

# ***HAWKEYE DOWNS SPEEDWAY 2013 LATE MODEL RULES***

**Chief Tech Inspector: Mike Frieden, 319-396-7177**

**Race Promotions: Mike Becker, 319-365-8656 or 319-551-5783**

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 conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator, or official.

The Race Director and Track Officials shall be empowered to permit reasonable and appropriate deviation from any of the specifications herein or impose any further restrictions that in their 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.

The rules set forth shall be effective for Hawkeye Downs Speedway's 2013 racing season. Management reserves the right to amend, alter, suspend, delete, or supplement these rules as conditions warrant and without any prior notice. Any changes will be posted in the inspection area. It is your responsibility to be aware of changes posted. These rules shall govern the condition of all Hawkeye Downs Speedway events.

Hawkeye Downs Speedway is private property. Any person on this property without the permission of the owners or management is guilty of trespassing and subject to the penalties prescribed by law. Through your registration you have been given the authority and the right to be on this property in conjunction with your racing activity only. However, the management of the race track reserves the right to revoke and cancel this authority at any time it is felt that your presence or conduct is not in the best interest of auto racing, your fellow competitors, the fans, management, or employees of Hawkeye Downs Speedway.

**ALTHOUGH EVERY EFFORT HAS BEEN DIRECTED TOWARD COMPLETE, UNDERSTANDABLE, AND CORRECT RULES, AS WELL AS THE SAME FACTORS IN PUTTING THEM INTO PRINT, HAWKEYE DOWNS SPEEDWAY OFFICIALS CANNOT POSSIBLY ANTICIPATE EVERY SITUATION, CIRCUMSTANCE, OR INTERPRETATION. THE DEFINITION OF STOCK MEANS "NO MODIFICATIONS TO FACTORY PARTS OR FACTORY SPECIFICATIONS."**

**HAWKEYE DOWNS RESERVES THE RIGHT TO INSPECT, TECH, OR "TEAR DOWN" ANY COMPETING CAR AT ANY TIME REGARDLESS OF FINISHING POSITION.**

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**CAR REGISTRATION:** Registration fee is \$50.00 for the season. You can race one time without being registered and will receive your prize money but will receive NO points. Your 2<sup>nd</sup> race night appearance and after you will need to be registered to receive prize money or points. We will not "back pay" cars that are registered at a later date.

**1. GENERAL SAFETY RULES FOR DRIVERS :** Snell SA 2005 Full Face helmet and eye protection required and must be worn at all times car is on the track. SFI approved full Nomex fire suit, gloves, and shoes required. Must be tear free and clean. Fire retardant head sock, socks, and underwear recommended.

**Head and neck restraints are mandatory.** A minimum three inch wide five point safety belt assembly required. Belts must be mounted securely to roll cage. Recommend belts be no more than 1 year old. **Belts older than 3 years old will not be allowed.** Driver side window net required, minimum 16 inch X 20 inch ribbon or mesh style. Net must be mounted so latch is at top front of window. Kill switch required within easy reach of driver and must be clearly marked 'OFF' and 'ON.' Master shut off switch mandatory, within easy reach of safety crew. **All cars and driver equipment must pass Hawkeye Downs Safety inspection.**

**2. CHASSIS** Offset and perimeter chassis from all manufacturers are allowed for competition. No drilling or cutting holes to lighten any part of body, chassis, suspension, or bolts. The main frame rails on all chassis must be steel, 10 inches in circumference, such as 2" x 3" x .083" thick tubing or greater. Side rails must be located within the normal tread width of the car. Minimum wheelbase is 103" plus or minus 2". Maximum tread width is measured from centerline of both wheels. Frame to ground clearance (ride Height) minimum 3 inches. All added weight must be solid lead, painted white and have car number painted on it. Added weight must be securely bolted to or enclosed inside the frame (no hose clamps), and be located between the front and rear axles.

