

Over tail chassis: max 15 gallon cell (25" x 18" x 10")

All cars: deflector plates no longer allowed as substitute for 1/8" thick can.

## **BODY & APPEARANCE**

Five Star, ARP or equivalent only.

**No Mustang or Camaro bodies allowed.**

Minimum roof height 47".

Spoiler: Single plane, 5" (measured from deck plane)x 60" (measured across rear) max.

Deck height 34.5" max.

Minimum ground clearance including nose and rocker panel is 4" with driver.

All windows must be of Lexan. 12" max vent (wing) window.

Weight penalties may be assessed for bodies not conforming to Five Star guidelines, dimensions, and/or templates.

## **WEIGHT**

Base weight for all cars - 2850 lbs.

GM Crate Engine and **no** updates - **2775** lbs

GM Crate Engine and **any** updates - **2825** lbs

**Ford and Mopar crate engines – 2825 lbs (may be adjusted up or down during the season)**

Gas allowance for Heats and Features one pound per lap.

Front axle 49% and right side 42% apply at all times. All weights include driver in seat.

Ballast must be painted white and lettered with car number.

## **WHEELS & TIRES**

Aftermarket made for racing, steel wheels required. 15"x 8" maximum.

**No tire pressure bleeders allowed. Remove bleeders from wheels, weld holes shut or add another valve stem. If bleeders are discovered at the track, we will require wheel removal and installation of 2cd valve stem. This may happen at any time, and may interfere with your hot lap time – not my problem.**

**MIS approved spec tires only allowed.**

Chemical treatment of tires (softening) not permitted.

**RADIOS:** All radio frequencies must be registered with MIS.

**TOW HOOKS:** Tow hooks on front and rear required.

**BATTERY:** 12-volt systems max.

Batteries must be securely mounted ahead of rear axle, away from fuel cell and lines.

Batteries in driving compartment not allowed.

Battery (negative post) disconnect switch recommended.

**TRANSPONDER: Required. Install no more than 12" above track surface, with unobstructed path to track, and arrow pointing down. Location is mandatory: forward from center of rear axle to center of transponder is 25 1/2".**