**3. ROLL CAGE** Must have a four-point roll cage structure constructed of minimum 1.75-inch by .090-inch outside diameter D.O.M. steel tubing. Entire structure must be integrally welded to the primary frame structure. Resilient padding (not pipe insulation) designed for roll bar use must be installed on any roll cage or frame member that can be reached by any extremity of the driver while the driver is normally seated with restraints fastened. This includes the steering wheel shaft. Minimum of four horizontal driver's side door bars. Must have either minimum of .125-inch thick steel plates welded into the left-side door bars or a left-side door plate minimum of .125-inch thick welded or bolted on the outside of the main door bars. Roll cage must be braced to front frame stub with a hoop section surrounding the engine compartment. Roll cage must be braced rearward with diagonal members connecting to rear frame section. Bottom bay of car in cockpit section must have "X" member, or equivalent, spanning laterally between main frame members. Foot well area of driver's compartment shall be protected from side impact by a substructure running from the left-front main roll cage upright to left-side frame integral with frame and roll cage members. Two vertical bars to protect drivers' feet are mandatory.

**4. BODIES** All cars must have a complete, painted body with full details, including headlight and taillight decals. Bodies must be ABC 2004 or newer models available from Five Star and ARP. Must conform to current ABC Body rules. Stickers on insides of all ABC body components must remain visible and must not be painted over. Rear spoiler: See component limit spreadsheet. Five Star Bodies or flat 12 inch side vent windows only. Rear bumper cover must not be altered or have the lower edge cut off. Stock dimension windshield and rear window made of polycarbonate are required. Must be braced internally to prevent bowing at speed. Hood must be stock shape and fit template. Ram Air and Hood Scoops not allowed. Carburetor air must enter from the base of the windshield and cutout at rear of hood not larger than 3 inches X 20 inches and be level. Rear deck must open to allow quick and easy pick-up by tow truck. Absolutely no ledges, shelves, horizontal deflectors, flat or straight sides, square corners, coffin style interiors, tub interiors, multi-plane spoilers, side boards, wings, skirts, scoop noses, fins, verticals ramps, interior wings, aerodynamic tunnels or flat roofs. No Holes, vents, modifications, etc., on mandated body panels.

**5. INTERIOR** Driver's seat must be a custom-manufactured, multi-layer aluminum seat constructed from solid aluminum sheet material from the seat bottom to above the driver's shoulders. Homemade seats are not permitted. Holes or any other modifications that have been made in the seat for weight reduction are not permitted. Seats must have padded full leg supports on both the left and right sides. Seats must have fully padded, reinforced head supports on both the left and

right sides of the driver's head. Headrests and hard surfaces around the driver's head must be padded with impact-absorbent material. It is strongly recommended that seats have padded pelvis, rib and shoulder supports on both sides. Driver's seat must be located in such a manner that the inside (left side) exterior surface of the seat is as far away as possible from the nearest longitudinal door bar member. Driver's window must have either wide-mesh or web-type safety net (string-type is not approved) with latch-link release mechanism. Spring-loaded releases are not approved. Net must be secured in place and centered in the door area, fastened to the upper roll cage horizontal member when the car is in competition. A left-side "cage net" is strongly recommended on all cars. A mesh-type roof net is recommended. These nets are to be installed in the top of the left side of the roll cage over the driver. Steering shaft must be padded or encased by a protective sleeve up to, but not including, the release mechanism. Quick-release steering wheel hubs are mandatory and must be of metal-to-metal type with no plastic components in the release mechanism. Collapsible steering shaft is recommended. Rear view mirrors allowed, either standard passenger car type or multi-pane, wide-vision types. Left side mirrors allowed, but must be mounted to the roll bar inside of body. Cars must carry on board a fully charged, mounted fire extinguisher of B or C dry chemical type, 2-1/2 pounds minimum capacity.

**RADIOS** 2-Way Radios may be used. Teams using 2-Way Radios must register Frequency with Track Officials. These frequencies will be publicized. Communication will be monitored by Speedway Officials. Spotter may stand in any approved area, but may not interfere with spectators or officials viewing of the event. Any misconduct by Spotter, including but not limited to vulgarity, instructing driver to disobey rules, instructing blocking, arguing with officials (including coming to control tower), arguing with other spotters, or interfering with spectators enjoyment of the event, will result in disqualification, fine, and suspension.

## **SUSPENSION**

1. One Shock per wheel. Must be non-reservoir type.

## **BRAKES**

1. Only ferrous material brake rotors allowed. No Carbon Fiber.
2. Re-circulators are not allowed

## **WHEELS**

1. All wheels must be 15-inch diameter steel wheels designed for racing with a 10-inch width maximum. (No Aluminum or Plastic Wheels).
2. Wheel Weights NOT allowed.

## **TIRES**

1. All cars use 10 inch Hoosier F50(right side) and F40(left side) tires purchased at Hawkeye Downs. (Consult 2013 LM Tire Rules)
2. No heating, soaking, softening, grinding, buffing, or changing the composition and character of tire allowed.
3. No Bleeder or pop-off valves

**ENGINE:** Mixing of engine and body styles is allowed at Hawkeye Downs. All Late Model competitors using Crate Engines must use one of the following unaltered Crate Engines. GM: 410 horsepower crate engine, part number 88958604. Dodge: part number P5007958. Ford: Part number M-6007-D347. McGunegill Ford part number ASA 425 LM. Aftermarket engine dampers are not allowed. Competitors must use damper from engine manufacturer, or approved manufacturer/ASA alternatives. Due to manufacturer changes, the Ford / Dodge crate engines may not be available and/or these part numbers may need to be changed. No Nitrous oxide equipment, No fuel injection, No supercharging, No turbo charging. Engine height: Ten (10) inches minimum center of crankshaft to ground. Engine must be mounted in car with No. 1 spark plug socket 3.5 inches behind left front upper ball joint (maximum tolerance is + or - .5-inch). Oil coolers are allowed. On-board computer and/or analysis equipment is not allowed at any time.

**CARBURETOR :** Carburetors must remain "Box Stock." Fine tuning of carburetor is allowed, utilizing only Holley replacement parts, but is limited to: Jets, Bleeds, Needle and Seat, Emulsion Bleeds, Power Valves, Accelerator Pump Nozzles, and Accelerator Pump Cams. Physical changes of permanently attached carburetor parts (Boosters, Throttle Plates, Throttle Body, Shafts, Metering Blocks, etc.), or alterations by means of machining, reshaping, or the act of allowing increased airflow as a result of additional measures, are not allowed. No Carburetor drop in spacers of any kind allowed. Any carburetor spacers used must conform to specific engine package rules.

**EXHAUST:** Exhaust pipes may join one pipe that may exit beneath or above the frame rail behind the driver and in front of the rear wheels. Exhaust pipes from the exhaust header collector must maintain the same diameter for the entire length of the pipe. All cars must have working mufflers with a maximum decibel reading of 98 db at 100 feet under racing conditions.

**RADIATOR** Must be mounted in stock location. Fan must have a shroud. Overflow catch can, 1/2 gallon or more, must be permanently installed ahead of engine firewall. NO ANTIFREEZE

**BATTERY** Battery & battery box must be securely mounted to a main frame rail member outside the driver's compartment., no lower than main frame rail. Battery must be isolated from the fuel cell area and be covered with plastic or lexan to eliminate threat of spark fire. No metal type covers. All lead weight secured in the battery box area must be encased in steel and partitioned from the battery.

**ELECTRICAL for Crate Motors** All cars must have a working onboard starter. No Digital Gauges or electronic monitoring computer devices capable of storing or transmitting information (except analog tachometer). Crane Cams Ignition part # 6000-6463-ASA LMS, complete with mag trigger, tech output, digital locked out rev limiter set at 6300 rpm (+/- 30 rpm) and Crane Cams coil PS92N, part # 730-0192 ASA LMS. Cars must utilize a single ignition system. Only one ignition box, one coil and one wiring system allowed. All ignition boxes MUST be mounted in the dashboard area on the right side of the centerline of the car. Hawkeye Downs will utilize a test rev limit chip. No operator-controlled, radio-controlled, computer-controlled or automatic traction control devices, ignition retarders, weight-transfer, weight-shifting, weight-jacking, or weight-altering devices. Brake bias control is the only "in-car" adjustment permitted. MSD ignitions are allowed.

**FUEL** All Late Model Competitors must use fuel approved by Hawkeye Downs Speedway. No Fuel additives, E-85, methanol or ethanol of any kind. No electric fuel pumps. No pressurized fueling systems. Fuel lines may not be routed through driver compartment.

**FUEL CELL** Fuel Cells mandatory. Integral foam filled bladder. Maximum capacity 22 gallons. Minimum 20 gauge steel container (No Aluminum). Must display production date. Any bladders five years or older will not be approved for competition. Fuel cell container must be a minimum of 10 inches above the ground plane. Fuel cell must be securely fastened to the framework and are required to have two, one-inch wide minimum, steel straps, top and bottom. Minimum 1/8 inch thick steel plate must be installed on back, or rear side, of fuel cell container. Must cover height and width of container.

**Hawkeye Downs Late Model Options  
with Component Limit Spreadsheet**

	<b>Hawkeye Downs Crate</b>	<b>Hawkeye Downs 9:1</b>	<b>ASAMWT ACE</b>	<b>ASAMWT 9:1</b>
Weight	2650	2750	2700	2750
Left	59%	59%	58%	58%
Engine	GM, Ford, Dodge crate	steel headed 9:1 per 2013 HD rules	10.5:1 ACE	aluminum headed 9:1
Carb	650 4 bbl	650 4 bbl	500 2 bbl	500 2 bbl
Ignition	choice of Crane or MSD 6300	MSD	MSD	MSD
Spoiler	6.5"	6.5"	6.5"	6.5"
Track width	65 +/- 1"	65 +/- 1"	64" +/- 1" 65 to 66 +25 lbs	64" +/- 1" 65 to 66 +25 lbs
Exhaust	any	\$300 no Tri-Y or merge No SS or custom	no SS or custom	no SS or custom
Shocks	\$800	\$800	\$800	\$800
Brakes	\$500	\$500	\$500	\$500
Engine setback	4	4	2	2
Clutch	5.5"	7.25"	5.5" \$1600	5.5" \$1600

**WEIGHTS AND MEASURES:** Total weight listed in component spreadsheet is a pre race weight. There will be a one pound per scheduled lap, fuel burn off allowance, that will be used to determine post race weight. Left side weight listed is a post race weight. The top 4 finishers will be weighed after the feature event with driver. **There will be no tolerance.** Minimum track width will be checked at center of both wheels at hub center height.

**HAWKEYE DOWNS 9-1 RACING ENGINES**

1. Any cast iron domestic engine, of standard production corporate model, may be run in any body style of standard production. No plastic or alum
2. No external oil pumps or dry sump systems. Altered oil pans, oil coolers optional.
3. No roller cams, no hard face overlay cams or mushroom tappets. Maximum valve lift .600 inch at valve.
4. No automatic cam timing devices; no belt drive. TIMING CHAIN ONLY
5. After market harmonic balancers allowed.
6. ENGINE DISPLACEMENT ENGINE BLOCK BORE SIZE  
 GM & Ford Maximum: 363 GM & Ford Minimum: 350 GM & Ford: Maximum: 4.060inch Minimum: 4.000inch  
 Chrysler Maximum: 372 Chrysler Minimum: 340 Chrysler 340: Maximum: 4.100inch Minimum: 4.040inch  
Chrysler 360: Maximum: 4.060inch Minimum: 4.000inch
7. No 180 Degree crankshafts
8. CYLINDER HEADS
  - A. Must be cast iron 2 valve per cylinder.  
No Chevy Vortec/L31 heads, no FORD Motorsports N351 heads.  
Fords may use Part No: 5302 or 53040 Cylinder Heads as produced from World Products.
  - B. Unaltered\*, O.E.M. original "as cast" form. Any evidence of sanding, polishing, relieving, grinding, porting, chemical treating, abrasive blasting, alterations to the original form, or the addition of material to the ports or combustion chambers, is not allowed.  
Multiple angle valve grinds permitted. Maximum angle of any cut cannot exceed 75 degrees.  
Any cut greater than 60 degrees must be done with a steel cutter (no stones).
  - C. The maximum allowable valve diameters are.....  
All heads except Ford Cleveland: Intake-2.020 Exhaust -1.625.  
Ford Cleveland: Intake-2.046 Exhaust -1.656. 5/16 valve stems will be allowed.
  - D. Combustion chambers may be "cc" matched by reseating valves only.
  - E. Intake gasket and head gasket surfaces may be re-machined (not angle milled) to improve sealing.
  - F. Any valve springs and retainers are permitted.
  - G. Valve guide material optional. Guides must remain in original position

- H. Screw in studs optional. Head may be cut for valve seals.
12. Compression ratio of 9.0:1 is set; 9.5:1 will be declared illegal. Determined by the volume gauge and electronic sonic tester (Whistler).
  13. Stock appearing valve lifter only (no roller or mushroom type). Diameter of lifter and lifter bores must be stock as produced for that engine. Lifter bores may be sleeved.
  14. Camshaft bearings must remain stock babbitt type (no roller).
  15. No Titanium crankshafts, connecting rods, wrist pins, or pistons.
  16. No Aluminum Rods
  17. Any type of rocker arm permitted.
  18. No pumps to create a crankcase vacuum will be allowed
  19. Oil pan access hole with a minimum of 1 inch diameter, for connecting rod inspection required.
  20. No nitrous oxide equipment

#### **INTAKE MANIFOLD**

1. All engines may run APPROVED street application, single carburetor, cast iron, unaltered intake manifolds (Bow Tie Intake Included) or-Approved Edelbrock "Victor Junior intakes (see below). No modifications or alterations of any kind allowed unless specified  
Must be able to easily remove heat shield from bottom for tech. inspection (Allen Bolts Recommended)

#### **Approved Edelbrock Victor Junior Intakes**

Chevrolet: 2972 (4 barrel), 2901(2 barrel). Dodge: 2915 (0340 head), 2920 (W-2 head). Ford: 2980 (4 barrel), 2940 (2 barrel)

#### **TRANSMISSION**

1. Transmissions allowed from any manufacturer. Must be available for purchase by any competitor for a maximum of \$1750 (racer listed price).
2. Transmissions must be manual-type and designed for use in automobile racing with a mandatory working reverse gear.  
No Automatic transmissions. No Overdrive transmissions.
3. Explosion-proof Bellhousing must have a minimum 2-1/2 inch (2.5") hole at bottom (to allow clear view of clutch).
4. Transmission coolers allowed.

#### **CLUTCH**

1. Minimum clutch disk diameter is 5.5 inches. (EXCEPTION: Internal clutch style transmissions).
2. No Carbon fiber clutches.

#### **DRIVESHAFT**

1. Frame must have a drive shaft containment hoop front and rear.
2. No Carbon Fiber Drive Shafts.
3. Driveshaft must be painted white.

#### **REAR END**

1. Quick-change or Ford 9-inch rear ends are allowed.
2. No independent rear suspension.
2. No Open tube rear ends.
4. Maximum camber of rear end tubes is 1.5-degrees.
5. Aluminum axle tubes are allowed.
6. Titanium parts of any kind are not allowed.